
Index

Principal entries of taxa are indicated by bold face page numbers; coloured plates by 'Pl.'; synonyms by cross-reference. The names of plants are distinguished by '(FUNGI)' or '(BOT.)'; of animals other than hexapods by phylum, class or order. The common names of vertebrates are listed under 'birds', 'fish', 'mammals', 'marsupials', 'monotremes', 'reptiles' and 'rodents'. Economically significant insects can be traced through the common name of the host or product.

- Aacanthocnema*, 450; *A. casuarinae* (Froggatt), 450
Abacetus, 612
Abantiades, 223, 829, 841; *A. magnificus* (Lucas), 836, 841
Abbey, H. M., 72, 294, 336, 337, 339, 342
Abbott, L. A., 110, 115
abdomen, 4, 17-23
Abdul-Nour, H., 690
Abdullah, M., 671
Abies (BOT.), 456
Abispa, 973, 979-80, 981
Ablabus, 664
Aborigines, 114, 221-5, 340, 441, 673, 831, 871, 979; art, 224-5, 230, 340
Abrieta, 467; *A. curvicosta* (Germar), 467
Abul-Nasr, S. E., 726
Acacia (BOT.), 81, 84, 99, 181, 194, 222, 223, 225, 343, 384, 399, 442, 447, 448, 449, 459, 461, 463, 468, 473, 479, 494, 499, 503, 504, 508, 509, 513, 515, 563, 643, 646, 649, 664, 674, 677, 678, 680, 682, 831, 840, 841, 842, 844, 848, 850, 851, 863, 868, 869, 870, 885, 887, 889, 891, 897, 898, 899, 906, 907, 908, 912, 945, 952, 956, 962, 964, 965; *A. aneura*, 223, 224; *A. dealbata*, 900; *A. decurrens*, 860; *A. georginae*, 81; *A. glaucescens*, 81; *A. implexa*, 868; *A. kempeana*, 871; *A. ligulata*, 223, 851; *A. linifolia*, 83; *A. pendula*, 228; *A. podalyriifolia*, 854; *A. salicina*, 81
Acaena (BOT.), 456
Acaenitinae, **945**
Acalyphes philorites Turner, 889
acalyptate Diptera, 82, 730-5 *passim*, 764, 770
Acanaloniidae, 443
Acanthacisinae, 529, 531, **541**
Acanthaeschna, 309
Acanthametropus, 188
Acanthanura, 260
Acanthaspidinae, *see* Reduviinae
Acantherpestes (MYRIAPODA), 145; *A. vicinus*, 145
Acanthobetyla, 950
Acanthoceridae, *see* Ceratocanthidae
Acanthocnemidae, 563, 564, 566, 572, **646-7**
Acanthocnemus nigricans Hope, 566, 646, 647
Acanthocoris, 59
Acanthohelena, 746
Acanthomurus, 261
acanthophorites, of Diptera, 724
Acanthopsylla, 711, 715; *A. jordani* Mardon, 713
Acanthopteroctetidae, 832, 833, 837
Acanthornis magnus (AVES), 770
Acanthoscelides, 563, 677; *A. obtectus* (Say), 677
Acanthoserphus, 952
Acanthosomatidae, 444, 506, **507**, Pl. 3
Acanthosomatinae, **507**
Acanthostethus, 991, 992
Acanthucus, 473
Acanthurella, 262
Acaraptera, 497
Acarina, 26, 68, 76, 98, 143, 183, 207, 227, 229, 235, 246, 257, 264, 274, 304, 314, 339, 352, 377, 400, 408, 411, 441, 442, 513, 515, 530, 559, 560, 562, 621, 658, 732, 749, 794, 831, 929, 968, 980, 987
Acarodynerus, 980
Acarozumia, 980; *A. amaliae* Saussure, 981
Acartophthalmidae, 734, 774
accessory glands, *see* glands
acclimation, 242
Acedestia, 710, 714; *A. chera* Jordan, 706, 708, 714
Acedestiini, 709, 714
Acentropinae, *see* Nymphulinae
Acercaria, *see* Paraneoptera
Acerellidae, 268
Acerentomidae, 266, 267, **268**
Acerentomoidea, **267-8**
Acerentomon, 266
Acerentulus, 268; *A. sexspinatus* Womersley, 268
Aceria chondrillae (ACARINA), 235
acetate, 336
acetylcholine, 42
acetyldopamine, *N*-acetyldopamine, 34-5, 58
acetylglucosamine, *N*-, 34
Acheta domesticus (Linnaeus), 386
Achias, 770; *A. australis* Malloch, 769
Achilidae, 433, 439, 440, 443, 474, **478**, 971, Pl. 3
Achilixiidae, 443
Achilus flammeus Kirby, 433, 478, Pl. 3
Achroia grisella (Fabricius), 887
Achtelig, M., 137, 138, 176
Achterberg, C. van, 916, 923, 945-9 *passim*
Achthosus westwoodi Newman, 666
Aciagrion fragilis (Tillyard), 306
acid phosphatase, 229
Acizzia, 449; *A. acaciaedecurrentis* (Froggatt), 432, 449, 450
Acizzinae, 448, **449**
Acker, T. S., 527

- Ackery, P. R., 113, 893, 895, 897
 Acleridae, 443
 Aclopinidae, 564, 628, **629**
Acmena (BOT.), 841, 873; *A. smithii*, 853
Aconopsylla, 449; *A. sterculiae* (Froggatt), 449
 Acontiinae, **912**
 Acordulecerinae, 934
Acraea andromacha (Fabricius), 898
 Acraeinae, **898**
Acroetrichus, 759
Acrida, 391; *A. conica* (Fabricius), 390
 Acrididae, 34, 41, 44, 58, 62, 63, 65, 70, 72, 163, 164, 370, 371, 374, 375, 378, 387, **389-91**, 392, 647, 782, 954, 965, 991, Pl. 2
 Acridinae, 374, 387, 389, 390, **391**, 392
 Acridoidea, 21, 49, 164, 371, 376, 377, 378, 387, 388, **389-91**, 392
Acridophagus flaviscutellaris (Roberts), 377
Acridotarsa, 850, 853
Acripeza reticulata Guérin-Ménéville, 99, 372, 384, Pl. 2
 Acritini, 575
Acrocercops, 828, 850, 852, 853-4; *A. antimima* Turner, 853-4, 856; *A. calicella* (Stainton), 854, 856; *A. plebeia* (Turner), 854; *A. tricuneatella* (Meyrick), 854
 Acroceridae, 97, 719, 729, 732, 734, 751, 753, **755-6**, Pl. 6
 acroglossal buttons, 979
 Acromantinae, 353, **355**
Acromantis australis Saussure, 355
 Acronictinae, **914**
Acronychia (BOT.), 869
Acrophylla titan (Macleay), 397, 402
Acropterus nanula (Warren), 890, 893
Acropyga, 441, 985, 989
Acrorrhinium, 493
 acrosternite, 5
 acrostylus, 265
Acrotelsa collaris (Fabricius), 277
Acrotelsella, 276, 277, 278; *A. devriesiana* (Silvestri), 277
 acrotergite, 5
Acrotichis, 619
Acruroperla, 315, 316, 317
 Actaletidae, 256, 258
 Actinomycetales (BACTERIA), 58
Actinopteryx fucicola Allibone, 619
Actinoscytina belmontensis Evans, 169
 Actinoscytinae, *see* Progonocimicidae
Actinus, 624
 aculeae, *see* microtrichia
 aculeate Hymenoptera, 175, 441, 918-27 *passim*, 935, 936, 938, 961, 969, 970-1000
 aculei, of Lepidoptera, 819
Acyrtosiphon kondoi Shinji, 108, 455, 456; *A. pisum* (Harris), 455
 Adams, D. J. H., 624
 Adams, E. N., 120
 Adams, M. B., 238
 Adams, P. A., 527, 537
 Adamski, D., 868
Adapsilia illingworthana Bezzi, 769
Addaea, 886; *A. polyphoralis* (Walker), 886; *A. subtessellata* Walker, 886
Adelges, 456
 Adelgidae, 430, 443, 453, 455, **456**
 Adelidae, 78, 80, 822, 832, 833, 841, 842, **843-4**, 845, Pl. 7
 Adeliinae (HYMENOPTERA), 947, **948**
 Adeliini (COLEOPTERA), 563, 665, 667
 Adelinae, **843-4**
Adelium, 667
Adelius, 948
 Adelognatha, 682
 Adelognathinae, 945
 Adeloidea, *see* Incurvarioidea
Adelotopus, 560, 614
Adelphion, 945
Adelphoderia, 263; *A. regina* Greenslade, 255, 263-4
Ademosyne speciosa Riek, 177
 Ademosynidae, 176, 177, 178, 617
Adenia (BOT.), 898
 Adephega, 28, 62, 176, 177, 178, 546-61 *passim*, 564, 565, 607, **609-16**
 Aderidae, 550, 552, 561, 565, 574, 577, 603, 604, 670, **671**
Aderus, *see* Xylophilus
 adfrontal areas, sutures of larva, 825
 adhesive structures, 73, 77-8, 93, 254, 280, 283, 284, 289, 290, 292, 313, 430-1, 456, 481, 507, 510, 528, 538, 547, 559, 616, 621, 624, 640, 650, 675, 699, 742, 879, 925, 943; substances, 96, 423, 513, 624, 723, 790, 825
Adiantum aethiopicum (BOT.), 887
 Adiheterothripidae, 514
Adinolepis, 608; *A. mathesoni* (Neboiss), 549
 adipocytes, 59
 adipokinetic hormone, 50, 104
Adistemia watsoni (Wollaston), 660
 Adiyodi, K. G., 320
 admedian lines, 918
Adolaryia bairdi Kukulová-Peck and Richardson, 158
Adoryphorus couloni (Burmeister), 562
Adranes taylori Wickham, 624
Adrisa, 506, 507
Adroctenes magnus Maa, 95, 490
Adrothrips intermedius (Bianchi), 511
 adult, 65, 66-7
 aedeagus, 22; in Coleoptera, 552
Aedes, 115, 116, 744; *A. (Chaetocruomyia)*, 744; *A. (Finlaya)*, 744; *A. (Ochlerotatus)*, 744; *A. (Stegomyia)*, 212
A. aegypti (Linnaeus), 218, 230, 721, 744; *A. albopictus* (Skuse), 246; *A. alternans* (Westwood), 719; *A. australis* (Erichson), 744; *A. lineatopennis* (Ludlow), 744; *A. notoscriptus* (Skuse), 121-2, 744; *A. vigilax* (Skuse), 230, 744
 Aegialitinae, **669**
Aegicerus corniculatum (BOT.), 870
Aenasiella, 968
Aenetus, 840-1, 881; *A. dulcis* (Swinhoe), 841; *A. eximia* (Scott), 840-1, Pl. 8; *A. lignivener* (Lewin), 840
 Aenictopecheidae, 434, 442, 443, 480, **481**
 Aenictopecheinae, **481**
Aenictus, 980, 984, 985, 989; *A. aratus* Forel, 988
Aeolochroma, 890; *A. metarhodata* Walker, 890
 Aeolothripidae, 169, 512, 513, 514, **515**
 Aepophilidae, 443, 485
Aepyrymnus rufescens (MAMMALIA), 422
 aerial plankton, 12, 104, 184, 230, 231, 415, 419, 730, 925, 929
 Aerophasmata, 164
Aeroplana, 164; *A. mirabilis* Tillyard, 164
 Aeroplanidae, 164
Aeropteryx, 540, 541
 aeropyles, 63, 437
 Aeschniidae, 179
Aeshna brevistyla (Rambur), 302, 309
 Aeshnidae, 72, 162, 295-304 *passim*, 308, **309**, Pl. 1
 Aeshninae, 308, **309**
 Aeshnoidea, 299, 304, **309**
 aestivation, 74, 107, 222, 256, 454, 747, 831, 914
 Aetalionidae, 443
Aethina: *A. (Circops)*, 649; *A. (Olliffura)*, 649
Aethriamanta, 310
Aethus indicus (Westwood), 437
 Afifi, S. A., 114
Afroboganium, 650
Afrotheora, 840
 Afrotropical Region, 180, 182
 Agalliinae, **471**
Agamerion, 919, 963, 964
 Agamidae (REPTILIA), 986
 Aganidae, 831, 832, 905, 906, 909, **910**, 911, 912, 913, Pl. 8
 Agaonidae, 82, 920, 926, 930, 957, 958, 959, **962-3**, 964
 Agaoninae, 926, **963**, 964
Agape, 910, 913; *A. chloropyga* (Walker), 910, Pl. 8
Agapetus, 789, 790, 794, 799, 800, 802, 810; *A. tasmanicus* (Mosely), 802
Agapophytus, 756; *A. flavicornis* Mann, Pl. 6
Agapytho, 650
 Agaricales (FUNGI), 654
Agarista agricola Donovan, 911, 914
 Agaristinae, 509, 830, 887, 905, **914**
Agasicles hygrophila Selman and Vogt, 563, 678
Agasma semicrudum Newman, 668
 Agassiz, A., 238
 Agathia, 891
 Agathidiinae, 947, **949**
Agathiphaga, 172, 174, 828, 834, 835; *A. queenslandensis* Dumbleton, 835, 836; *A. vitiensis* Dumbleton, 835
 Agathiphagidae, 30, 138, 194, 787, 819, 822, 824, 825, 828, 831, 833, 834, **835-7**
 Agathiphagoidea, 831, **835-7**
Agathis (BOT.), 30, 179, 194, 585, 679, 835; *A. robusta*, 459
Agathis (INSECTA), 949
Agathomyia, 762
 Agdistinae, 883, **885**
Agdistopsis halieutica (Meyrick), 885
 Ageniellini, 975
 Agetopanorpidae, 172
 aggregation, *see* gregarious insects
Aglaopus pyrrhata (Walker), 884, 886
 Agleninae, **669**
Aglenus, 581, 606, 669; *A. brunneus* (Gyllenhal), 669
 Aglossata, 817, 819, 828, 831, 833, 834, **835-7**
 Aglycyderidae, 565, 678
Agnesiotis, 680
 Agonicini, 612
 Agonini, 613
Agonis (BOT.), 456, 841
Agonoscelis rutila (Fabricius), 509
Agonoxena, 862, 865; *A. argaula* Bradley, 865; *A. phoenicia* Bradley, 865, 866
 Agonoxenidae, 832, 859, 862, **865**, 866
 Agraeciini, 382
Agraptochorixa, 488; *A. eurynome* (Kirkaldy), 489
 agricultural pests, 104, 107-8, 226, 342, 364, 367, 377-8, 382, 386, 391, 442, 452, 455, 458, 493, 502, 509, 562, 667, 677, 678, 732, 749, 780, 831, 887, 914, 987
 Agrilinae, **632**
 Agriocnemidinae, **306**
Agriocnemis, 306
Agrioptera, 310
Agriophara, 859, 863-4; *A. platyscia* Lower, 861, 864
 Agriopocorinae, **503**
Agriopocoris, 503, 505
 Agriotypinae, 945
 Agrius, 904
 Agromyzidae, 92, 724, 732, 734, 766, 775, 940, 948, 956, 962, 965
Agrois, 108, 231, 822, 829, 914; *A. infusa* (Boisduval), 69, 107, 222-3, 225, 829, 831, 914
 Agrypninae, 563, **637**
Agrypnus, 562, 637; *A. caliginosus* (Guérin-Ménéville), 555; *A. variabilis* (Candeze), 637
Agyrtacantha dirupta (Karsch), 309
 Agyrtidae, 564
 Agyrtodini, 621
Ahamitermes, 339, 341, 346; *A. nidicola* Mjöberg, 343
Ahasverus advena (Waltl), 651
 Ahlquist, J. E., 244, 250
 Ahmad, I., 504

- Ahmad, M., 331
Aictis, 878
 Aiken, R. B., 435
 air-sacs, 39, 41, 44, 50, 299, 465, 676, 728, 743
Aiteta iridias (Meyrick), 914
 Aitken, A. D., 563, 645, 646, 651, 653, 654, 660
 Akabane disease (virus), 108, 746
Akapala, 966
 Akapalinae, 966
 Akre, R. D., 386, 624
Alaptus, 415, 970
 alarm: behaviour of *Cryptocercus*, 102; calls of Orthoptera, 375; pheromones, 55, 453, 986
Albardia, 540
Albuna oberthuri (Le Cerf), 877
Alcaeus, 509
Alcides zodiaca (Butler), 892-3, Pl. 8
 Alcock, J., 927
 aldehydes, 229, 554
 alderflies, *see* Megaloptera
 Aldrich, J. R., 435
Aldrovanda vesiculosa (BOT.), 86
Alectoria superba Brunner, 384, Pl. 2
Aleiodes, 948
Aleochara, 622
 Aleocharinae, 559, 560, 561, 562, 622-3
Aleurocanthus, 451
Aleuroclava eucalypti Dumbleton, 451
 Aleurodicinae, 452
Aleurodicus destructor Mackie, 452
Aleurodothrips, 515
Aleuronympha, 170
 Aleuropteryginae, 535
 Alexander, C. P., 205, 723, 740, 742
 Alexander, J. O., 830
 Alexander, R. D., 18, 21, 114, 376, 384
 Alexiidae, 565
Aleyrodes, 452
 Aleyrodidae, 28, 78, 167, 429-34 *passim*, 437-43 *passim*, 450-2, 535, 953, 968
 Aleyrodina, 168
 Aleyrodinae, 452
 Aleyrodoidea, 170, 431, 443, 444, 445, 448, 450-2
 algae, 68, 284, 732, 801; as food, 77, 273, 284, 287, 288, 289, 313, 392, 415, 420, 562, 609, 614, 619, 623, 634, 635, 669, 777, 794, 800, 801, 803, 807, 809, 887, 910; coralline algae, 74, 807
 alimentary canal, 49, 56-9
 alitrunk, 918, 980
 alkaloids, 60, 78, 493
 alkanes, *n*-, 34
Allactoneura, 751
 Allan, R. M., 708
Allatelia, 277; *A. hilli* Silvestri, 278
 Allbrook, P., 294
 allectomy, *see* de-alation
 Alleculidae, *see* Tenebrionidae
 Alleculinae, 665, 666, 667
 allelochemicals, 78-81, 85, 92
Alleloplasis, 479
 Allen, R. K., 293
 allergic reactions to insects, 226, 227-9, 285, 325, 709, 744-5, 746, 755, 794, 830-1, 902, 907, 929, 987
 alligator weed, *see* *Alternanthera philoxeroides*
Allium (BOT.), 455
Allobaccha, 763
Allocader leai (Hacker), 493
Allocasuarina (BOT.), 461
 Allocorynidae, 565, 678
 Allodapini, 994, 999-1000
Alloecella grisea Banks, 814, 815
Alloeorhynchus, 491
Allomachilis, 273, 274; *A. froggatti* Silvestri, 18, 19, 21, 98, 273, 274
 allometry, 113, 513, 561, 630
 allomonies, 55, 513, 636
Alloparmulus pulchellus (Lea), 657
 Allophylopsini, 772
Allora, 893
 Alloraphidiidae, 176
 Allothrips, 515
Allotrissocladus, 74, 745
Allotropa, 953
Alloxysta, 956; *A. victrix* Westwood, 955
 Alloxystinae, 956
 Allsopp, P. G., 624, 627, 629
 Allwood, A. J., 685, 694
Alocasia (BOT.), 777; *A. macrorrhizos*, 777
Alophora, 784
 α -pinene, *see* pinene
 Alphitobiini, 667
Alphitobius: *A. diaperinus* (Panzer), 667; *A. laevigatus* (Fabricius), 667
Alphitonia (BOT.), 852, 858
 Alsop, D. W., 322, 324, 325
Alternanthera philoxeroides (BOT.), 563
Althaea, 656
Altica pagana Blackburn, 674, 677
 Alticini, 547, 672, 674, 675, 677, 678
 Alticinae, *see* Galerucinae
Alucita, 883, 888; *A. phricodes* Meyrick, 882, 883; *A. pygmaea* Meyrick, 883
 Alucitidae, 832, 882, 883, 888
 Alucitoidea, 821, 832, 833, 846, 882-3
 alula, 14
 Alydidae, 171, 439, 440, 444, 503, 504, 506
Alyogyne hakeifolia (BOT.), 85
Alysia manducator (Panzer), 948
 Alysinae, 732, 946, 947, 948
 Alysiini, 948
 Amarygmni, 665, 667
Amarygmus, 665
Amata, 905, 909, 910; *A. aperta* (Walker), 910; *A. trigonophora* (Turner), 907, 910
 Amathusiinae, 897
 Amatinae, *see* Ctenuchinae
 ambient vein of wing, 15
Amblyaspis, 952
 Amblycera, 94, 421-6 *passim*, 427
 Amblyopinini, 93
Amblyopone, 982, 983, 984, 985, 986, 989; *A. australis* Erichson, 122, 493, 988; *A. leae* Wheeler, 122
 Amblyoponini, 985
Amblypelta, 504
 Amblypygi (ARACHNIDA), 143
 Ambositrinae, 930, 950, 951
 Ambrosia beetles, *see* Platypodinae
 ambrosia fungus, *see* *Ascoidea*
 Ambryinae, 488
Ameghinoa, 987
Amegilla, 920, 993, 999; *A. cingulata* (Fabricius), 997
Ameletoides, 188, 281, 284, 288, 289; *A. lacusalbinae* Tillyard, 287
 Ameletopsidae, 285, 286, 287, 288, 289, 290, 292
Ameletopsis, 188
Ameletus, 188
 Ameniinae, 731, 781, 782
 ametaboly, 66, 273
 Ametropodidae, 285
 Amicrocentrinae, 947
 amines, 229
 amino acids, 43, 57, 58, 61, 62
Amira, 968
 Amiseginae, 97, 400, 972, 973, 974
Amitermes, 330, 334-41 *passim*, 345, 346; *A. laurensis* Mjöberg, 336, 339, 345, 346; *A. meridionalis* (Froggatt), 337, 338, 339, 345; *A. neogermanus* Hill, 343; *A. vitiosus* Hill, 278, 338; *A. xylophagus* Hill, 337
 Amitus, 953
Anmatomus, 991
 ammonia, 60
Amorphila, 991
 Ammophilini, 991
 Amorhini, 442
Amorbis, 436, 504; *A. alternatus* Dallas, 439
Amorphocephalus, 561
 Amorphoscelidae, 353-5
 Amorphoscelinae, 353
Amotuioides breviscapus Girault, 962
 Amphaces, 506, 507
 Amphibia, *see* Anura
 Amphibicoriomorpha, 482
 Amphibicorisae, 444, 445, 482
 Amphicnemidinae, 306
Amphicrossus, 650
 Amphientometae, 413, 416
 Amphientomidae, 168, 416, 417, 418
Amphientulus, 268; *A. alienus* (Tuxen), 268; *A. ambiguus* (Tuxen), 268
 Amphimesenoptera, 133, 138, 140, 142, 172, 173, 174
Amphimermis bogongae (NEMATODA), 831
 Amphipodinae, 618
 Amphipoda, 32
 Amphipsocidae, 416, 418, 419
 Amphipterygidae, 298, 300, 304, 306, 307, Pl. 1
 Amphipyrrinae, 912, 914
Amphistomus, 630
Amphithera, 850; *A. heteroleuca* (Turner), 851, 853
 Amphitheridae, *see* Roeslerstammiidae
 amphitropical distribution, 185, 197
 Amphizoidae, 550, 564, 609
Amphylaeus, 996
 Ampulicinae, 990, 992
Amsacta, 822, 909, 912, 913
Amusurgus kanyakis Otte and Alexander, 385
 Amycterinae, 563, 673, 681, 682
Amygdalops, 777
 amylase, 53, 57
Amylostereum areolatum (FUNGI), 234
Amyna natalis (Walker), 912
Amyotea, 509
Anabarhynchus, 756; *A. calceatus* Schiner, 757
Anabropsis, 380
 Anacardiaceae (BOT.), 913
Anacharis, 955, 956
 Anacharitinae, 530, 955, 956
Anaciaeschna jaspidea (Burmeister), 309
Anacis, 945
 Anactinae, 304, 308, 309
Anadastus, 654
Anadevidia peponis (Fabricius), 914
 anagenesis, 119
Anagrus, 970; *A. frequens* Perkins, 970
Anagyrus, 967
 Anajapygidae, 270
 anal area (wing), 13
 anal brace, 17
 anal gills, 313, 317, 559, 634, 635, 746
 anal papilla, 792
 anal pyramid, of Odonata, 301
 anal vein (wing) 15, 17
Analetris, 188
 analogy, 114
Anamesia polyzona (Walker), Pl. 2
 anamorphosis, 266
 Ananthakrishnan, T. N., 513
Ananusia, 967
Anapahais: *A. java* (Sparman), 829, 897; *A. java teutonia* (Fabricius), 107
Anaphes diana (Girault), 970
Anaphothrips, 515; *A. obscurus* (Müller), 513
Anaplecta, 328
 Anaplopiniae, 669
Anaplopus tuberculatus Blackburn, 669
Anarsia, 868-9; *A. molybdota* Meyrick, 869
Anasa, 503
Anastatus, 967
 anastomosis, of wing veins, 790
 anatergite, 721
Anaticola crassicornis (Scopoli), 427
Anatoecus dentatus (Scopoli), 427
 anatomical planes, 3
 Anatriata, *see* Lonchopteroidea
Anatrichus, 780

- anautozenous Diptera, 731
Anax, 309
 Anaxyelidae, 930, 931, 932, 935
Ancaudellia, 329
Anchicera, 653
 Anchytarsinae, 569, 595
Ancistria, 651
 Ancistropsyllidae, 710
Ancita, 673-4
Ancyloneura, 935
Ancylotropis waterhousei Jekel, 679
Ancyrona laticeps Olliff, 645
 Ander, K., 392
 Andersen, A. N., 644
 Andersen, N. M., 135, 432, 434, 444, 482, 483, 484, 485
 Anderson, D. T., 127, 130, 241
 Anderson, J. M. E., 618
 Anderson, N. H., 793
 Anderson, R. S., 621
 Anderson, S. H., 89
 Ando, H., 357, 358, 360
Andrallus, 509
 André, E., 977
Andrena complexa Viereck, 687-8
 Andrenidae, 687, 695, 931, 993
 Andrewartha, H. G., 70, 241, 246
Andrewarthaia, 515
 Andrews, F. G., 956
 Andrews, H. N., 77
Andricus, 956
 andrium, of Diptera, 726
 androconia, 819
 andromorph, 299
Aneipo, 478
 anellus: of Hymenoptera, 916; of Lepidoptera, 822
Anemosa exanthes (Meyrick), 884, 887
 anepimeron, 10
 anepisternum, 10
 Aneshansley, D. J., 614
 Aneurinae, 987
 Aneurinae, 497
 Angara, 141, 144
 Angiospermae (angiosperms) (BOT.), 84, 85, 144, 194, 448, 452, 453, 464, 468, 474, 828, 848, 862, 931, 932, 934
Angophora (BOT.), 862, 864, 870, 935, 994
Anilicis, 638
 animal fibres, pests of, 563, 642, 830, 850; see also carrion
Anischia, 573
Anischys, 507
 Anisembiidae, 408
Anisocentropus, 787, 789, 796, 815, 816; *A. banghaasi* Ulmer, 788; *A. bicoloratus* (Martynov), 800, 808, 814
Anisodes, 891; *A. turneri* Prout, 891
 Anisolabididae, 363, 364, 366-7
 Anisolabidinae, 366-7
 Anisolabidoidea, 364, 366-7
Anisolabis, 366; *A. littorea* (White), 363
Anisolepisma, 278
Anisomeristes, 660
Anisomorpha, 398; *A. buprestoides* (Stoll), 398
Anisopheidole, 982
 Anisopinae, 488
 Anisopodidae, 719, 720, 728-42 *passim*, 747, 748
Anisops, 488
 Anisoptera, 13, 73, 120, 162, 179, 294-305 *passim*, 308-10
Anisopteromalus, 965
 Anisotomidae, see Leiodidae
Anisozya pieroides (Walker), 99, 890, Pl. 8
 Anisozyoptera, 162, 298, 299, 304, 305
Ankylopteryx, 539
 Annulipalpia, 795
 Anobiidae, 29, 557-64 *passim*, 576, 585, 588, 593, 598, 641, 643-4, 646, 656, 965
 Anobiinae, 643, 644
Anobium punctatum (Degeer), 644
Anochetus, 986, 989
 Anocinae, 454
Anoconeossa, 449
Anomalaphis, 456; *A. comperei* Pergande, 456
Anomalobittacus, 698
Anomalochrysa, 539
Anomalomydas, 758
Anomalon, 945
 Anomaloninae, 945
 Anomalopsychidae, 795
Anomalopsylla, 449
 Anommatinae, 656
Anommatus, 562, 582, 603, 656; *A. duodecimstriatus* (Müller), 656
Anomoses, 839; *A. hylecoetes* Turner, 836, 840
 Anomosetidae, 831, 832, 833, 836, 838-40
Anopheles, 61, 112, 115, 116, 744; *A. amictus hilli* Woodhill and Lee, 229; *A. annulipes* Walker, 229-30, 744, 745; *A. farauti* Laveran, 112, 229, 744
 Anophelinae, 212, 744
 Anophelini, 744
 Anoplodermatidae, 565, 672
Anoplognathus, 80, 562, 563, 628, 630, 771; *A. aureus* Waterhouse, Pl. 4; *A. pindarus* Carne, 557; *A. smaragdinus* Ohaus, Pl. 4; *A. viriditarsis* Leach, Pl. 4
Anoplostethus laetus Rothschild and Jordan, Pl. 4
 Anoplura, 94, 227, 421-6 *passim*, 427-8
Anotylus, 623
Anselmella, 969
 Anseriformes (AVES), 423
 ant crickets, see Myrmecophilidae
 ant mimics, 100, 352, 353, 377, 382, 402, 440, 491-3 *passim*, 501, 503, 504, 515, 769, 771, 830, 927, 934, 971, 972, 973, 975, 977, 990
 ant-plants, 83-4, 985
 Antarctica, 68, 178, 180, 190, 191-5 *passim*; Antarctic element, 181
 Antartopteraria, 312, 313, 314
Antarctophthirus ogmorhini Enderlein, 68, 69
Antargidium, 934
Antechinus (MAMMALIA), 400, 715; *A. flavipes*, 714
 antecosta, 5; antecostal suture, 5
Antelientomon, 267
 antennae, 7, 42, 44, 93; as claspers, 252, 421, 705; capitate, 545; clavate, 545; clubbed, 917; filiform, 545; flabellate, 545; geniculate, 545, 917; incrassate, 545; lamellate, 545; moniliform, 545; pectinate, 545; prehensile, 90; serrate, 545
 Antennata, 127
 antennomeres, 7
Anteon, 971, 972
 Anteoniae, 971
 Antequerinae, 868
Antestia, 689, 690
Anthela, 828, 900, 902, 939; *A. excellens* (Walker), 900, 901; *A. nicotiae* (Boisduval), 830, 900
 Anthelidae, 228, 819, 830, 831, 832, 899, 900, 901, 902, 939
 Anthelinae, 900
 Anthicidae, 519, 563, 565, 574, 584, 586, 588, 599, 602, 603, 606, 660, 670, 671, Pl. 5
 Anthicinae, 584, 586, 588, 603, 670, 671
Anthicus, 671; *A. australis* King, 670; *A. floralis* Linnaeus, 671
Anthidiellum, 994, 999
 Anthidiini, 999
Anthobosca, 977, 978
 Anthoboscinae, 977, 978, 979
Anthochaera carunculata (AVES), 400
 Anthocoridae, 431, 440, 441, 442, 443, 488, 489, 490, 491, 513
 Anthocorinae, 489
Anthomyia punctipennis Wiedemann, 733, 781
 Anthomyiidae, 733, 735, 764, 767, 780, 781
 Anthomyzidae, 734, 767, 777
Anthophiloptera, 382; *A. dryas* Rentz and Clyne, 382
 Anthophoridae, 920, 927, 931, 948, 968, 993, 994, 995, 997, 999-1000, Pl. 5
 Anthophorinae, 997, 999
 Anthophorini, 999
 Anthracinae, 759
Anthrax, 759
 Anthreninae, 563, 642, 643
Anthrenocerus australis (Hope), 642
Anthrenus, 642, 757; *A. verbasci* (Linnaeus), 642, 643
 Anthribidae, 544, 550, 565, 578, 579, 585, 592, 598, 678, 679, 952
 antibacterial activity, 62, 85, 92, 561
 antibiotic chemicals, 987
 anticoagulant saliva, 226, 439
Anticrates, 878
 anticrypsis, 99
 antifungal activity, 85, 256, 363, 561
 antigen 5, 229
Antihepialus, 840
Antimima cryptica Turner, 98
 antimicrobial action, 62
Antiochrus, 627
Antipodocia turneri Mosely, 799, 806, 812, 815
 Antipodoeciidae, 795, 796, 798, 799, 806, 807-9, 812, 815
Antipodogomphus, 309
Antipodophlebia, 309
Antisolabis, 367
Antispila, 843
 Antissinae, 755
 Antliarrhininae, 678
 antlions, see Myrmeleontidae
 Antliophora, 133, 136, 139-40, 142, 172, 173, 174
Antriadophila, 751
Antrocephalus, 961
 ants, see Formicidae
 Anura (AMPHIBIA), 91, 96, 181, 244, 248, 249, 257, 284, 304, 314, 324, 339, 351, 355, 415, 486, 519, 530, 562, 616, 732, 743, 780, 794, 929, 986
 anus, 19, 59; see also under anal
Anyllis leiala Kirkaldy, 468
 Anystidae (ACARINA), 257
Anzora unicolor (Walker), 479
 Aoki, S., 454
Aonidiella: *A. aurantii* (Maskell), 442, 462, 463, 464; *A. citrina* (Coquillett), 464
 aorta, 61
Apachelelytron transversum Carpenter and Kukulová, 166
 Apachyidae, 364, 366, 367
 Apachyoidea, 364, 367
Apachyus, 367; *A. peterseni* Borelli, Pl. 2
Apanteles, 949
 Apatelodidae, 832
Apatetris, 869; *A. miarodes* (Meyrick), 869
Apenesia, 972, 973
Apetaenus, 779
Aphaereta aotea Hughes and Woolcock, 948
Aphanicera, 318
Aphaniosoma, 773
Aphanocephalus, 657; *A. bimaculatus* Lea, 657
Aphanogmus, 940
Aphanomerella, 952
Aphanomerus, 952-3
Aphela, 682
 Aphelinae, 441, 442, 452, 456, 464, 930, 935, 956, 957, 958, 959, 966, 968
Aphelinus, 442, 968; *A. mali* (Haldeman), 209, 456
 Aphelocheirinae, 488
Aphelocheirus, 41, 74, 486; *A. australicus* Usinger, 486, 488
 Aphelopinae, 970, 971
Aphelopus, 971
Aphelotoma, 990, 992

- Aphididae, 53, 55, 60, 81, 90, 93, 104, 106, 107, 108, 170, 178, 231, 337, 429, 431, 432, 435-43 *passim*, **453-6**, 528, 530, 539, 541, 658, 749, 760, 763, 868, 940, 945, 948, 956, 965, 968, 987
- Aphidiinae, 441, 442, 455-6, 940, 943, 946, 947, **948**, 956
- Aphidina, 169
- Aphidinae, 453, 454, 455, **456**
- Aphidius, 948
- Aphidoidea, 40, 82, 101, 170, 429-48 *passim*, **452-7**, 560, 563
- aphids, *see* Aphididae
- Aphidulum, 170
- Aphilorheithrus, 814; *A. stepheni* Mosely, 800, 808
- Aphis*: *A. acaenovinae* Eastop, 432, 456; *A. chloris* Koch, 456; *A. craccivora* Koch, 455; *A. nerii* Boyer de Fonscolombe, 454; *A. platyllobii* Carver and White, 456; *A. spiraeicola* Patch, 454, 455
- Aphodiinae, 628, **629**
- Aphodius, 629; *A. tasmaniae* Hope, 562, 629
- Aphrophoridae, 442, 443, 467, **468**, 469
- Aphroteniinae, **746**
- Aphyllinae, 505, **508**
- Aphyllorhales (FUNGI), 654
- Aphyllum, 508
- Aphytis, 968; *A. melinus* DeBach, 464
- Apicotermitinae, 345
- Apidae, 175, 927, 931, 994, 997, **1000**
- Apina callisto* (Angas), 914
- Apinae, **1000**
- Apiocera*, 758; *A. silica* Westwood, 719, 757; *A. maritima* G. H. Hardy, 758
- Apioceridae, 719, 733, 734, 752, 756, 757, **758**
- Apiomorpha*, 81, 222, 439, 442, 461, 962, 964, 965, 968; *A. frenchi* Froggatt, 460; *A. munita* Schrader, 463; *A. pedunculata* (Fuller), 82
- Apion*, 680; *A. convexipenne* Lea, 681
- Apionidae, *see* Brentidae
- Apioninae, 579, 678, **680**, 681
- Apis*, 55, 994, 1000; *A. mellifera* Linnaeus, 27, 55, 91, 97, 227-8, 231, 247, 249, 304, 441, 479, 780, 925, 927, 929, 980, 1000
- Apistomyia*, 742; *A. tonnoiri* Tillyard, 748
- Apistomyiini, 742
- Apleurotropis*, 969
- Aplin, T. E. H., 81
- Aploschema*, 891; *A. discata* (Warren), 893
- Aplysia* (MOLLUSCA), 250
- Apochrysinidae, **539**
- Apocordulia macrops* Watson, 310
- Apocrita, 17, 30, 97, 916-33 *passim*, **935-1000**
- Apocrypta, 963
- Apocryptophagus*, 963
- Apocynaceae (BOT.), 897, 910
- apodemes, 5, 51
- Apoditrysia, 833, 870
- Apodryininae, 973
- Apoglypha*, 952
- Apoidea, 25, 29, 85, 98, 103, 216, 224, 227-8, 229, 251, 560, 664, 668, 690, 691, 695, 700, 763, 782, 877, 904, 916-31 *passim*, 936, 937, 938, 942, 945, 961, 973, 977, 982, 989, **993-1000**
- apolysis, 36, 65
- apomorphy, 116
- Apophua*, 945
- Aphyllum* (BOT.), 449, 897, 962
- apophyses, 5, 35
- Apoprongonidae, *see* Sematuridae
- Aporhina*, 680
- aposematism, *see* coloration
- Aposthonia*, 406, 407, 408, 409; *A. approximans* (Davis), 407; *A. glauerti* (Tillyard), 408; *A. gurneyi* (Froggatt), 406, 409
- Apotomimi, 612
- Apotropina*, 780
- Apovostox*, 367
- Apozygidae, 930, 943
- Appels, R., 244
- appendix dorsalis, 19
- apple, pests of, 205, 209, 231, 455, 472, 493, 513, 851, 863, 873, 874, 962; *see also* orchard pests
- Aprolida*, 675, 676, 677; *A. balyi* Pascoe, 677
- Aprostocetus*, 969
- Apserterotermes*, 346; *A. iridipennis* (Gay), 334
- Apsilochorema*, 810; *A. gisbum* (Mosely), 791, 802
- Apsilochoreminae, **800**, 802, 810
- Apterobittacus*, 698
- Apterogryllus*, 386
- Apteropanorpa*, 31, 696, 697, 698; *A. tasmanica* Carpenter, 69, 703
- Apteropanorpidae, 69, 696-701 *passim*, **703**
- Apterotheca besti* (Blackburn), Pl. 5
- aptery, 12, 60, 69, 75, 76, 93, 97, 102, 252, 313, 318, 322, 327, 329, 349, 353, 355, 357, 361, 364, 366, 367, 371, 380-8 *passim*, 394-413 *passim*, 417, 421, 440, 453-63 *passim*, 480, 481, 483, 496, 497, 503, 513, 515, 550, 651, 663, 685, 697, 698, 703, 705, 717, 744, 749, 755, 763, 771, 772, 786, 848, 921, 927, 934, 940, 945, 950, 954, 963, 965, 967, 970, 971, 972, 973, 977, 978, 980, 982
- Apterygota, 5, 10, 17, 18, 19, 20, 21, 22, 66, 153, 207, 275
- Aptinotrips rufus* (Haliday), 515
- Apus pacificus* (AVES), 88
- Aquarius*, 485
- aquatic insects, 11, 37, 39, 41, 60, 72-6, 90-1, 131-3, 138-44 *passim*, 156, 159-62, 182, 195, 256-7, 263, 279-319, 392-3, 431, 434, 435, 440, 485, 486-8, 516-20 *passim*, 536, 537, 545, 558, 559-60, 562, 608, 609, 614-16, 618, 619, 624, 632, 634-5, 636, 676-7, 682, 700, 702, 731, 732, 740, 742, 743, 744, 746, 747, 753, 755, 760, 768, 777, 779, 780, 787-816, 886, 887, 925, 969-70; lentic, 73, 616, 624, 793, 803, 809; lotic, 73, 616, 634, 793, 803, 809; semiaquatic, 309, 323, 376, 391, 482-5, 487-8, 528, 740, 935, 954; water surfaces, 72-3, 75-6, 256-7, 273, 370, 376, 431, 482-5, 545, 554, 616, 618, 623, 743, 760; *see also* marine insects
- aquatic plants, 73, 86, 235, 246, 303, 306, 376, 392, 455, 482, 483, 487, 488, 614, 616, 618, 676, 680, 682, 730, 731, 743, 744, 777, 793, 794, 886, 887, 935
- Aquila taetalis* (Walker), 911
- Arachnida (arachnids), 32, 76, 143, 441, 956; *see also* spiders
- Arachnocampa*, 91, 92, 751; *A. tasmaniensis* Ferguson, 72
- Aradelloides*, 496
- Aradella*, 496
- Aradidae, 171, 429, 430, 431, 435, 440, 442, 443, 447, **497**, 498, 954
- Aradinae, **497**
- Aradoidea, 439, 443, 445, 446, 447, **496-8**
- Aradophagini, 954
- Aradus*, 497
- Araecerus*: *A. fasciculatus* Degeer, 679; *A. palmaris* (Pascoe), 679
- Araeopidae, *see* Delphacidae
- Araneae, *see* spiders
- Araneidae (ARANEAE), 90, 182, 780
- Araucaria* (BOT.), 194, 442, 456, 585, 587, 644, 649, 676, 679; *A. cunninghamii*, 342, 673, 682, 956; *A. heterophylla*, 673
- Araucariaceae (BOT.), 194, 679
- Araucariana*, 632
- Araujo, R. L., 330
- Arbela*, 491; *A. telomi* (Distant), 490
- arboricoles, 611
- arboviruses, 230, 732, 744, 746, 747
- Archaeochlus*, 744, 746
- Archaeodemus*, 502
- Archaeoglenes*, 667
- Archaeognatha, 6, 8, 18, 19, 20, 21, 26, 71, 76, 77, 98, 125-9 *passim*, **130**, 142-53 *passim*, **154-5**, 272-4, 275, 276, 277, 924
- Archaeolepis*, 174
- Archaeophya*, 310
- Archaeophylax*, 795; *A. ochreus* Mosely, 788, 799, 804, 812
- Archankothrips*, 169
- Archecoleoptera, 176-7
- archedictyon, 15, 149, 371
- Archegocimicidae, 171
- Archeocrypticidae, 565, 575, 604, **660**, 661
- Archeocryptica*, 660
- Archeosmylidae*, 175
- Archer, M., 191
- Archescytina permiana* Tillyard, 169
- Archescytinidae, 170, 429
- Archibasis mimites* (Tillyard), 306
- Archichauliodes*, 517, 518, 519, 520; *A. (Apo)chauliodes*, 519, 520; *A. (Apo)chauliodes cervulus* Theischinger, 520; *A. (Archichauliodes) anagaurus* Riek, 519, 520
- A. deceptor* Kimmins, 520; *A. diversus* Walker, 519, 520; *A. guttiferus* (Walker), 20, 520; *A. polypastus* Riek, 520; *A. uncinatus* Theischinger, 520
- Archidermaptera, 167, 364
- Archie, J. W., 110, 115
- Archiearinae, **889**
- Archimantis*, 356; *A. latistylus* (Serville), 348, 349, 351, 356; *A. sobrina* Saussure, 356
- Archimylacridae, 165, 166
- Archipetalia*, 304; *A. auriculata* Tillyard, 309
- Archiphora patagonica* (Schmitz), 762; *A. robusta* (Meunier), 762
- Archipini, 873
- Archiprobnisidae, 163
- Archipsocidae, 415, 416, 418, **419**
- Archipsocopsis*, 414, 415
- Archipsyllidae, 168
- Archisotoma*, 261
- Archodonata, *see* Permothemistida
- Archontophoenix alexandrae* (BOT.), 865
- Archostemata, 28, 176, 177, 178, 546-58 *passim*, 564, 565, **607-8**, 609, 617
- Arcioneura*, 151
- arctic regions, 68
- Arctiidae, 228, 819, 822, 826, 830, 831, 832, 877, 905, 906, 907, **908-10**, 912, 913, Pl. 7, Pl. 8
- Arctiinae, **909-10**
- Arctcephalus* (MAMMALIA), 428
- Arctoperlaria, 312, 313, 314
- Arctopsychidae, 795
- arculus, 297, 790
- Ardiosteres*, 848, 849
- Areaceae (BOT.), 464, 897
- areola postica, of Psocoptera, 413
- areole, of Lepidoptera, 820
- areolet, of Hymenoptera, 921
- Argent, C., 229
- Argentine ant, *see* *Iridomyrmex humilis*
- Argentine stem weevil, *see* *Listronotus bonariensis*
- Argidae, 926, 929, 930, 932, 933, **934**
- Argina aestrea* (Drury), 909
- Arginae, **934**
- arginine, 58
- Argioacnemis rubescens* Selys, 306
- Argiolestes*, 307; *A. pusillus* Tillyard, 307
- Argiolestinae, **307**
- Argogorytes*, 991
- Argusia argentea* (BOT.), 909
- Argyresthia*, 858; *A. notoleuca* (Turner), 856, 857
- Argyresthiidae, 832, 855, **856-7**, 858
- Arhopalus*, 673; *A. syriacus* (Reitter), 673
- arid habitats, 59, 83, 256, 257, 261, 262, 263, 264, 276, 323, 328, 339, 347, 381, 384, 386, 389, 393, 401, 404, 407, 409, 424, 442, 465, 467, 472, 478, 479, 499, 507, 528-9, 540, 541, 542, 562, 613, 614, 627,

- 630, 651, 665, 667, 671, 699-700, 745, 758, 782, 830, 831, 841, 875, 889, 914, 930, 943-4, 945, 949, 970, 980, 985, 986, 987; desiccation, 34, 74, 77, 257, 276, 288, 291-2, 310, 381, 407, 457, 467, 829, 830
Aridius: *A. australicus* (Belon), 660; *A. bifasciatus* (Reitter), 660; *A. nodifer* (Westwood), 660
 arista, 719
Aristeis, 869; *A. hepialella* (Walker), 860
Aristolochia (BOT.), 896
 Aristotle, 114
 Arita, Y., 857, 877
Arixenia esau Jordan, 362, 365
 Arixeniidae, 93, 94, 364, 365
 Arixeniina, 134, 361, 362, 364, 365
Armogomphus, 304; *A. armiger* (Tillyard), 309
 Armaniidae, 175
 armoured scales, *see* Diaspididae
 Armstrong, J. A., 926
 Armstrong, J. W. T., 624, 642, 671
 army ants, 929, 984
 armyworms, *see* Hadeninae
 Arnett, R. H., 111, 124, 684
 Arnold, J. W., 15
 Arnold, M. L., 243
 Arnoldi, L. V., 178, 544, 609, 617
 arolium, 11
Arotrophora, 873; *A. arcuatalis* (Walker), 871
Arpactophilus, 940, 991
 Arrhenophanidae, 832
 arrhenotoky, 440, 452, 513, 927
Arrhopalites, 256
 Artematopidae, 117, 564, 565, 636
 Artematopidae, 632
 Artheneinae, 501, 502, **503**
Arthrocnodax, 749
 Arthropleona, 253, 258, **260-3**
 Arthropleuridae, 143
 Arthropoda (arthropods), 128; key to terrestrial, 24-32
Arthropterus, 561, 610, 613
Arthula, 945
 articular sclerites, 13, 148
 articulation, 35, 36
 Aru I., 932
Arunta, 467
 Arvy, L., 284
Asaphes vulgaris Walker, 965
 Asaphinae, **965**
Asaphoides, 965
 Ascalaphidae, 176, 525-32 *passim*, 540, **541-2**
Ascelis, 461
Ascetoderes, 656; *A. aequinus* (Pascocoe), 655
 Aschiza, 731, 733, 734, 735, 751, **761-3**
 Asclepiadaceae (BOT.), 231, 897
Asclepias (BOT.), 897
 Asclerini, 668
 Ascodipterinae, **786**
Ascogaster, 949
Ascoidea (FUNGI), 560, 644, 683
 ascoids, of Lepidoptera, 834
 Ascomycetes (FUNGI), 641, 644, 651, 658, 660, 664, 669, 679, 683, 987
 Aseminae, **673**
 Ashe, J. S., 559, 623
 Ashlock, P. D., 118, 435, 438, 479
 Asilidae, 91, 100, 377, 700, 727-34 *passim*, 752, 756, **757-8**, Pl. 5, Pl. 6
 Asilinae, **758**
 Asiloidea, 730, 734, 753, **756-9**
 Asioleidae, 176
 Asiopsocidae, 416
 Asiopsocoidea, 416
 Asiracinae, **476**
 Askew, R. R., 690, 916
Asmicridea, 790; *A. edwardsi* (McLachlan), 788, 791, 799
Asobara persimilis Papp, 948
Asopus, 439, 441
Asota, 909, 910, 912; *A. iodamia* (Herrich-Schäffer), 910, 911
Asphalus, 665
 Aspiceratinae, 956
Aspidiphorus, 566, 649; *A. humeralis* Blackburn, 648
Aspidomorpha, 677
Aspidoneura flexa Carpenter, 167
Aspilota, 948
Aspisocoris termitophilus Kormilev, 497
 Aspöck, H., 521, 525, 527, 538
 Aspöck, U., 521, 525, 538
 assassin bugs, *see* Reduviidae
 Assem, J. van den, 927
Astartea (BOT.), 456
 Astatinae, 990
Astatochroa fuscimargo (Warren), 892
Asteia, 777
 Asteiidae, 734, 766, 776, **777**
 Asteroidea, 734, **777**
 Asteraceae (BOT.), 194, 449, 455, 515, 771, 877, 898
Asterivora lampadias Meyrick, 871
 Asterolecaniidae, 443, 458, **461**, 462
Asterolecanium, 461; *A. hakeae* Fuller, 462
 Asthenopodinae, 285
Asthenopus, 284
Astichus, 969
Astiosoma, 777
Astraeus, 632
Astrotricha (BOT.), 885
 Asymphyloptera, 760
Asynonychus cervinus (Boheman), 562, 682
Atactophlebia, 163
Ataenius, 629
Atalasis, 677
Atalaya (BOT.), 864
Atalomieria, 293
Atalophlebia, 280, 281, 282, 284, 287, 290-2; *A. australasica* (Pictet), 283, 291-2; *A. australis* (Walker), 292; *A. yugana* Harker, 282, 292
 Atalophlebiinae, **290-3**
Atalophlebioides, 282, 292
Atarba, 742; *A. australasiae* (Skuse), 741
Ataxigamia, 329; *A. tatei* Tepper, 329
 Atelocerata, 127
 Atelurinae, 276, 277, **278**, 339
Atelurodes, 277, 278; *A. similatus* (Silvestri), 278
 Aterpinae, **682**, Pl. 5
Athemistus, 673
 Athericidae, 734, 752, **753**
Atherigona, 780
Atherimorpha, 752, 753, 755
Athertonium, 650
 Athetini, 623
 Athoinae, **637**
 Atkins, A., 893
 Atkins, D. M., 547
Atomaria, 554, 555, 653
 Atomariinae, 601, 605
Atopatelura, 276, 277, 278; *A. hartmeyeri* Silvestri, 276; *A. michaelseni* Silvestri, 277
Atractocerus, 583, 644, 645; *A. crassicornis* Clark, 645
Atractomorpha, 389; *A. similis* Bolivar, 389
 Atractomorphiini, 389
Atrichobrunmettia alternata Satchell, 743
Atrichopleura, 760; *A. caesia* Collin, 760
Atrichopogon, 738, 746
Atriplectides dubius Mosely, 800, 808, 814
 Atriplectididae, 795, 796, 797, 800, 808, **813**, 814
 Atropetae, 416
 Attacidae, *see* Saturniidae
Attacus, 903; *A. wardi* Rothschild, 903
 Attageninae, **642**
Attageninae, 642
 Attelabidae, 178, 565, 579, 587, 678, **680**, 681
 Attelabini, **680**
 Attelabini, 680
Atteva, 855; *A. niphocosma* Turner, 855-6, Pl. 7
 Atteviniae, **855-6**
 attribute, 113
 Atychidae, *see* Brachodidae
Atyphella, *see* Luciola
Auchenophorus, 991
 Auchenorrhyncha, 15, 19, 50, 57, 61, 81, 144, 167, 169, 170-1, 176, 178, 179, 429-45 *passim*, 448, **464-79**, 481, 685, 690, 693, 694, 695, 763, 970, 971, 991, 993, Pl. 3
 auditory (tympanal) organs, 349, 370, 435, 465, 818-19, 821, 823, 831, 870, 872, 886, 887, 889, 891-2, 905, 934
 Audley-Charles, M. G., 190, 191, 193, 194
Aufidus trifasciatus Stål, 468, 469
 Augochlorini, 998
 Aulacidae, 175, 930, **941-2**
 Aulacigastridae, 734, 767, 776, **777**
Aulacochilus, 563
Aulacocycylus, 626, 627; *A. collaris* Blackburn, 556
Aulacofoenus, 942, 943
Aulacophora, 79, 562; *A. abdominalis* (Fabricius), 678; *A. hilaris* (Boisduval), 678
Aulacorthum solani (Kaltenbach), 454, 455
Aulacosternum nigrorubrum Dallas, 504, Pl. 3
Aulacus, 941, 942
 Auletini, 680
Auletobius, 579, 680
Auloicerya, 459
Aulonogyryus, 616
Aulonosoma, 651; *A. tenebrioides*, 651
Aulonothroscus, 637, 638
Auplopus, 975, Pl. 6
 auricles, of Odonata, 298
Austelasmus, 969
Austeucharis, 966
 Austin, A. D., 954, 975
Austracris, 377
Australelis, 979
Austrelabia, 260
Australembia, 409; *A. incompta* Ross, 406, 408, 409; *A. rileyi* (Davis), 409
 Australembiidae, 405, 406, 408, **409**
Australentulus, 268; *A. tillyardi* (Womersley), 266, 268
 Australian Biological Resources Study (ABRS), 110, 112, 124
 Australian Conservation Foundation, 211
 Australian Entomological Society, 217, 220
 Australian Hookworm Campaign, 208, 218
 Australian Institute of Tropical Medicine (AITM), 208, 218
 Australian Museum, 203, 204, 205, 206, 207, 215
 Australian National Insect Collection (ANIC), 210
 Australian Plague Locust Commission, 108
 Australian Region, 180, 182
Australiococcus grevilleae (Fuller), 461
Australimyza, 775, 777
 Australimyziinae, 766, **777**
Australiorylon, 581, 656; *A. longipilis* (Carter and Zeck), 566
Australiphthiria, 759
Australitermes, 347; *A. dilucidus* (Hill), 347; *A. insignitus* (Hill), 347; *A. perlevis* (Hill), 347
Australodemus, 502
 Australoglypta, 945
Australomochlonyx, 743
Australonousia, *see* *Nousia*
Australonura, 260
Australopsylla, 448, 449
Australoptochus, 561; *A. phoreticus* Kistner, 339
Australosepsis, 432
Australosepsis niveipennis (Becker), 772
Australostolus monteithi Stys, 481
Australostoma, 380; *A. opacum* (Brunner), 380, 381
Australosymmerus, 751
Australothrips bicolor Bagnall, 515
Australotomurus, 261; *A. johanni* Mari Mut and Greenslade, 262

- Australozethus*, 979, Pl. 6
Australurus, 160
Australymexylon, 644
Australysmus, 537
Austrazenia tusa (Swinhoe), 914
Austremerella, see *Ephemerellina*
Austrheithrus, 800, 815; *A. glymma* Neboiss, 808
Austroaeschna, 309; *A. parvistigma* Selys, 295, 296, 299; *A. pulchra* Tillyard, 298
Austroagallia torrida Evans, 81, 471
Austroagalloides, 471
Austroagalloidinae, 471
Austroagrion, 307
Austroargiolestes, 307; *A. alpinus* (Tillyard), 302; *A. icteromelas* (Selys), 296, 300
Austroasca, 472
Austrobittacus, 702
Austroblandex, 366; *A. bituberculatus* Brindle, 366
Austrocampa, see *Metriocampa*
Austrocapus, 493
Austrocercia, 316, 318; *A. tasmanica* (Tillyard), 313
Austrocercella, 317, 318; *A. hynesi* Illies, 313
Austrocercoides, 318
Austrocladius, 746
Austroclemina, 748
Austrocnemis, 306; *A. splendida* (Martin), Pl. 1
Austrocodrus, 952
Austroconops, 746
Austrocoradula refracta Tillyard, 310
Austrocroce, 540, 542
Austrocurupira, 742
Austrocynipinae, 194, 955, 956
Austrocynips, 954; *A. mirabilis* Riek, 955, 956
Austrocyrta, 932; *A. australiensis* Riek, 933
Austrogomphus, 161, 309; *A. guerini* (Rambur), 301, 309, Pl. 1
Austrogorytes, 991
Austrogymnocnemis, 541
Austrogynacantha heterogena Tillyard, 309
Austroheptura, 315
Austroicetes, 377; *A. cruciata* (Saussure), 70, 377; *A. interioris* White and Key, 390; *A. nullarborensis* (Key), 377
Austroidelia, 163
Austrointhus, 561
Austrolema, see *Zeugophora* (*Pedriilla*)
Austroleptis, 752, 753; *A. rhyphoides* Paramonov, 753
Austrolestes, 307; *A. analis* (Rambur), 302; *A. annulosus* (Selys), 300; *A. cingulatus* (Burmeister), 307, Pl. 1
Austrolfersia, 785
Austrolimnius, 634; *A. waterhousei* Hinton, 633, 639
Austromerope, 698, 699, 702; *A. poultoni* Killington, 703
Austromirini, 493
Austromiris, 493
Austromochlonyx, 115, 116
Austromordella, 663
Austronausibius, 566, 651
Austronemadus, 621
Austronepa, 486
Austroneurorthus, 529, 533, 537
Austronia, 952; *A. rubrithorax* Riek, 951
Austromiidae, 930, 949, 951, 952
Austropamphantus woodwardi Slater, 503
Austropentura, 315
Austroperla, 315
Austroperlidae, 19, 131, 182, 313, 314, 315-17
Austroretalia, 309; *A. patricia* (Tillyard), 309
Austrophlebia, 309
Austrophlebioides, 284, 285, 291, 292
Austropolyphaga, 328
Austropria, 950
Austropsyche victoriana Banks, 802
Austropsylla, 711
Austrorgerius collinae Woodward, 477, 478
Austrosclara, 749
Austroserphus, 917, 951, 952
Austrosialis, 519, 520
Austrosimulium, 746; *A. bancrofti* (Taylor), 719, 746; *A. pestilens* Mackerras and Mackerras, 74, 746
Austrosirachtha mimetes Watson, 339, 561, 623
Austrosticta, 307; *A. soror* Sjöstedt, 300
Austrostylopyga, see *Celatoblatta*
Austrosystasinae, 965
Austrotachardia, 464; *A. angulata* (Froggatt), 460
Austroterobia, 965
Austroterobiinae, 965
Austrothaumalea, 738, 745, 747
Austrothemis nigrescens (Martin), 310
Austrotichus, 508
Austrotoma, 990
Austrovelia, 442; *A. queenslandica* Malipatil and Monteith, 482
Austroxylabis, 950
autapomorphy, 116, 117
autochthonous element, 181
autogenous Diptera, 731
Automolus, 630
Autostichinae, 860, 863
autotomy, 92; of legs, 272, 275, 279, 376, 398, 399; of wings, 93, 103, 334, 411, 433-4, 482, 785; see also de-alation
Avicennia marina (BOT.), 883
Avise, J. C., 244
avocado, pests of, 873
Ax, P., 117
axalare (axalaria), 13, 148
Axelsonia, 261
Axiidae, 832
axillae, 918
axillary: area, 12; cord, 14; muscles, 13; plate, 13; sclerites, 13
axilula pilaris, of Neuroptera, 527
Axinota pictiventris van der Wulp, 778
Axioidea, 832, 833
Axionicus insignis Pascoe, 683
axon, 42
Axymyiidae, 734
azalea, pests of, 494, 853
Azaleodes, 843, 844; *A. micronipha* Turner, 845
Baccetti, B., 128, 130, 133, 135, 266, 357, 358, 360, 362, 371, 380, 399
Bacillus (INSECTA), 396
Bacillus thuringiensis var. *israelensis* (BACTERIA), 732
back-swimmers, see Notonectidae; Pleidace
Baclozygum depressum Bergroth, 494
Bacot, H. W., 708
bacteria: anaerobic, 336; as food, 257, 763, 780; pathogenic, 81, 98, 257, 325, 408, 562, 732, 780, 831, 929; symbiotic, 57, 58, 59, 60, 336, 439; root nodules, 770
Bactra, 873
Bactrini, 873
Baculentulus pseudonitidus (Tuxen and Imadaté), 268
baculi, 553
Badamia exclamationis (Fabricius), 829
Badisis ambulans D. McAlpine, 771
Badonnel, A., 412, 414, 416
Baeckea (BOT.), 994
Baehr, M., 488, 546, 609
Baehni, 954
Baenothrips, 515
Baeocera, 623
Baeopterus robustus Lamb, 69
Baetidae, 64, 279, 280, 281, 285, 286, 287-8, 289, 290
Baetinae, 179
Baetis, 282, 287, 288, 289; *B. soror* Ulmer, 283, 287
Baetisca, 281
Baetiscidae, 285
Baetoidea, 285, 287-9
Baeus, 953, 954
bag-shelter moth, see *Ochrogaster*
Bagnall, R. S., 101
Bagnalliella yuccae (Hinds), 513
Báguena Corella, L., 671
Bailey, P., 513
Bailey, P. C. E., 292
Bailey, V. A., 245
Bailey, W. J., 251, 376, 384
Bain, J., 340
Baissopteridae, 176
Baissorhynchus, 680
Baker, G. L., 377, 378
Baker, J. R., 237
Baker, R. R., 104
Bakeriola, 492
Balamara albovittata (Chopard), 385
Balanophorus, 647; *B. mastersi* Macleay, 647
Balantiucha decorata (Warren), 893
Balclutha, 472
Balderson, J., 348, 353
Baleopterygidae, 163
Balfour-Browne, F., 615, 616
Balfour-Browne, J., 616
Baliomorpha banksi (Mosely), 799, 802; *B. pulchripenne* (Tillyard), 802, 811
Ball, G. E., 611
Ball, I. R., 119, 187, 191
Ballantyne, L. A., 640
Balta, 323, 328
Balzer, R. S., 423
Balzer, L., 247
banana, pests of, 455, 513, 515, 562, 683, 771, 850, 914
banana stalk fly, see *Telostylinus angusticollis*
Banchinae, 944, 945
Bancroft, J., 217
Bancroft, M. J., see Mackerras, M. J.
Bancroft, T. L., 199, 212, 217-18
Bandidus, 541
Banks, H. J., 114, 458
Banks, Joseph, 199, 200-1, 202, 203, 221, 222, 225-6, 236
Banksia (BOT.), 194, 449, 461, 494, 673, 844, 862, 863, 873, 881, 903, 904, 906, 962; *B. integrifolia*, 859, 863; *B. serrata*, 863
Baranovisca, 782
Barbarochthonidae, 795
bardee, see *Bardistus cibarius*
Bardistus cibarius Newman, 223, 673
Barea, 821, 860; *B. consignatella* (Walker), 860
Bargylia, 496
Baridinae, 681, 683
Baris, 563
bark: as food or habitat, 256, 261, 273, 276, 313, 323, 325, 329, 336, 343, 347, 363, 367, 382, 407, 409, 410, 414, 417, 418, 419, 420, 457, 478, 497, 508, 513, 523, 530, 536, 537, 538, 539, 614, 618, 623, 636, 640, 644, 645, 649, 650, 651, 653, 656, 658, 664, 665, 668, 669, 671, 672, 682, 758, 760, 830, 840, 862, 863, 870, 887, 935, 973, 975; mining, 830, 852, 860, 876, 880, 881, 948
bark beetles, see Scolytinae
bark bugs, see Aradidae
Barker, S., 632
Barker, S. C., 423
Barker, W. R., 193, 341
Barlet, J., 130, 154
barley, pests of, 108, 455, 563
Barlow, B. A., 181, 193
Barnard, P. C., 535, 789
Barnes, H. F., 731
Barnes, J. K., 768
Baroni Urbani, C., 175
Baroniinae, 895
Barrett, R. A., 345
Barth, R., 405
Barton, N. H., 243
Barton Browne, L., 43, 240

- Baryconini, 954
Baryconus, 954
 basalar sclerites, 10
 basallare (basalaria), 13
Basalys, 950
 Basden, R., 448
 Bashford, R., 344
 basicosta, *see* humeral plate
 Basidiomycetes (FUNGI), 623, 625, 653, 654, 662, 663, 665
Basilina falcozi (Musgrave), 786
 basiphallus, 727
 basisternum, 10
 basistyles, *see* gonocoxites
 basistylus, 265
 basitarsus, 11, 145
 basitibial plate, 921
 basivenale (basivenalia), 13, 15, 148
 Bassian zone, 196
Bassus, 949
 Bastiani, M. J., 248
Batavia (ship), 225
 Bateman, M. A., 241
 Bates, H. W., 100, 237, 238
 Bateson, W., 238, 247-8, 362
Bathrotoma constrictana Meyrick, 873
Bathurst (ship), 202
 Bathurst burr seed fly, *see* *Euaerista bullans*
Bathylus albicinctus (Erichson), 468
Bathypogon, 758
Bathytricha, 914
Batocera, 563; *B. boisduwali* (Hope), 673; *B. wallacei* Thomson, 673
Batozonellus, 975
 Batra, S. W. T., 995
Batrachedra, 829, 831, 863, 864; *B. arenosella* (Walker), 90, 864; *B. microtoma* Meyrick, 861
 Batrachedridae, 90, 832, 859, 861, 863, 864
Batrachomyia, 96, 779, 780
Batracomorphus, 471; *B. angustatus* (Osborn), 471
 Batrisinae, 624
Batrisodes oculatus Aubé, 624
 bats (Chiroptera: MAMMALIA): as hosts, 439, 490, 705, 709, 716, 785-6; as predators, 44, 88, 314, 364, 519, 530, 732, 794, 830, 909; guano of, 71, 72, 771, 773
 Baumert, D., 689
 Baverstock, P. R., 114
 Bayly, I. A. E., 793
 Bayly, W., 222
 Bdellidae (ACARINA), 257
Bdellodes lapidaria (ACARINA), 257
 Beadle, G. W., 248
 Beaglehole, J. C., 200, 222
 Beament, J. W. L., 276
 Beamys (MAMMALIA), 364
 beans, pests of, 233, 504, 508, 677, 780, 854, 899, 912
 Beardsley, J. W., 170, 458, 461, 464
 Beaton, C. D., 114, 243
 Beattie, A. J., 989
 Beattie, W. M., 868
 Beatty, J., 119
Beckerias, 763
 bed bug, *see* *Cimex lectularius*
Bedellia, 858; *B. somnulentella* (Zeller), 858
 Bedelliinae, 858
 Bedford, G. O., 396, 398, 400
 Bedo, D. G., 112, 336, 728, 729, 747
 bec flies, *see* Bombyliinae
 bee louse, *see* *Braula coeca*
 bee mimics, 763, 830, 877, 904, 961
 beekeeping, *see* honey industry
 bees, *see* Apoidea
 Beesoniidae, 443
 beetles, *see* Coleoptera
 behaviour, studies in, 249-50; *see also* combat; courtship; territoriality
 Behningidae, 279, 280, 282, 285
 Beier, M., 320, 348, 353, 362, 369, 382, 394, 396, 517, 624
 Bekker-Migdisova, E. E., 170
Belgica antarctica Jacobs, 68, 69
 Belidae, 557, 563, 565, 578, 579, 587, 640, 678, 679-80, Pl. 6
 Belinae, 680
 Belkaceme, T., 609
 Bell, J. R., 609, 611
 Bell, R. T., 609, 611
 Bell, W. J., 320, 323
 Bellamy, C. L., 632
 Bellas, T. E., 229
 Bellés, X., 644
 Belmontiidae, 172, 174
 Belopini, 667
 Belostomatidae, 73, 91, 171, 434, 441, 442, 443, 446, 486, 487, 508
 Belostomatinae, 487
 Beltian bodies, 84
Belus, 680; *B. suturalis* Boisduval, 679
Belyta, 950
 Belytinae, 950, 951
Bembecinus, 695, 991-3
 Bembicini, 990, 991, 993
 Bembidiini, 612, 614
Bembix, 530, 690, 691, 695, 920, 992, 993
Bemisia: *B. giffardi* (Kotinsky), 452; *B. tabaci* (Gennadius), 452
 Ben-Avraham, Z., 197
 Ben-Dov, Y., 464
 Bengtsson, B. Å., 870
 Bennetts, H. W., 81
 Benson, R. B., 932, 934
 Benzer, S., 248, 249
 Beraeidae, 795
 Berberentomidae, 268
Berberentulus capensis (Womersley), 268
 Berg, R. Y., 83
 Bergdahl, J. C., 85
 Beridinae, 755
Berlesaspis spinifera (Maskell), 463
 Berlin, B., 114
Bermiella acuta (Stål), 72, 390, 391
Bermius brachycerus Stål, 370
 Bernard, E. C., 266, 267
 Bernays, E. A., 80, 81, 372
 Berosinae, 558, 587, 617, 618
Berosus, 617; *B. australiae* Mulsant, 617
 Berothidae, 525-33 *passim*, 536, 537, 538
 Berothinae, 538
 Bertrand, H. P. I., 559
 Berytidae, 438, 443, 498, 499
 Bcshear, R. J., 460
 Besuchet, C., 624, 656, 664
 β-pinene, *see* pinene
 Bethyliidae, 175, 927, 931, 936, 970, 971, 972, 973, 987
 Bethylinae, 973
 Bethylynomyidae, 175
 Betrem, J. G., 979
 Betsch, J.-M., 259
 Betts, C. R., 170, 171, 434, 444, 479
Betylobracon waterhousei Tobias, 949
 Betylobraconinae, 947, 949
 Beutel, R. G., 609, 616
 Beverley, S. M., 114
 Beyer, E. M., 763
Beyeria (BOT.), 447; *B. leschenaultii*, 499; *B. viscosa*, 83
 Bezzi, M., 717
 Bhaskaran, G., 732
 Biaphelopinae, 971, 973
Bibikovana, 713, 714; *B. rainbowi* Rothschild, 714; *B. tiptoni* (Traub), 714
Bibio, 748; *B. imitator* Walker, 748
 Bibionidae, 39, 174, 721, 723, 730, 733-40 *passim*, 748-9, 754, Pl. 6
 Bibionomorpha, 174, 178, 728, 734, 735, 742, 747-51
Bibulmena, 293
 bicarbonate, 61
 Bickel, D. J., 761
Bifiditermes improbus (Hagen), 336, 344
 Bilinski, S., 265
 Bils, W., 553, 609
 binomen, 121
 Biontiellidae, 164
 BIOCLIM, 183
 bioclimatic zones, 196
 biocontrol (biological control), 91, 112-13, 207-11 *passim*, 218, 231-5, 245-7, 257, 304, 353, 442, 452, 455-6, 458, 459, 461, 464, 475, 489, 493, 509, 530, 539, 563, 627, 658, 677, 678, 682, 690, 700-1, 732-3, 749, 771, 775, 778, 783, 831, 873, 887, 914, 929, 938, 944, 948, 949, 954, 956, 965, 968, 969, 970, 973, 980
 biogeographic regions, 180, 182; in Australia, 196
 biogeography, 180-97; dispersal, 184-7; ecological, 182-4; panbiogeography, 187; vicariance, 187-90
 biological species concept, 112
 biotype, 113
 Biphyllidae, 547, 552, 565, 576, 581, 586, 591, 599, 654-6, 659
Biphyllus, 656
Biprorulus bibax Breddin, 509
 birch, 454
 Birch, L. C., 70, 241, 246, 251
 Birch, M. C., 821
Birdantis, 476-8
 birds, 244, 647, 927; anting by, 425; as predators, 79, 88-9, 257, 284, 304, 314, 324, 339, 352, 363, 376, 377, 400, 415, 441, 519, 530, 562, 640, 732, 743, 794, 830, 831, 897, 898, 929, 986; as prey, 351; guano, 71, 72; nests, 68, 94, 95, 339, 340, 480, 489, 490, 619, 642, 644, 653, 708, 714, 757, 770, 773, 780, 850; parasites of, 93, 94, 96, 421-8 *passim*, 439, 490, 494, 653, 708, 714, 715, 716, 780, 785
 types of: albatross, 480; cassowary, 427; cockatoo, 89, 830, 841; coot, 427; cormorant, 424; cuckoo, 830; currawong, 89, 400, 530; duck, 423, 427; emu, 425, 427; flamingo, 423; fowls, 422, 424, 427; geese, 423; hawk, 427; heron, 423; ibis, 377; kestrel, 381; kingfisher, 339; magpie, 986; parakeet, 714; parrot, 339; pelican, 424; penguin, 68, 480, 714; petrel, 426, 714; pigeon, 96, 427; plover, 426; poultry, 89, 325, 425, 427, 716; rail, 427; seabirds, 68, 425, 619, 709, 714; stork, 423, 427; swan, 423; swifts, 88; waterbirds, 230, 257, 304; *see also* scientific names
 Birket-Smith, S. J. R., 130, 131, 136, 164
Biroella, 388
 Biroellinae, 387, 388
Bironella, 744
 Birt, L. M., 241
Birhana cleis (Felder and Rogenhofer), 880
 Bishop, A. C., 190
 Bishop, A. L., 123
 Bishop, J. E., 284, 287, 293
 Bissett, J., 749
 biting insects, 226-7, 229; biting lice, *see* Amblycera; Ischnocera; biting midges, *see* Ceratopogonidae
 Bitsch, J., 3, 8, 9, 130, 131
 Bittacidae, 64, 140, 172, 696-701 *passim*, 702-3
Bittacus, 699, 700, 701
 Blaberidae, 102, 320-6 *passim*, 328-9, 664
 Blaberoidea, 324, 325, 327-9
 Blacinae, 948
 black flies, *see* Simuliidae
 black house ants, *see* *Iridomyrmex glaber*; *Technomyrmex alpinus*
 blackberry, pests of, 934
 Blackburn, C. R. B., 215
 Blackburn, T., 199, 215
Blackburnium cavicolle (Macleay), 626
 Blackith, R. E., 364, 376, 387, 388
 Blackith, R. M., 364, 376, 388
 Blackman, R. L., 456
 Blackwelder, R. E., 110

- Blaesoxipha*, 782; *B. pachytyli* Skuse, 377
 Blagoveschenskii, D. I., 421
 Blair, K. G., 637, 662, 671
 Blandicinae, 365, **366**
Blaps polychresta Forskål, 667
 Blaptini, 667
 Blasticotomidae, 930, 931, 934
 Blastobasidae, 832, 859, 862, 865, 866, **867-8**
Blastobasis, 862, 865, 867; *B. sarcophaga*
 Meyrick, 866, 868; *B. tarda* Meyrick, 868
 Blastodacnidae, 832, 859
 blastoderm, 64
 blastokinesis, 64
 blastophagy, 963
Blastopsylla, 449
Blatta, 327; *B. orientalis* Linnaeus, 10, 324,
 325
 Blattaria, *see* Blattodea
Blattella, 323, 324; *B. germanica* (Linnaeus),
 21, 230, 323, 324, 325, 326
 Blattellidae, 71, 72, 321-7 *passim*, **328**, 664,
 941, 991, Pl. 2
 Blattellinae, 324
 Blattidae, 58, 63, 321, 322, 324, 325, **326-7**,
 664, 941, Pl. 2
 Blattinae, 325, **327**
 Blattinopsodea, 142, 168
 Blattodea, 6, 9, 10, 18, 19, 21, 24, 31, 47-60
passim, 66, 69, 71, 72, 77, 89, 92, 102,
 132, **133**, 142, 143, 165, **166**, 178, 179,
 205, 207, 216, 219, 226, 229, 230, 249,
320-9, 330, 333, 337, 342, 348, 357, 358,
 664, 685, 693, 694, 941, 963, 967, 968,
 979, 990, 991, Pl. 2
 Blattodeaphaginae, **694**
Blattodeaphagus beckmani Kathirithamby,
 694
Blattogryllus karatavicus Rasnitsyn, 357
 blatoid orders, 12, 16, 21, 22, 102, 143, 151,
 153, 156, 165-7, 171, 342, 362, 410
 Blattoidea, 325, **326-7**
Blattophila sphaerolima (NEMATODA), 324
 Blandusinae, **507**
Blechnoglossa nitens (Butler), 887
 Bledionotinae, 501, **503**
Bledius, 560, 562, 623
 Blephariceridae, 29, 73, 182, 195, 720, 729,
 731, 734-9 *passim*, **742**, 748
 Blephariceromorpha, 734, 735, **742**
Blepharotes, 757, 758
 Blissinae, 500, 501, **502**
 blood, *see* haemolymph
 blood-feeding insects, 35, 38, 53, 57, 59, 68,
 69, 93, 94, 95, 96, 211, 217-19, 226-7, 424,
 439, 442, 489-90, 494, 496, 499, 502, 705-
 16, 728, 731, 732, 743, 746, 747, 753, 755,
 780, 785-6
 blood gills, 41, 73
 blowflies, *see* Calliphoridae
 blue-tongue virus (of sheep), 732, 746
 bluebottles, *see* Calliphoridae
 Blum, M. S., 33
 Blunt, W., 200
 Boarmiinae, *see* Ennominae
Bobilla, 386; *B. neobivittata* (Chopard), 385
 Bocchinae, **971**
Bocchus, 971
 Bock, I. R., 182, 250, 777, 778
 Bock, W. J., 114, 119
 Bode, W., 510, 511, 513
 Bodenheimer, F. S., 441
 body louse, *see* *Pediculus humanus*
Boerhavia (BOT.), 904
 Boganiidae, 194, 564, 565, 578, 601, 605,
 648, 649, **650**
 Boganiinae, 601
Boganium, 650
 bogong moth, *see* *Agrotis infusa*
 Bohart, R. M., 973, 993
 Bohartillidae, 685, 691, 692
 Bohn, H., 321
Bojophlebia, 160; *B. prokopi* Kukulová-Peck,
 160
Bolbe, 355; *B. maia* Tindale, 355
 Bolboceratinae, 563, **627**
 Boletaceae (FUNGI), 625
 Bolitophagini, 665, 667
 Bolitophilinae, **751**
 Bolivar y Pieltain, C., 410
 Bolton, B., 916
 bombardier beetle, *see* *Pheropsophus verti-*
calis
 Bombinae, 830, 904, 1000
Bombus, 1000
 Bombycidae, 832, 899, 900, 901, **902**, 973
 Bombycoidea, 822, 826, 830, 832, 833, 846,
 895, **899-904**, 905
 Bombyliidae, 97, 100, 377, 729, 732, 734,
 752, 753, 756, **758-9**, 929, Pl. 6
 Bombyliinae, 758, **759**
Bombyx, 47, 902; *B. mori* (Linnaeus), 58, 231,
 899, 902, 973
 Bond, W. J., 83
Bonia, 881, 888; *B. nigella* Newman, 876
 Bonell, M., 340
 booklice, *see* Psocoptera
Boophilus (ACARINA), 183; *B. microplus*, 183,
 246
 Boopiidae, 422, 423, 425, 426, **427**
Bootanelleus orientalis Mathur and Hussey,
 962
Bootania, 962
 Boraginaceae (BOT.), 852, 867, 909
 Borboridae, *see* Sphaeroceridae
 Borchsenius, N. S., 464
 Boreham, P. F. L., 217
 Boreidae, 139, 696-703 *passim*
Boreocixius, 170
Boreoides, 718, 755, 950; *B. subulatus* G. H.
 Hardy, 754
Boreus, 697, 699, 700
 Borgmeier, T., 763
 Boridae, 565
 Borkent, A., 139, 746, 749
Bormansia, 363
 Bornemissza, G. F., 247, 271, 563, 630, 700,
 701
 Bömer, C., 456
Boronia (BOT.), 464
 Borowiec, L., 676, 677
 Borrer, D. J., 24
Bos taurus, *see* mammals: cattle
 Bostrichidae, 547, 557, 560, 562, 563, 564,
 576, 577, 586, 595, 601, 605, 618, 641,
642-3, 646, 651, 656, 938, 965
 Bostrichiformia, 564, 565, **640-4**
 Bostrichinae, 642, **643**
 Bostrichoidea, 552, 554, 564, 565, **641-4**
 Bostrychidae, *see* Bostrichidae
Bostrychopsis jesuita (Fabricius), 643
 Boswell, K. F., 243
 bot flies, 96, 174, 784-5; *see also* Gasterophil-
 idae; Oestridae
Botanobia tonnoiri (Malloch), 352
 Botany Bay, 225, 226
 Botany Bay weevil, *see* *Chrysolopus specta-*
bilis
 Bothrideridae, 547, 559, 560, 562, 565, 580,
 581, 582, 585, 588, 589, 590, 593, 597,
 603, 655, **656**, 659, 660
 Bothriderinae, 562, 581, 588, 593, 597, 655,
656
Bothriogryllacris, 381
 Bothriomirini, 492
Bothriomutilla rugicollis (Westwood), 978
Bothriomyrmex, 984
 bothriotricha, 252
Bothrochilus (REPTILIA), 339
Bothroponera, 984
 Botosaneanu, L., 174
 Bouček, Z., 957, 961-70 *passim*
 Boudreaux, H. B., 125-39 *passim*
 Boulard, M., 435, 465
 Bourgoin, T., 132, 134, 135
 Bourletides, 264
 Bourletiellini, 256, 264
 Bousquet, Y., 613
Bovicola: *B. bovis* (Linnaeus), 424, 427; *B.*
caprae (Gurll), 427; *B. ovis* (Schränk),
 422, 424, 425, 427
 Böving, A. G., 559, 565
 Bowden, J., 759
 Bowler, J. M., 195
 Boyes, J. W., 717
Bracalba, 954
 Brachininae, 92, 554, 563, 591, 610, 611, **614**
 Brachodidae, 832, 855, 871, 874, **875-6**
Brachycaudus helichrysi (Kaltenbach), 454;
B. persicae (Passerini), 454, 455
 Brachycentridae, 795
 Brachycera, 67, 719, 721, 728, 730, 732, 734-
 5, 747, **751-86**
Brachychiton (BOT.), 449, 450, 864, 962; *B.*
populneum, 683
 Brachycistidinae, 978
Brachycyrtus, 945
 Brachydiplactinae, **310**
Brachydiplax, 310
 Brachylabidinae, *see* Isolabidinae
 Brachylabinae, *see* Isolabidinae
Brachylabis, 367
Brachymeria, 960, 961; *B. ovata* (Walker),
 961
 Brachymeriini, 961
Brachyepplus, 650; *B. planus* Erichson, 648
 Brachyplatidae, *see* Plataspidae
Brachyplatys, 507
Brachypsectra, 636, 639; *B. fulva* LeConte,
 636-7
 Brachysectridae, 117, 557, 559, 564, 569,
 593, 594, 595, **636-7**, 639
Brachyopsylla, *see* *Diaphorina*
 brachyptery, 12, 49, 68, 69, 75, 93, 313, 315,
 318, 327, 329, 353, 356, 371, 380, 381,
 384, 389, 391, 401, 402, 407, 412, 417,
 440, 469, 474, 475, 476, 478, 480, 481,
 489, 491, 496, 501, 502, 503, 538, 550,
 689, 698, 763, 772, 785, 819, 828, 848,
 860, 870, 908, 909, 910, 921, 940, 950,
 953, 963, 965, 967, 971, 973, 975; *see also*
 microptery
Brachyscelidiphaga, 965
Brachystomella: *B. diana* Greenslade and
 Najt, 254; *B. parvula* (Schäffer), 261; *B.*
platensis Najt and Massoud, 261
 Brachystomellidae, 254, 257, 258, 259, **260-1**
Brachy tarsina: *B. amboinensis* (Rondani),
 786; *B. uniformis* Maa, 785
 Brachytroninae, 304, 308, **309**
 bracken, *see* *Pteridium aquilinum*
 bracket fungi, *see* Polyporaceae
 Braconidae, 388, 415, 440, 441, 455, 491,
 524, 562, 732, 831, 922, 923, 925, 930,
 938, 940, 943, **945-9**, 956, 960-9 *passim*,
 Pl. 6
 Braconinae, 860, 944, 946, 947, **948**, 949, Pl.
 6
Bradiopsylla, 711, 714; *B. echidnae* (Denny),
 708, 712, 714
 Bradley, J. C., 400
 Bradley, J. D., 858, 865
 Bradynobaenidae, 931, 974
Bradysia, 749
 Brahmaeidae, 832
 brain, 42, 50
 branchial basket, 41, 300
 branchial chamber, 41, 300
 Brancucci, M., 640
 Brandmayr, P., 614
 Brassicaceae (BOT.), 231, 455, 634, 857, 889,
 897
 Brauckmann, C., 158, 161, 168
Braula coeca Nitzsch, 97, 780
 Braulidae, 27, 735, 763, 764, **780**
 Brauloidea, 735, **780**
 Brauns, A., 717
Braunsapis, 999, 1000
 Breland, O. P., 728
 Brentidae, 339, 553, 561, 563, 565, 566, 579,

- 585, 592, 678, **680-2**
 Brentinae, 579, 592, **680-2**
Brentiscerus putoni (White), 502
 brevicomin, *exo-*, 55
Brevicoryne brassicae (Linnaeus), 455
Breytia (BOT.), 454, 456, 897; *B. oblongifolia*, 854
 Brian, M. V., 330
 bridge, in Odonata, 297
 Briese, D. T., 71
 Brimblecombe, A. R., 459, 464
 Brinck, P., 20, 21, 22, 131, 282
 Brindle, A., 363, 364, 365, 366
 Brindley, H. H., 362
Brises, 665
 bristletails, *see* Archacognatha
 British Museum (Natural History), 200-8 *passim*, 213-18 *passim*, 226
 Brittain, J. E., 283
 Britton, E. B., 543, 544, 609, 615, 618, 630, 634, 658, 660, 675, 682
 Broadhead, E. C., 770
 Broce, A. B., 720
 Brockmann, H. J., 93, 103
 Brodskiy, A. K., 314
Bromeliaemiris puncticollis Hsiao, 493
 Brongniartellidae, 175
Brontispa, 677
Brontopriscus, 651
 bronze orange bug, *see Musgraveia sulciventris*
 Brookes, H. M., 463, 464
Brookesiella, 461
 Brooks, J. G., 669
 Brooks, R. W., 993
 Broscini, 564, 612, 614
 Brossut, R., 322
 Brothers, D. J., 510, 920, 936, 971, 977, 993
 Brown, D. R., 989
 Brown, F. M., 167
 Brown, G. R., 978
 Brown, H. P., 634
 Brown, Robert, 199, 201-2, 203
 Brown, R. L., 868, 873
 Brown, S. W., 458
 Brown, V., 113
 Brown, V. K., 941
 Brown, W. L., 80, 113, 320, 362, 989
 Brown, W. V., 100, 341, 345, 561, 563, 632, 668
 brown lacewings, *see* Hemerobiidae
 Browning, T. O., 212, 246
 Brucheiseridae, 530, 531
 Bruchidae, *see* Chrysomelidae
Bruchidius, 677; *B. lyndhurstensis* (Blackburn), 674
 Bruchinae, 547, 563, 578, 587, 593, 594, 672, 674, 675, 676, **677**
Bruchophagus, 929, 962; *B. fellis* (Girault), 962; *B. roddi* Gussakovskiy, 962
Bruchus pisorum (Linnaeus), 677
Brueelia, 423
 Brues, C. T., 24
 Brundin, L., 116, 182, 187, 188, 189, 195, 196, 250
Brunettia, 747
Brunotartessus fulvus (Walker), 471
 Bryan, W. H., 218
 Bryocorinae, 491, 492, **493**
 Bryocorini, 492
 Bryozoa, 530
Bubalus bubalis, *see* mammals; buffalo
Bubastes, 632
 bucco-pharyngeal armature, 728
 bucculae, of Hemiptera, 430
 Bucculatricidae, 832, 847, **851-2**, 854, 855, 856
Bucculatrix, 851-2, 856; *B. gossypii* Turner, 851-2
 Buchanan, G. A., 457
 Buckley, R. C., 85
 Bückmann, D., 399
 buffalo fly, *see Haematobia exigua*
 bugs, *see* Hemiptera
 bulbs, pests of, 257, 763
 Bull, L. B., 211
 bulla, of Neuroptera, 527
 bulla seminalis, 824
 bulldog ants, *see Myrmecia*
 Bullen, F. T., 378
 bumble bees, *see Bombus*
Bungona, 287; *B. narilla* Harker, 288
 Büning, J., 136, 137, 555
 Bunn, S. E., 287, 311
 Buprestidae, 30, 117, 223, 550, 552, 557-66
 passim, 570, 587, 593, 631, **632**, 637, 639, 640, 656, 934, 941, 967, Pl. 4, Pl. 6
 Buprestinae, **632**, Pl. 4
 buprestins, 632
 Buprestoidea, 564, 565, **632**
 Burakowski, B., 637, 638, 649
 Burbidge, N. T., 181, 196, 201
 Burckhardt, D., 448, 450, 641, 642
 Bürgis, H., 971
 Burks, B. D., 285
Burlacena aegerioides Walker, 878
 Burmeister, E.-G., 553, 609
Burmitembia, 165
Burmjapyx, 271
 burnets, *see* Zygaenidae
 Burnham, L., 144
 Burnside, V. W., 468
 Burr, M., 364
 Burrmyiidae (MAMMALIA), 714
 burrowing bugs, *see* Cydnidae
 burrowing insects, *see* fossorial insects
 bursa copulatrix, 555, 824
Bursaria (BOT.), 844, 899; *B. spinosa*, 873, 882
 bursicon, 38, 50
 Bush, G. L., 112, 183, 700
 bush fly, *see Musca vetustissima*
 bushcrickets, *see* Tettigoniidae
 Busnel, R.-G., 373
 Busvine, J. R., 113
 Butler, M. G., 68
 Butlin, R., 112
 butterflies, 40, 52, 91, 106, 107, 113, 185, 203, 205, 206, 213, 214, 215, 218, 224, 231, 237-8, 829, 830, 831, 834, 874, 893-9; *see also* Hesperioidea, Papilionoidea
 butyloctahydro-5-methylindolizine, 3-, 55
 butyrate, 336
 Buxton, P. A., 423, 424, 425
Byblis (BOT.), 86, 88, 493
 Byers, G. W., 696, 699, 703
 Byrne, O. R., 391
 Byrrhidae, 117, 564, 565, 566, 569, 572, 580, 595, 632, 633, **634**, 639, 642, Pl. 5
Byrrhinus, 634
 Byrrhoidea, 564, 565, **632-6**
Byrrhocryptus, 560, 635, 636, 639; *B. oblongus* (Carter), 633; *B. variegatus* (Carter), 554, 566
 Byturidae, 552, 565
 cabbage centre grubs, *see Hellula* spp.
 cabbage cluster grub, *see Crocidolomia pavonana*
 cabbage white, *see Pieris rapae*
 cabbages, pests of, 231, 857, 889, 897
 Cable, K. J., 204
 Cacatuidae (AVES), 89
 Cachoplistinae, 384
Cacorhinus lateripictus Jordan, 679
Cactoblastis, 112, 831; *C. cactorum* (Berg), 210, 232, 461, 884, 887
 Cacurgidae, 168
 caddis-flies (caddises), *see* Trichoptera
Cadmus, 678
Cadra: *C. cautella* (Walker), 887; *C. figulifera* (Gresson), 887
Cadrema nigricornis flavus (Thomson), 780
 caducous scales, 90, 92
Caecicoris, 497
 Caeciliidae, 413, 416, 418, **419**
 Caecilioidea, 416
Caecilius, 12, 413, 414, 419, 420
Caedicia, 384; *C. major* Brunner, 383
 Caelifera, 134, 371, 376, 377, 378, **387-93**
 Caenidae, 279-90 *passim*, **293**
Caenis robusta Eaton, 280
 Caenoidea, 285, **293**
Caenolanguria, 654; *C. vulgaris* (Harold), 655
 Caenolestidae (MAMMALIA), 427
Caenomirurus, 680
Caenota, 789, 797, 806, 809; *C. plicata* Mosely, 791, 799, 812, 815
 Caenozoic Era, 141, 142
 Caesalpiniaceae (BOT.), 503, 897
Cafius, 624
Cairnsimyia, 771, 772
 Calabrese, D. M., 485
 Calaby, J. H., 196, 339, 340, 421
 Calamoceratidae, 174, 787, 788, 790, 794-800
 passim, 808, **813-16**
Calaphis, 454
Calathusa, 914
 calcar, 921
 calcium, 61
 Calder, A. A., 555, 637, 682
Caledia captiva (Fabricius), 243, 390
Cales, 968
Caligrion billinghursti (Martin), 300, 307
Calicosis, 860
Caliothrips indicus Bagnall, 511
Caliroa cerasi (Linnaeus), 509, 927, 933, 934
 Callisinae, **497**
 Callahan, P. S., 823, 825
 Callan, E. McC., 664
 calli, *see* pseudolegs; humeral, *see* humeri; postalar, 721
Callibaetis, 282
Callibracon, 948
Callidircaea, 663
 Callidulidae, 832
 Calliduloidea, 832, 833
Callionyma sarcodes Meyrick, 884, 887
Callipappus, 459, 463
Calliphara imperialis (Fabricius), 508
 Callipharixenidae, 691, 692
Calliphora, 57, 62, 782; *C. augur* (Fabricius), 72, 226, 782; *C. nociva* G. H. Hardy, 782; *C. stygia* (Fabricius), 72, 226, 720, 727, 783; *C. tibialis* Macquart, 98; *C. vicina* Robineau-Desvoidy, 728
 Calliphoridae, 40, 44, 61, 64, 65, 69, 72, 90-1, 96, 98, 110, 212, 720, 725-35 *passim*, 768, **781-2**, 783, 929, 950, 961, 965, 991
 calliphorin, 62
 Calliphorinae, **782**
 Calliptaminae, 164
Callipteroma, 967
 Callirhipidae, 117, 545, 558, 564, 566, 569, 586, 588, 593, 631, 632, **635**
Callirhipis, 635; *C. cardwellensis* Blackburn, 635
Calliscelio, 954
 Calliscelionini, 954
Callistemon (BOT.), 86, 194, 502, 513, 842, 873, 913, 935, 994
 Callistini, 612
Callistoleon, 541
Callitris (BOT.), 344, 507, 509, 680, 934
Callomelitta, 995
 Callosobruchus, 677
 Calobatidae, *see* Micropezidae
Caloca: *C. ascita* Neboiss, 799; *C. saneva* (Mosely), 815; *C. straminea* Mosely, 791, 806
Calochrysa, 539
 Calociidae, 787, 791, 795, 797, 798, 799, 806, **809**, 812, 815
Calocoris norvegicus (Gmelin), 493
Calodema regalis (Laporte and Gory), Pl. 4
 Calodromini, 682
Calofulcinia, 355

- Calolampra*, 323, 329; *C. irrorata* (Fabricius), 329
 Calomantispinae, **538**
Calomela, 678
 Caloneuroidea, 142, 167, 168
Calophya, 449
 Calophyidae, 443, 448, **449**
Calophyllum (BOT.), 450
 Calopsocidae, 416, 418, **419**
Calopsocus, 415; *C. guttatus* Smithers, 419
Caloptenopsis, 163
 Calopterygidae, 304, 306, **307**
 Calopterygoidea, 304, **307**
Caloptilia, 852, 853, 855; *C. azaleella* (Brants), 853
Calosoma, 614; *C. schayeri* Erichson, 544, 554, Pl. 4
Calosota, 967
 Calosotinae, **967**
Calymmaderus incisus Lea, 644
 calypters, 723
 Calyptomerinae, 601
Calyptomerus dubius (Marshall), 625
Calyptorhynchus funereus (AVES), 89
Calyptra, 912
 calyptrate Diptera, 764, 780
Camacinia oihello Tillyard, 310
 Cambrian Period, 141, 142, 143
 camel crickets, *see* Rhaphidophoridae
 camelneck-flies, *see* Raphidioptera
 Cameron, H. M., 325, 328
Cameronella, 964
 Camiariinae, 563, 620, **621**
 Camillidae, 734, 777
 Campbell, A. J., 241
 Campbell, I. C., 182, 195, 279-89 *passim*, 292
 Campbell, K. G., 400
 camphor laurel, *see* *Cinnamomum camphora*
 Campichoetidae, 734, 777
Campion, 527, 533, 538; *C. australasiae* (Guérin-Ménéville), 538
Campodea, 270, 271; *C. (C.) fragilis* Meinert, 271; *C. (Indocampa) froggattii* (Silvestri), 271; *C. (I.) novaecaledoniae* Condé, 271; *C. (I.) tillyardii* (Silvestri), 271; *C. (?) waterhousei* Womersley, 271; *C. (Monocampa) devoniensis* (Bagnall), 271; *C. (M.) quillisi* Silvestri, 271; *C. (M.) tonnoiri* (Womersley), 271
 Campodeidae, 128-9, 130, 269, 270, **271**
 Campodeinae, **271**
Campodella, 271; *C. clavigera* Silvestri, 271; *C. milloti* Condé, 271; *C. tiegsi* Womersley, 271
Camponotus, 224, 694, 763, 899, 966, 980, 982, 985, 986, 987, 989; *C. inflatus* Lubbock, 224; *C. papua* Emery, 688; *C. quadriceps* Smith, 84
 Campoplegidae, **945**
Campoplex, 945
Campsomeris, 978, 979
Campsurus, 279
Camptodes, 649
 Camptosomata, *see* Cryptocephalinae
Camptotypus, 944
Campylomma, 493; *C. livida* Reuter, 493
 Camras, S., 768
 Canacidae, 75, 735, 767, **779**
 Canard, M., 539
 Cancemi, P., 940, 941
Candalides, 899; *C. absimilis* (Felder), 899
 Candolle, A. P. de, 180
 canegrubs, *see* Scarabaeidae
 Canidae (MAMMALIA), 426, 428
 cannibalism, 91, 102, 257, 270, 304, 352, 353, 363, 407, 829
 canonical variates analysis, 116
 Canopidae, 444
 canopy insects, 111
 Cantacaderinae, **493**
 Cantharidae, 178, 547, 550, 556, 560, 561, 564, 566, 570, 583, 584, 586, 587, 590, 638, 639, **640**
 cantharidin, 563, 668
 Cantharoidea, 117, 565, 632, 636
 cantharophilus, 84
Canthium (BOT.), 858, 883, 904; *C. attenuatum*, 872; *C. coprosmoides*, 893; *C. oleifolium*, 883, 893
 canthus, 544
Canthyrus, 616
 Canthyloscelidae, 734
 Cantrell, B. K., 782, 784
 Caon, G., 513
 Cape gooseberry, pests of, 493, 677
 Cape York birdwing, *see* *Troides priamus*
Capitophorus elaeagni (del Guercio), 454
 capitulum, 396
 Capniidae, 313, 314
 Capnodiaceae (FUNGI), 641
 Capparidaceae (BOT.), 897
Capparis (BOT.), 897; *C. mitchellii*, 888
Car, 579, 680
 Carabidae, 72, 75, 92, 181, 185, 205, 216, 257, 274, 339, 442, 543-51 *passim*, 554, 557, 560-4 *passim*, 567, 586-92 *passim*, 609, 610, **611-14**, 954, Pl. 4
 Carabinae, 611, **614**, Pl. 4
 Carabini, 611, 614
Carabocoris, 502
 Caraboidea, 564
Caraphlebia, 162
Carausius, 57; *C. morosus* Brunner, 394, 399
 Carayon, J., 435, 440, 489, 491
 carbohydrases, 57
 carbohydrates, 58, 60, 61
 Carboniferous Period, 141, 142, 143-4; in Australia, 178, 193
 carcasses, *see* carrion
 Carcinophoridae, *see* Anisolabididae
 Cardale, J. C., 311, 314-19 *passim*, 980, 993
Cardamine (BOT.), 634
 cardia, 730
Cardiaspina, 448, 449; *C. albicollaris* Taylor, 438; *C. albitextura* Taylor, 80, 246, 451; *C. tatrix* (Froggatt), 450
Cardiastethus, 489
Cardiochiles, 949
Cardiochilinae, 947, **949**
Cardiocondyla, 982
Cardioperla, 318
 Cardiophorinae, **638**
Cardiothorax, 667
 cardo, 8
Carenum, 614; *C. sumptuosum* Westwood, Pl. 4
 Carey, S. W., 191
Carinosmylus, 537
Carissa ovata (BOT.), 910
 Carlberg, U., 399
Carmenta chrysophanes (Meyrick), 877, Pl. 7
Carminator, 939
 carminic acid, 461
 Carnaby, K., 632
Carnarviana, 542
 Carne, P. B., 2, 79, 89, 121, 221, 627, 629, 630, 631, 673, 678, 830
 Carnidae, 93, 94, 734, 766, **775-7**
 Carninae, 766, 777
 carnivorous, *see* predacious
Carobius, 539
 carotenoids, 40, 58
 Carpenter, F. M., 143, 151, 160, 162, 163, 166, 168, 169, 172, 176, 196, 216, 320
 Carpenter, J. M., 970, 979, 980
 carpenter bees, *see* Xylocopinae
 Carpentier, F., 154
 carpet beetles, *see* *Anthrenus*
Carphurus, 647
Carpophagus, 677
 Carpothilinae, **650**
Carpophilus, 649; *C. davidsoni* Dobson, 650; *C. dimidiatus* (Fabricius), 650; *C. hemipterus* (Linnaeus), 650
Carposina, 881; *C. autologa* Meyrick, 881; *C. hyperlopha* Turner, 881; *C. neurophorella* (Meyrick), 876
 Carposinidae, 826, 832, 876, **880-1**, 888
 Carr, H., 673
 carrion (decaying animal matter), 257, 618, 620, 621, 624, 627, 646, 647, 653, 747, 763, 769, 780, 782, 956, 965, 985; dried animal remains, 563, 627, 642, 644, 646, 770, 849, 850
 carrot, pests of, 453
 Carsidaridae, 443, 448, **449-50**
 Carson, H. L., 114
 Carter, C. I., 456
 Carter, D. J., 826, 834, 835, 858
 Carter, H. B., 201
 Carter, H. J., 199, 215-6, 219, 632, 656, 664, 667
Carthaea, 902, 905; *C. saturnioides* Walker, 901, 903
 Carthaeidae, 831, 832, 899, 900, 901, **902-3**, 905
Cartodere constricta (Gyllenhal), 660
 carton (nest material), 338, 980
 Cartwright, D. I., 798, 801
 Carvalho, J. C. M., 492, 493
Carvalhoa, 492
 Carventinae, **497**
Carventus, 497
 Carver, M., 429, 448-56 *passim*, 465, 467, 468, 474, 479, 480, 481, 948
Carya (BOT.), 456
Caryedon serratus (Olivier), 677
Carystea, 678
 Cascio, T., 823, 825
 Case, T. J., 185
 case-bearing clothes moths, *see* *Tinea*
 case-making larvae, 93, 677-8, 792, 793, 794, 798, 800, 801, 805-16 *passim*, 830, 842-4, 848, 849, 850, 854, 860, 864, 868, 869, 873, 886, 887; *see also* tube-inhabiting
 Casimir, M., 377, 378, 391, 496
Casinaria, 945
Cassia (BOT.), 504, 897
 Cassidinae, *see* Hispiniae
 Cassidini, 674, 676, 677
 Cassis, G., 88, 429, 488, 489, 491, 493, 508
Castanea (BOT.), 456
 castes, 102, 103, 330, 331, 929, 980-9 *passim*, 993, 1000; determination, 333, 335, 336-7, 982; polymorphisms, 113, 332, 333, 337, 347, 982, 986; recognition, 34
Castiarina, 632
 Castle, W. E., 240
 Castniidae, 831, 832, 871, **874**, 875, 888, Pl. 8
 Castnoidea, 820, 832, 833, 846, **874**, 875, 888
Casuarina (BOT.), 194, 442, 450, 461, 468, 470, 473, 493, 503, 515, 755, 850, 864, 900, 962, 964, 965, 968
 Casuarinaceae (BOT.), 450
Casuarinaloma, 461
Casuarium casuarium (AVES), 427
 cat flea, *see* *Ctenocephalides felis*
Catacanthus nigripes (Sulzer), Pl. 3
 Catadema, 365
 catalepsy, 398
 catalogues, 112
Catamola thyrissalis (Walker), 887
 Catantopinae, 387, 390, **391**
 Catapterigidae, 832, 833
 caterpillars, 65, 228, 442, 614, 696, 787, 825-7, 928, 945, 979, 980; caterpillar hair dermatitis, 228, 830-1; *see also* larva (eruciform); Lepidoptera
 Catiniidae, 178, 608
Catoblemma, 829, 831
 Catocalinae, **912**
 Catopidae, *see* Leiodidae
 Catopocerinae, 621
Catoposchema, 621
Catopsilia, 829, 897; *C. pomona* (Fabricius), 829, 897; *C. pyranthe* (Linnaeus), 897
Catorctis, 862
 cattle tick, *see* *Boophilus microplus*

- cauda, 453
caudal style, 19; vesicle, 943, 946-7
Caudell, A. N., 400
Caufrenyllodes, 260
Caughley, G., 247
Cauloptera, 151
Caussanel, C., 363
Cautomus, 582, 656; *C. mirabilis* (Oke), 655, 656
Cavariella aegopodii (Scopoli), 453, 454
cave crickets, *see* Rhaphidophoridae
cave-frequenting insects, 71-2, 91, 256, 261, 262, 263, 264, 271, 276, 278, 307, 320, 321, 323, 328, 357, 359, 376, 381, 386, 414, 417, 476, 485, 542, 560, 614, 620, 624, 665, 750, 751, 771, 773, 786
Caveney, S., 544, 641, 644
Cavognatha, 653; *C. pullivora* Crowson, 652, 653
Cavognathidae, 563, 565, 573, 597, 602, 652, 653
Cayratia (BOT.), 904
Cebrioninae, 562
Cebysa, 854; *C. leucotelus* Walker, 845, 848
Cecidomyiidae, 30, 41, 81, 441, 719, 728-39 *passim*, 747, 749, 750, 952, 962, 965, 967
Cecidopsylla, 449; *C. paterae* Taylor, 449; *C. putealis* Taylor, 449
Cecidosidae, 832, 833, 842
Ceinae, 963
Celaenia kinbergi (ARANEAE), 90
Celastraceae (BOT.), 676
Celaticoccus, 461
Celatoblatta, 325
Celibe, 667
cell construction, by Hymenoptera, 928-9, 975, 980, 990, 993-1000 *passim*
cell-theory, 237
cellulases, 257, 276, 336, 642
cellulose, as food, 57, 59, 329, 336
Celyphidae, *see* Lauxaniidae
cement, 34, 96
Cemistominae, 857, 858
cenchri, 918, 931
Cenocoeliinae, 947
Cenoloba, 883; *C. obliteralis* (Walker), 882, 883
centipedes, *see* Chilopoda
centres of origin, 184
Centrioncidae, *see* Diopsidae
Centrodera, 966, 968
Centrogonus, 496
Centroptilum, 287, 288, 290
Cephaleini, 440, 442, 469, 472
Cephalelus ianthe (Kirkaldy), 470
cephalic apotome, 729
cephalic fans, 729
Cephalodesmus, 630
Cephalogryllini, 386
Cephaloidea, 565
Cephalonomia, 973
Cephalonomiini, 973
cephalopharyngeal skeleton, 730
Cephalopina titillator (Clark), 785
Cephaloplatus, 508
Cephaloplectinae, 604
Cephalops, 763
Cephalotaceae (BOT.), 87
cephalotheca, 687
cephalothorax, 686, 925
Cephalotus (BOT.), 87, 88, 771; *C. follicularis*, 87
Cephenniini, 621
Cephidae, 918, 930, 931, 935
Cephoidea, 930, 931, 932, 936
Cephonodes, 904; *C. kingii* (Macleay), 830, 904
Cephrenes, 898
Cerambycidae, 100, 178, 223, 543, 544, 545, 557-65 *passim*, 570, 578, 583, 584, 586, 587, 593, 595, 598, 640, 646, 656, 672-4, 677, 685, 934, 941, 945, 948, 956, 963, 967, 971, Pl. 4, Pl. 6
Cerambycinae, 584, 672, 673, Pl. 4
Ceranisus, 513, 969
Cerapachyini, 983, 987
Cerapachys, 985, 987
Ceraphron, 940
Ceraphronidae, 920, 930, 940
Ceraphronoidea, 97, 175, 918, 921, 930, 935, 937, 939, 940-1
Ceratanisini, 667
Ceratina, 995, 999
Ceratinini, 999
Ceratitius capitata (Wiedemann), 207, 771
Ceratobaeus, 954
Ceratocanthidae, 339, 561, 564, 568, 602, 626, 627
Ceratocombidae, 443, 481, 482
Ceratocombus, 481; *C. australiensis* Gross, 481, 482
Ceratognathus, 563, 626
*Ceratokaloterme*s, 343-4; *C. spoliator* (Hill), 343
Ceratoleon brevicornis Esben-Petersen, 541
Ceratomansa, 919, 920, 945
Ceratomerinae, 760
Ceratomerus, 760
Ceratophyllidae, 710, 711, 715, 716
Ceratophylloidea, 708, 709-10, 714-16
Ceratophyllus, 711, 716; *C. gallinae* (Schrank), 716
Ceratopogonidae, 88, 98, 218, 219, 227, 229, 231, 731, 732, 734, 737, 738, 740, 744, 745, 746
Ceratosolen, 963
Ceratovacuna, 454
Cerceris, 562, 927, 990, 992, 993
cerci, 19, 150
Cercobarcon, 946
Cercobarconinae, 946, 947, 948-9
Cercofilata, 128, 150, 153, 155
Cercophanidae, 832
Cercopidae, 57, 170, 435, 442, 443, 467, 468, 469, 690, 694, Pl. 3
Cercopodata, 153, 155
Cercopoidea, 167, 170, 430, 438, 443, 445, 446, 464, 467-8
Cercotmetus, 486
Cercyon haemorrhoidalis (Fabricius), 618
Cerdistus, 758
cereals, pests of, 108, 455, 472, 513, 562, 563, 637, 642, 914, 962
Ceriagrion aeruginosum (Brauer), 307
Ceriana, 763, 768
Ceriferella, 456
Cerioides macleayi Ferguson, Pl. 6
Ceriops (BOT.), 343
Cermatulus, 509; *C. nasalis* (Westwood), 509
Cerocephalinae, 965
Cerococcidae, 443, 458, 461, 462
Cerococcus, 461; *C. stellatus* (Maskell), 462
Cerodontia robusta Malloch, 775
Ceromitia, 843; *C. iolampra* (Turner), 845
Ceropales, 975, 976
Ceropalinae, 975, 976, 977
Cerophytidae, 117, 178, 559, 564
Ceroplastes, 464; *C. destructor* Newstead, 463, 464; *C. rubens* Maskell, 464
Certonotus, 941, 945
cerumen, 1000
Cerura, 828, 906; *C. australis* Scott, 903, 906
cervical ampulla, 65, 372
cervical sclerites, 546, 720, 918
Cerylon, 590
Cerylonidae, 551, 557, 558, 565, 566, 580, 581, 582, 584, 590, 594, 601, 603, 655, 656, 659
Ceryloninae, 558, 580, 584, 594, 655, 656
Cerylonopsis, 582, 656; *C. alienigenus* (Blackburn), 655
Ceryx, 910
Cestoda (cestodes), 89, 212, 364, 415, 425, 709
Cethosia cydippe (Fabricius), 898, Pl. 8
Cetoniinae, 547, 627, 628, 629, 631, Pl. 4
Ceutorhynchinae, 683
Chadwick, C. E., 216
Chaerodini, 667
Chaetanaphothrips, 515
Chaetarthriinae, 618
Chaeteessidae, 353
Chaetocanace, 779
Chaetocneme, 893
Chaetocoelopa sydneyensis (Schiner), 773
Chaetoleucopsis, 769
Chaetophthalmus, 783, 784
Chaetophyes, 468; *C. compacta* (Walker), 468, 469
Chaetopiophila, *see* *Piophilosoma*
chaetosemata, 817
Chaetosomatidae, 564, 645
Chaetospania, 367; *C. brunneri* (Bormans), 363, 367
chaetotaxy, 5; of Collembola, 256; of Diptera, 718, 722; of Lepidoptera larvae, 826, 827; *see also* setation
chafers, *see* Melolonthinae
Chagas' disease, 496
Chaitophorinae, 454
Chalarotona, 862; *C. intabescens* Meyrick, 862
Chalarus, 763
Chalcididae, 48, 930, 957, 958, 960-1, 962
Chalcidinae, 960, 961
Chalcidini, 961
Chalcidoidea, 26, 81, 97, 175, 208, 226, 352, 441, 562, 831, 917-31 *passim*, 935, 937, 941, 948, 954, 956-70
Chalcis, 961
Chalcodrya, 665
Chalcodryidae, 565, 574, 597, 665, 666
Chalcolampra, 678
Chalcophorinae, 632
Chalcopteroides, 667
Chalcoteuches phlogera Turner, 851
Chalcura, 966
Chalicodoma, 999
Chalotis semstola (Meyrick), 868
Chalybion bengalense (Dahlbom), 990
Chamaemyia, 769
Chamaemyiidae, 441, 734, 766, 769-70, 773
Chamberlin, J. C., 460, 464
Champion, G. C., 647, 663, 668
Chandler, D. S., 624
Chandra, H. S., 458
Chaoboridae, 90, 115, 116, 734, 736, 738, 742-3
Chaoborus, 115, 116, 743
Chapman, R. F., 10, 33-43 *passim*, 46, 49, 50, 51, 52, 56, 57, 60, 61, 65
Chaquihua, 188
characters, 113, 117, 124
character states, 113, 117, 124; polarity, 117-18
Charadrius bicinctus (AVES), 422
Charaxes latona (Butler), 898
Charaxinae, 897-8
Charideinae, 877
Charilaidae, 378
Chariotheca, 563
Charipidae, 930, 954, 955, 956
Charipinae, 956
Charitopus, 967
Charletonia (ACARINA), 400
Charmoses, 870
Charophyceae (stoneworts), 614
Charpentier, R., 635
Chasmodon, 534, 542
Chathamidae, 74, 789, 795, 797, 798, 799, 804, 807, 811
Chaudonneret, J., 132
Chauliodinae, 517, 519, 520
Chauliognathus, 640; *C. apterus* (Olliff), 566, 640; *C. lugubris* (Fabricius), 638, 639, 640
Chauliosialis, 176
Chauvin, G., 834
Chauvin, J. T., 834
checklists, 112

- cheese skipper, *see* *Piophilha casei*
Cheiloneris, 968
Cheilophleps, 934
 Cheirochelinae, 488
 chela, *see* legs: chelate
Chelaner, 70; *C. rothsteini* Forel, 70-1; *C. whitei* Wheeler, 70
Chelanoderus, 497
Chelepteryx, 900; *C. collesi* Gray, 900, 901
 Cheleutoptera, *see* Phasmatodea
 Chelicerata, 145, 146
Chelidurella acanthopygia (Géné), 363
Chelisoche, 367; *C. morio* (Fabricius), 90, 363, 367
 Chelisoichidae, 90, 364, 366, **367**
 Chelisoichinae, **367**
 Chelonariidae, 117, 564, 570, 596, 633, **636**
Chelonarium australicum Lea, 633, 636
 Cheloninae, 946, 947, **949**
Chelonus, 949
 chemical communication, 929
 chemical defences, 55-6, 92, 100, 229, 257, 324, 333, 345, 353, 371, 435, 513, 518, 529, 554, 561, 563, 609, 614, 624, 631, 640, 658, 665, 678, 830, 906, 908, 909, 925, 935, 944, 948, 989
 chemoreception, 7, 45-7
 chemotaxonomic characters, 114
 Chen, S., 167, 672, 677
 Cheng, L., 74, 75, 76, 483
 Chenopodiaceae (Bot.), 865
Chenuala, 900; *C. heliaspis* (Meyrick), 900, 901
 Chernova, O. A., 160, 285
 cherry trees, pests of, 934
 Chessman, B. C., 287-93 *passim*
 Chetverikov, S. S., 238, 239
Cheumatopsyche, 789, 811; *C. modica* (McLachlan), 791, 802
 Cheung, W. W. K., 57, 467
 chewing lice, *see* Amblycera; Ischnocera
Chiastoplonia, 497
 Child, C. M., 45
 Chilicolinae, *see* Xeromelissinae
 Chilocyclidae, 170
 Chilocorinae, **658**
 Chilopoda, 32, 88, 97, 119, 143, 146, 257, 274, 985
Chiloporter, 188
 Chiloxanthinae, **485**
 Chimaeropsyllidae, 710
Chimarra, 802, 810; *C. uranka* Mosely, 799
Chimiloides, 991
 China, W. E., 88, 479, 480, 495, 499, 507
Chinaella, 472
 Chinamyersiinae, **497**
 chinch bugs, *see* Blissinae
 Chinmick, L. J., 398
 'Chirodamus', 975
 Chironmyiidae, *see* Chyromyidae
Chironmyza, 23
 Chironomyzinae, **755**
 Chironomidae, 12, 40, 41, 44, 68, 73, 74, 75, 76, 89, 91, 97, 179, 182, 189, 195, 250, 251, 284, 285, 289, 304, 536, 696, 702, 719, 729-34 *passim*, 737, 738, 740, **744-6**, 747, 794
 Chironominae, **746**
 Chironomoidea, 734
Chironomus, 237, 726, 746; *C. alternans* Walker, 745; *C. australis* Macquart, 744; *C. tepperi* Skuse, 738
Chirothrips, 515
 Chisholm, I. F., 512
 chitin, 33, 34-5, 823
 Chlamisini, 677
Chlamisus, 563, 677
Chlamydatos, 493
Chlamydia (BACTERIA), 230
 Chlamydopsinae, 560, **618**
Chlamydopteryx, 478; *C. vulturinus* (Kirkaldy), 478
Chlenias, 889
 Chlidanotinae, **873**
 Chlidanotini, 873
 Chloephorinae, **913-14**
Chloethrips oryzae (Williams), 515
 chloride, 61; cells, 289
Chloroballus leucoviridis Tepper, 383, 384
Chlorobapta, 631
Chloroclystis, 891; *C. approximata* (Walker), 890
Chlorocoma, 822, 891, 892
 Chlorocyphidae, 304, 306, **307**
 Chlorogomphinae, 295
 Chloroperlidae, 314
 Chloropidae, 96, 97, 352, 513, 732, 735, 766, 779, **780**
 Chloropinae, 780
 Chloropoidea, 735, **779-80**
Choerocoris, 508; *C. paganus* (Fabricius), 508; *C. variegatus* (Dallas), 508
 Cholevidae, *see* Leiodidae
 Cholevinidae, 620, **621**
Chondrilla (Bot.), 234; *C. juncea*, 234-5, 732
 Chopard, L., 348, 351, 362, 363, 369
 chorda, of Lepidoptera, 820
 chordotonal organs, 44, 45, 465
Choretrum (Bot.), 852
 Choreutidae, 832, 855, 871, 874-5, **877**, 888
Choreutis basalis (Felder and Roggenhofer), 871, 877
 chorion, 63
Chorismagrion, 307
 Chorismagrioninae, 304, 305, **307**
Chorista, 697-704 *passim*; *C. australis* Klug, 9, 18, 20, 172, 700
Choristella, *see* *Microchorista*
Choristhemis, 310
 Choristidae, 172, 696-702 *passim*, **703-4**
Choristopsylla, 711, 714; *C. ochi* (Rothschild), 706, 707, 712
Choristotanyderus, 174
Choroterpes, 292
Chortoicetes, 43; *C. terminifera* (Walker), 70, 71, 105, 107-8, 246, 371, 377, 391, 392
 Chresmodidae, 164
 Christian, E., 254
 Christiansen, K., 252
 Christmas beetles, *see* *Anoplognathus*
 Christmas I. (Indian Ocean), 410, 642, 658, 773
Chromeurytoma, 965
 Chromeurytominae, **965**
 chromosomes, polytene, 112, 256, 260, 728
 Chrysauginae, 887
 Chrysididae, 97, 175, 400, 926, 931, 970, 971, 972, **973-4**, Pl. 5
 Chrysidinae, 972, **973**, 991
 Chrysidini, 973
 Chrysidioidea, 97, 408, 921, 931, 936, 937, **970-4**
Chrysis, 973
 Chrysothrininae, **632**
Chrysobothris, 632
Chrysodeixis argentifera (Guenée), 914
 Chrysolampinae, 957, **965**
Chrysolampus, 965
Chrysolina: C. hyperici (Forster), 563, 678; *C. quadrigemina* (Suffrian), 563, 678
Chrysolopus spectabilis (Fabricius), 225, 682, Pl. 5
 Chrysomelidae, 28, 73, 78, 79, 80, 178, 543, 547, 551, 556-65 *passim*, 578, 579, 584-96 *passim*, 672, **674-8**, 945, 948, 952, 961, 965, 968, Pl. 4, Pl. 5
 Chrysomelinae, 561, 562, 563, 584, 595, 674, 676, **678**
 Chrysomelini, 678
 Chrysomeloidea, 30, 547, 551, 552, 555, 558, 560, 565, 644, **672-8**
Chrysomphalus aonidum (Linnaeus), 463
Chrysomya: C. bezziana Villeneuve, 96, 246, 732, 782; *C. nigripes* Aubertin, 65; *C. rufifacies* (Macquart), 40, 44, 90, 731, 782; *C. saffranae* (Bigot), 725
 Chrysoomyinae, 781, **782**
Chrysonoma fascialis (Fabricius), 860
Chrysopa, 44, 526, 529, 537, 539; *C. (Mallada) basalis* Walker, 527
Chrysopasta elegans (Macquart), 783
 Chrysopelleiinae, **868**
Chrysophtharta, 678; *C. bimaculata* (Olivier), 678
 Chrysopidae, 63, 64, 78, 175, 441, 513, 525-38 *passim*, **539**, 945, 950
Chrysopilus, 752, 753; *C. gratus* Paramonov, 754
 Chrysopinae, **539**
Chrysopogon, 758; *C. crabroniformis* Röder, Pl. 6
 Chrysopolomidae, 832
Chrysops, 755
 Chrysopsinae, 754, **755**
Chrysotimus, 760
 Chvála, M., 760
Chyliza, 770, 774
 Chyromyidae, 734, 766, 767, **772-3**
 Chyromyinae, 766, 767, **773**
Ciampa arietaria (Guenée), 884, 889
 cibarial pump, 56, 707
 cibarium, 8, 56
 cicada killers, *see* *Exeirus*; *Sphecius*
 cicadas, *see* Cicadoidea
 Cicadellidae, 81, 170, 430, 432, 438-43 *passim*, 468, **469-72**, 473, 688, 689, 690, 694, 950, 968, 971, 973
 Cicadellinae, 438, 442, **470**, 471
 Cicadellini, 470
 Cicadelloidea, 78, 92, 93, 97, 99, 170, 430, 431, 438-46 *passim*, 464, 467, **468-72**, 830, 831, 877, 879, 968
Cicadetta, 438, 467; *C. crucifera* (Ashton), 465; *C. melete* (Walker), Pl. 3
 Cicadidae, 44, 50, 51, 92, 179, 195, 222, 224, 431-8 *passim*, 442, 443, **465-7**, 631, 962, 991, Pl. 3
 Cicadinae, 465, **467**
 Cicadoidea, 15, 57, 170, 182, 429, 430, 431, 435-46 *passim*, 464, **465-7**
 Cicadomorpha, 167, 169, 170, 433, 441, 442, 443, 445, **464-73**
Cicadoprosbole, 170
Cicadulina, 472
 Cichoriaceae (Bot.), 234
Cicindela, 610, 613, 614; *C. semicincta* Brulé, 545; *C. ypsilon* Dejean, 75
 Cicindellinae, 377, 563, 592, 610, 611, **613-14**, Pl. 4
 Ciconiiformes (AVES), 423
 Cidae, 552, 561, 562, 565, 581, 596, 597, 602, **660-2**, 969, 973
 Cilentio, R., 218
 Cillaeninae, **650**
 Cillié, J. J., 678
 Cimbicidae, 930, 934
Cimex: C. hemipterus (Fabricius), 227; *C. lectularius* Linnaeus, 93, 227, 442, 490
 Cimicidae, 27, 439, 440, 442, 443, 446, 488, **489-90**
 Cimicoidea, 23, 408, 415, 435, 439-47 *passim*, **489-91**
 Cimicomorpha, 171, 431-7 *passim*, 440, 443, 445, 480, 481, 482, **488-96**
Cinara, 454, 455
Cinnamomum camphora (Bot.), 895
 circulatory system, 60-2
 circumversion, 726
 Ciriacremininae, **449**
Cirrospilus, 969
Cis, 662; *C. bilamellatus* Fowler, 662; *C. cervus* Blair, 661
cis-8-dodecenyl acetate, *see* dodecenyl acetate
cis-8-dodecyl alcohol, *see* dodecyl alcohol
Cisseis, 632
Cissus (Bot.), 843, 904
Cistus (Bot.), 680
Citrus (Bot.), 232, 452, 455, 459, 461, 464, 504, 508, 509, 673, 678, 771, 854, 856,

- 863, 881, 896, 912, 929, 962, 965
Ciulfina, 355
 Cixiidae, 170, 439, 443, 474, 475, **476**
Cizara ardenia (Lewin), 903, 904
 Claassen, P. W., 311
 clade, 117, 183
 Cladiopsocidae, 416
 cladistic vicariance biogeography, 187
 cladistics, 116-17, 119-20
Cladocerapis, see *Leioproctus*
Cladochorista bryani Riek, 173
 Cladochoristidae, 173, 174
 cladogenesis, 119
 cladogram, 116, 117, 118; area cladogram, 189
Cladomacra, 931, 934
 Cladonotinae, 387
 Clambidae, 559, 564, 565, 580, 601, 624, **625**, 627, 645, 649
 Clambinae, 601
Clambus, 625; *C. simsoni* Blackburn, 625
Clania, 848, 854; *C. tenuis* Rosenstock, 845, 848
 Claridge, M. F., 435, 465
Clarissa, 933
 Clark, D. P., 70, 105, 377, 391
 Clark, J., 644
 Clark, J. T., 399
 Clark, L. R., 246, 391, 448, 449
 Clarke, J. F. G., 851
 claspettes, 23
 clasping organs, 20-3, 252, 421, 705; see also gonocoxites
 classification, 109, 110, 112, 114-21, 200, 201, 203
 Clastopteridae, 443
Clatrotitan, 165, 178; *C. scullyi* (Tillyard), 164
 Clatrotitanidae, 165
 Clausen, C. P., 475, 690, 916, 927, 939
 claval furrow, 13, 433
Clavicornia, 497
Clavicornia, 565, 649
 Clavigerinae, 560, **624**
Clavigralloides, 503
 clavus: of Noctuidae, 912; of wing, 433
 claws, 11
 Clay, T., 421, 423, 424, 426, 427
 Cleal, C. J., 194
 cleaning: by other insects, 102, 561; mechanisms, 609, 611, 613, 819, 921, 939
 Cleland, J. B., 212, 218
 Clements, A. N., 744, 758
 Cleoninae, **682**
 Cleonyminae, 957, **963**, 964
 Cleptinae, 973
 cleptoparasites, 929, 942-3, 945, 973, 975, 989, 990, 991, 993, 999; see also inquilines; social parasites
Clerada, 500
 Cleradini, 439, 442, 502
 Cleridae, 530, 547, 555, 560, 563, 564, 573, 575, 577, 578, 582, 583, 594, 596, 598, **645-6**, 647
 Clerinae, **646**
 Cleroidea, 178, 552, 564, 565, **644-9**
Cletus, 504, 505
 Clevelandellidae (PROTOZOA), 324
 click mechanism, 254, 637
 climate, 246; climatic modelling, 183; effect on insect migration, 105-6, 301
 CLIMEX, 183, 246
 clines, 113
 Clinocerinae, 760
Cliomantis, 353; *C. cornuta* Giglio-Tos, 354
Clitemnestra, 991, Pl. 6
Clivina basalis Chaudoir, 610
 clivinini, 611
 cloaca, in Lepidoptera, 20
Cloeon, 282, 283, 287, 288; *C. fluviale* Ulmer, 288; *C. inscriptum* Bengtsson, 283
 clothes moth, see *Tineola bisselliella*
Clothoda longicauda Ross, 165
 Clothodidae, 165, 408
 Cloudsley-Thompson, J. L., 543
 clover, pests of, 256, 257, 471, 513, 865
 clown weevils, see *Pantorhytes*
 Clubionidae (ARANEAE), 975
Clunio, 744; *C. marinus* Haliday, 75, 76
 Clusiidae, 734, 765, **774**
 Clusioididae, see Clusiidae
 clustering methods, 115
Clydosmylus, 537
 clypeo-genal inflection, 7
 clypeus, 7
Clysiana, 873
Clystopenella, 971
 Clythiidae, see Platypezidae
Clytocosmus, 741; *C. helmsi* Skuse, 723, Pl. 5
 Clytrini, 677
Cnecosa, 654
 Cnemeplatiini, 667
Cnemoplites, 673
 Cneoglossidae, 117, 564, 632
 Cnephasiini, 873
Cnephia, 746
 Coates, D. J., 243
Coatesia, 621
 Cobben, R. H., 434, 435, 437, 481, 485, 491, 494, 496
 Cobos, A., 637
 Coccidae, 60, 182, 443, 458, **461-4**, 769, 967, 968, 987
 Coccidulinae, **658**
 Coccina, 169
Coccinella transversalis Fabricius, 657, 658, 659
 Coccinellidae, 40, 81, 232, 441, 459, 544, 547, 552, 553, 558-65 *passim*, 582, 584, 586, 588, 592, 593, 594, 595, 600, 657, **658**, 659, 948, 961, 967
 Coccinellinae, 657, **658**, 659
 Coccoidea, 25, 26, 27, 28, 40, 78, 90, 114, 167, 170, 206, 430-50 *passim*, **457-64**, 492, 511, 515, 530, 560, 563, 650, 658, 717, 829, 831, 860, 864, 868, 886, 912, 962, 963, 965, 968
Coccophagus, 966, 968
Cocotrypes dactyliperda (Fabricius), 683
Coccus hesperidum Linnaeus, 462, 463
 cochineal, 231, 442, 458, 461
 cochineal insects, see *Dactylopius*
Cochliarion, 563, 619
 Cochran, D. G., 323
 Cochylidae, see Tortricidae
 Cochylini, 873
 Cockburn, A., 457
 cockchafers, see Scarabaeidae
 cockroaches, see Blattodea
 cocoa plant, 746
 coconut palms, pests of, 690, 865
 cocoon, 54, 67, 93, 95, 228, 512, 528, 530, 535, 538, 539, 541, 559, 616, 624, 656, 677, 707, 730, 731, 746, 794, 800, 803, 828, 835-914 *passim*, 943, 949, 957, 969, 971, 973, 974, 975, 977, 978, 979, 984, 989, 999; cocoon cutters, 67, 730, 828, 904
 Cocos-Keeling Is, 634, 658
 codling moth, see *Cydia pomonella*
Codula limbipennis Macquart, Pl. 6
 Cody, M. L., 185
 Coeladinae, **893**
 Coelidiinae, **471**
Coelioxys, 993, 999
Coelocyba, 965
 Coelocybinae, **965**
 Coelometopinae, 662, 665, 666, **667**, Pl. 5
 Coelometopini, 667
Coelomomyces (FUNGI), 732
Coelopencyrtus, 968
Coelophora inaequalis (Fabricius), 658
 Coelopidae, 69, 72, 75, 727, 733, 734, 765, **768-9**, 773, 779
Coenagrion, 303; *C. lyelli* (Tillyard), 303, 306
 Coenagrionidae, 111, 162, 299-305 *passim*, **306-7**, Pl. 1
 Coenagrioninae, **306**, 307
 Coenagrionoidea, 304, **306-7**
 Coenaletidae, 258
 Coenomyiidae, see Xylophagidae
Coenosia, 780
 Coenosiniinae, **780**
Coenotes, 904; *C. eremophilae* (Lucas), 904
Coequosa, 904; *C. triangularis* (Donovan), 904
 coevolution (coevolved mutualism), 79, 82-5, 93, 441, 456
Cofana spectra (Distant), 470, 471
 Cogger, H. G., 121, 181
 Cohen, S. H., 324
 Colbo, M. H., 74, 746, 747
Colbostema, 748
 cold tolerance, 68, 69, 257
 Coleman, E., 85
Coleocoris, 502
Coleophora, 863, 864-5, 866, 867; *C. alcyonipennella* (Kollar), 865; *C. serripennella* Christoph, 865
 Coleophoridae, 832, 859, 863, **864-5**, 866, 867
 Coleoptera, 9, 10, 11, 12, 15, 22-31 *passim*, 38-44 *passim*, 49, 51, 55-84 *passim*, 88-102 *passim*, 117, 120, 133, 136, 137, **138**, 142, 144, 149, 162, 167, 171, 176, **177-8**, 179, 181, 182, 185, 194, 202-8 *passim*, 213, 215, 222, 223, 229, 232, 234, 235, 237, 257, 274, 276, 284, 314, 324, 339, 352, 377, 420, 440, 441, 516, 518, 519, 530, **543-683**, 684, 685, 687, 691, 726, 732, 747, 758, 770, 783, 784, 794, 830, 860, 929, 940, 941, 945, 946, 948, 950, 952, 954, 961-73 *passim*, 977, 979, 987, 993, 996, Pl. 4, Pl. 5, Pl. 6
 Coleoptera, 171, **176-8**
 coleopteriform (coleopteroid), 418, 433, 440, 442, 481, 485, 492, 493, 501, 502
 Coleorrhyncha, 136, 170, 171, 443, 444, 445, **479-80**
Coleotichus, 508; *C. costatus* (Fabricius), 508
Colepia, 758
 Colgan, D. J., 243
 Coliadininae, 896, **897**
 Collart, A., 762
 collection of insects, 111
 Colledge, W. R., 199, 218
 Collembola, 26, 44, 60, 63, 68, 76, 97, 125, 126, 127, 128, **129**, 142, 143, 147, 148, **153-4**, 207, 227, **252-64**, 269, 270, 339, 624, 985, 987, 991
 Colless, D. H., 113-20 *passim*, 182, 218, 377, 391, 717, 720, 733, 742, 743, 747, 749, 751, 760, 769, 780
Collessina, 965
 colleterial glands, see glands
 Colletidae, 689, 919, 921, 930, 931, 943, 993, 994, **995-6**, 997, Pl. 6
 Colletinae, **995**, 997
 colliculum, of Lepidoptera, 844
 Collin, J. E., 760
 Collins, M., 110
 Collyrinae, 945
 Colobathristidae, 435, 443, 498, **499**
Colobopyga: *C. australiensis* Deitz, 462, 464; *C. kewensis* (Newstead), 464
 Coloburiscidae, 281-8 *passim*, **289-90**, 292
 Coloburiscinae, 285
Coloburiscoides, 188, 281, 284, 288, 289-90, 292; *C. giganteus* Tillyard, 283, 289; *C. haleuticus* Eaton, 282, 283, 289; *C. munionga* (Tillyard), 289-90
Coloburiscus, 188, 289
Colon, 571, 573, 619, 620, 621
 colonial insects, see gregarious insects; social insects
 Coloninae, **621**
Colonomyia, 749
 coloration, 38-9, 40, 98-101, 299, 377; aposematic, 99, 100, 376, 377, 382, 384, 389, 398, 399, 402, 440, 561, 624, 631, 632,

- 640, 658, 668, 829, 830, 878, 897, 909, 910, 914, 927; cryptic, 94, 99, 239, 257, 313, 324, 352, 353, 355, 376, 382, 391, 397, 399, 415, 480, 497, 538, 830, 864, 869, 874, 875, 889, 890, 895, 910, 912; of Odonata, 38, 299, 302; physical colours, 38, 40; warning, 99, 100, 313, 324, 351, 353, 376, 398, 830; *see also* pigment; colour changes
- Colotrechninae, 964**
- Colotrechnus, 964**
- colour changes, 101, 353, 377; morphological, 377, 399; physiological, 302, 399; seasonal, 353, 377
- Colpocephalum: C. fragili** Denny, 426; *C. turbinatum* Denny, 427
- Colpochila, 547, 628**
- Colpoveitia, 484**
- Columbicola columbae** (Linnaeus), 424, 427
- Colydiidae, 552, 561, 565, 581, 582, 600, 602, 604, 656, 660, 661, 662, 664, 665**
- Comana, 879; C. coronae** (Fabricius), Pl. 7
- combat, 363, 375, 513, 545, 561, 770, 927, 928, 984, 998
- Comins, H. N., 104
- commensals, 87-8, 93, 284, 732; micro-organisms in gut, 58-9, 78, 94, 102, 273, 276
- Commius elegans** (Donovan), Pl. 3
- Common, I. F. B., 70, 88, 91, 107, 174, 214, 215, 223, 377, 817, 829, 834, 837, 841, 844, 864, 868, 869, 873, 874, 880, 893, 895, 900, 902, 903, 914
- common armyworm, *see Mythimna convecta*
- common brown butterfly, *see Heteronympha merope*
- Commonwealth Government of Australia, 208-9; Prickly Pear Board, 210, 212, 216; School of Public Health and Tropical Medicine (SPHTM), 218; *see also* Australian Biological Resources Study; Australian Hookworm Campaign; Australian Institute of Tropical Medicine; Australian Museum; Australian National Insect Collection; Australian Plague Locust Commission; CSIR; CSIRO
- communal behaviour, 251, 929, 989, 990, 993, 998, 1000; web, 415, 419, 851, 855, 897, 899, 902, 907-8
- communication: auditory, 50, 926-7, 986; gustatory, 986; mechanical, 986; olfactory, 986; vibrational, 313, 484; visual, 986; *see also* chemical communication; sound production; stridulation
- compatibility analysis, 118
- Compere, G., 207, 210
- Comperia, 968**
- composites (BOT.), *see* Asteraceae
- compound eyes, 6, 42, 47-8; acone, 544; apposition, 47; clear-zone, 47, 48; dichoptic, 6, 718; eucone, 544; exocone, 544; holoptic, 6, 718, 748, 755, 843; pigmentation of, 40, 248; turbinate, 279, 287, 290
- Compsocidae, 416**
- Compothespinae, 353**
- Comptosia, 758, 759; C. lateralis** (Newman), 758, 759
- computer taxonomy, 242
- Comstock, J. H., 14, 15, 723, 724
- Conchaspidae, 443, 458, 462, 464**
- Conchaspis angraeci** Cockerell, 462, 464
- Condé, B., 269
- Condocerus paludosus** Neboiss, 815
- condyle, 8
- Condylognatha, 135**
- Conganteoninae, 973**
- Congoxeninae, 692**
- Congoxenos, 692**
- Conifericoccus agathidis** Brimblecombe, 459
- conifers (BOT.), 84, 144, 194, 453, 455, 632, 932, 934
- Coniophoraceae** (FUNGI), 625
- Coniopterygidae, 25, 175-6, 513, 527-33 passim, 535**
- Coniopteryginae, 535**
- Coniopterygoidea, 531, 535**
- Coniopteryx, 535**
- Coniungopterini, 382
- conjunctival membrane, 5
- connexivum, of Hemiptera, 434
- Conocephalinae, 373, 380, 382-4**
- Conocephalini, 382**
- Conocephalus, 382; C. albescens** (Walker), 373; *C. upoluensis* (Karny), 383
- Conocoxinae, 934**
- Conoderus, 562, 566, 637**
- Conoesucidae, 787, 794-9 passim, 806, 807, 809, 812, 815**
- Conoesus, 812, 815; C. norelus** Mosely, 794, 806
- Conogethes punctiferalis** (Guenée), 889
- Conopidae, 97, 100, 734, 765, 768, 769, Pl. 6**
- Conopodea, 734, 768**
- Conops, 768, Pl. 6; C. splendidus** Kröber, 769
- Conospermum** (BOT.), 934
- Conostigmus, 939, 940**
- consensus methods, 120
- conservation of invertebrates, 110, 247
- Contarinia sorghicola** (Coquillett), 749
- continental drift, 188, 190
- Contreras, N., 388
- convergence, 114, 117, 244
- Convolvulaceae** (BOT.), 592, 677
- Conyza** (BOT.), 449
- Cook, D., 113, 561
- Cook, E. F., 748
- Cook, James, 221, 225-6, 236
- Cookson, L. J., 336
- Cooling, L. E., 199, 217, 218
- Coooloa, 380; C. propator** Rentz, 380, 381; *C. zilian* Rentz, 380
- Coooloolidae, 378, 380, 381**
- Coope, G. R., 178, 195
- Cooper, J. B., 627
- Coorilla, 714, 716; C. longictena** Dunnet and Mardon, 715
- Copholandrevus, 386**
- Copidosoma, 925, 968**
- Copiphorini, 375, 382-4
- Copland, M. J. W., 924
- copra, 646
- Coprini, 630
- Copris, 630**
- Copromorpha, 880, 881; C. lichenitis** (Turner), 880
- Copromorphidae, 832, 876, 880, 881**
- Copromorphoidea, 820, 832, 833, 846, 847, 880-1**
- Copromyza, 772, 774**
- coprophagy, *see* dung
- Coprosmia** (BOT.), 904
- Coptoclavidae, 178**
- Coptodactyla, 630**
- Coptopsyllidae, 710**
- Coptosoma, 507**
- Coptosomatidae, see** Plataspididae
- Coptotermes, 333-41 passim, 345, 346; C. acinaciformis** (Froggatt), 225, 278, 331, 336, 343, 345, 498; *C. brunneus* Gay, 278, 345; *C. frenchi* Hill, 338, 345; *C. lacteus* (Froggatt), 332, 334, 338, 339, 345; *C. michaelsoni* Silvestri, 345
- Coptotermittinae, 345**
- Coptotermoeicia, 561**
- copulation, 18, 20-23
- Coracanthella geophila** (Montrouzier), 509
- Coracina novaehollandiae** (AVES), 400
- Coracis erythrocosma** Meyrick, 860, Pl. 6
- coral: as habitat, *see* littoral insects
- Corallocoris marksae** (Woodward), 75, 485
- Coranus, 49, 496**
- Corbet, P. S., 294, 303
- corbicula, 85, 921, 1000
- Corbière-Tichané, G., 620
- Corcyra cephalonica** (Stainton), 887
- Cordaitales** (BOT.), 143, 144, 158
- Cordulegastroidea, 304**
- Cordulephya, 309; C. pygmaea** Selys, Pl. 1
- Cordulephyinae, 304, 308, 309**
- Corduliidae, 162, 295, 298, 301, 302, 304, 308, 309-10, Pl. 1**
- Corduliinae, 308, 309**
- Cordus, 561**
- Cordyceps** (FUNGI), 987
- Coreidae, 59, 229, 435-44 passim, 503-4, 505, 690, 692, 693, Pl. 3**
- Coreinae, 504**
- coremata, of Lepidoptera, 821
- Coreoidea, 440-8 passim, 499, 503-4**
- Corethrella, 115, 116, 743**
- corethrygne, of Lepidoptera, 873
- Coritaria arborea** (BOT.), 479
- Coridromius variegatus** (Montrouzier), 493
- Coriophaginae, 694**
- Coriophagus, 686, 694; C. rieki** Kinzelbach, 177, 684-9 *passim*, 694
- Corioxenidae, 685, 686, 691, 692-3**
- Corioxeninae, 692, 693**
- Corioxenos, 686; C. antestiae** Blair, 687, 689
- corium, of wing, 433
- Corixidae, 73, 171, 429, 431, 434, 435, 442, 443, 446, 488, 489**
- Corixinae, 488**
- Corixoida, 443, 445, 446, 488**
- Corneolabiini, 563**
- cornu: dorsal, 730; ventral, 730
- Cornwell, P. B., 320
- Coronado-G, L., 410
- Coronapsylla, 713, 715; C. jarvisi** (Rothschild), 715
- Coroticini, 623**
- corpura allata, 43, 50
- corpura cardiaca, 43, 50
- corpulentorium, 6
- corpus tentorii, 6
- Corrhenes, 562**
- corridors of dispersal, 184
- Corticaria: C. elongata** (Gyllenhal), 660; *C. ferruginea* Marsham, 660; *C. japonica* Reitter, 660
- Corticariinae, 657, 660**
- Corticeus, 40**
- Corticicara hirtalis** (Broun), 657, 660
- Corvidae** (AVES), 244, 426
- Corvus tasmanicus** (AVES), 426
- Corydalidae, 138, 176, 516, 517, 518, 519, 520**
- Corydalinae, 517, 519**
- Corydalis, 162**
- Corylophidae, 545, 557, 565, 580, 582, 589, 590, 591, 599, 657, 658-60**
- Corylophinae, 657, 658, 660**
- Corylophini, 660**
- Corylophodes, 657, 658**
- Corylophodini, 658, 660**
- Corynephorina, 256, 263, 264**
- Coryphistes, 391; C. ruricola** (Burmeister), 390
- Corythangela, 864**
- Coscinocera, 64, 903; C. hercules** (Miskin), 903, Pl. 8
- Coscinoptycha improbana** Meyrick, 881
- Cosmiotes synethes** (Meyrick), 865, 866
- Cosmoclostis, 885**
- Cosmodes elegans** (Donovan), 914
- Cosmopolites sordidus** (Germar), 562, 683
- Cosmopterigidae, 442, 832, 859, 865, 866, 868**
- Cosmopteriginae, 868**
- Cosmopterix, 865, 868; C. mimetis** (Meyrick), 868
- Cosmozosteria, 327; C. subzonata** (Tepper), 327
- Cossidae, 89, 223, 817, 819, 825, 829, 830, 831, 832, 870-2, 874, 948**
- Cossinae, 870**
- Cossoidea, 820, 832, 833, 846, 847, 870-2**
- Cossoninae, 681, 682, 683**
- Cossonus simsoni** Lea, 681

- Cossyphini, 667
 costa, of wing, 15
 Costa, C., 559, 642
 costal fracture, 433
 Costin, A. B., 195
 Cotana, 902
 Cothonaspis, 956
 Cothornobata, 771
 Cott, H. B., 376
 Cottier, W., 456
 cotton, pests of, 108, 442, 493, 502, 503, 504, 508, 513, 851, 864, 868, 869, 873, 914
 cotton harlequin bug, *see* *Tectocoris diophthalmus*
 cotton stainers, 442, 503, 504
 cottony cushion scale, *see* *Icerya purchasi*
 Cotulades, 661, 665
 courtship, 44, 50, 55, 91, 256, 323, 329, 352, 363, 375, 415, 484, 518, 527, 529, 545, 561, 640, 700, 731, 760, 821, 921, 927, 978, 984
 Coventry, R. J., 340
 Cowley, D. R., 797
 Cowman, A. F., 248
 Cox, J. M., 112, 461
 coxa, 11, 145
 coxa vera, 11
 coxal process, 11
 coxites, *see* gonocoxites
 Coyne, J. A., 112
 crab louse, *see* *Pthirus pubis*
 Crabroninae, 442, 990, **991**, 992
 Cracraft, J., 110, 112, 120, 182, 195, 196, 197
 Cracticidae (AVES), 89
 Craddock, E. M., 243, 396
 Craighead, F. C., 559, 565
Crama, 954
 Crambinae, **887**
 Crampton, G., 12, 725
 Crampton, G. C., 22, 717
 crane flies, *see* Tipulidae
 Craneopsyllinae, 709, 715
Craniophora, 914
 cranium, 5-7
Cranopygia, 366; *C. daemeli* (Dohrn), 367
Cranothrips, 515
 Cranston, P. S., 109, 180, 182, 196, 745, 746
Crassifoenus, 942-3
Crataegus (BOT.), 962
 Cratocentrini, 961
 Crataminae, 963
 Craw, R. C., 187, 188, 189, 192, 197
 Crawford, F. S., 210
 Crawley, M. J., 78, 79, 80
 crayfish, as predators, 314
Creiis: *C. costatus* (Froggatt), 450; *C. periculosa* (Olliff), 450
 cremaster, 828
 Cremastinae, 930, 944, **945**
 Cremastobacini, 954
Cremastobaeus, 954
Crematogaster, 84, 539, 651, 694, 777, 985, 986
 Cremifaniidae, *see* Chamaemyiidae
Cremnops, 949
Creobota coccophthora Turner, 887
Creontiades, 433, 434; *C. diluus* (Stål), 491, 493
Creophilus erythrocephalus (Fabricius), 549, 624
Crepidochetus, 771
Crepidomenus, 637
 crepitation, 374, 376, 613, 614
 Crespi, B. J., 513
Cressida cressida Fabricius, 894, 896
 Cresson, E. T., 777
 Cretaceous Period, 141, 142, 144; in Australia, 179, 194
 Cretophasmatidae, 164
Crexa, *see* *Gendua*
Cricetomys (MAMMALIA), 364
 crickets, *see* Grylloidea
 Crinopterygidae, 832, 833, 842
 Criocerinae, 561, 594, 672, 674, 675, 676, **677**
 Crisp, M. D., 196
Cristatitermes, 346
Crocantthes, 862, 865, 869; *C. prasinopsis* Meyrick, 866, 869
 crochets, of larvae, 825, 826
Crocidolomia, 889; *C. pavonana* (Fabricius), 889
Crocidosema plebejana Zeller, 871, 873
 Crocinae, **542**
Crocothemis nigrifrons (Kirby), 310
 Croizat, L., 187, 188, 189, 190
Crompus: *C. oculatus* Stål, 502; *C. opacus* Scudder, 501, 502
 crop, 56
 crops, *see* agricultural pests
 Crosaphididae, 174
Crosaphis, 174
 Crosskey, R. W., 717, 780, 782, 941, 942, 943
 Crossley, A. C., 99
Crossotarsus omnivorus Lea, 683
Crotalaria (BOT.), 909
 Crowson, R. A., 143, 176, 194, 544-65 *passim*, 607, 608, 614, 617, 625, 631, 632, 637-56 *passim*, 660, 663, 668, 672, 676, 677, 678, 684, 685, 691
Crowsoniella relicta Pace, 607
 Crozet Is., 480
 Crozier, R. H., 251
 crucifers, *see* Brassicaceae
 crumena, of Hemiptera, 430
Cruria, 913; *C. donowani* (Boisduval), 911
 crusader bug, *see* *Mictis profana*
 Crustacea, crustaceans, 12, 15, 32, 127, 143-52 *passim*, 155, 156, 293, 314, 616
Cryophila, 115, 116
 Cryphocricinae, 488
Cryptamorpha, 651, 652; *C. desjardinsi* (Guérin-Méneville), 651
Cryptarcha, 650
 Cryptarchinae, 586, 588, **650**
Cryptaspasma sordida (Turner), 873
Cryptes baccaus (Maskell), 463, 650
 Crypticini, 667
 cryptobiosis, 74
Cryptocarya (BOT.), 895
 Cryptocephalinae, 551, 556, 559, 562, 563, 578, 589, 590, 672, 674, 675, 676, **677-8**, 948
 Cryptocephalini, 675, 677-8
Cryptocephalus, 678; *C. haematodes* Boisduval, 674; *C. parenteticus* Saffrian, 677
 Cryptocera, 445, 486
 Cryptocercidae, 102, 325
Cryptocercus, 102, 133, 329, 337; *C. punctulatus* Scudder, 102
Cryptocheilus, 975, 976, 977
Cryptochetidae, 97, 735, 767, 777, **778-9**
Cryptochetum, 767, 778; *C. iceryae* (Williston), 778; *C. monophlebi* Skuse, 778
Cryptodus, 561, 628, 631
 Cryptogamia (BOT.), 376, 392, 439, 664
Cryptolaemus montrouzieri Mulsant, 563, 658
Cryptolestes, 651; *C. ferrugineus* (Stephens), 651
 cryptonephry, *see* Malpighian tubules
 Cryptophagidae, 547, 554, 555, 565, 576, 577, 601, 605, 652, **653**
 Cryptophaginae, 605
Cryptophagus, 653; *C. gibbipennis* Blackburn, 652
Cryptophasa, 863; *C. rubescens* Lewin, 861, 863
 Cryptophilidae, 654
 Cryptophilinae, 576, 605, **654**, 655, 659
Cryptophilus, 655, 654, 659; *C. integer* (Heer), 654
Cryptophlebia ombrodelta (Lower), 873-4
 cryptopleuron, 617
Cryptoptila, 873
Cryptopygus, 261
 Cryptorhamphinae, 501, **502**
Cryptorhamphus, 502
 Cryptorhynchinae, 681, **682-3**
Cryptosceneae, 535; *C. australiensis* (Enderlein), 535
Cryptostemma, 481; *C. monga* Hill, 482
Cryptostylis (BOT.), 85, 944; *C. erecta*, 85
Cryptotermes, 340, 344; *C. austrinus* Gay and Watson, 344; *C. brevis* (Walker), 338, 344; *C. cristatus* Gay and Watson, 344; *C. cynocephalus* Light, 344; *C. domesticus* (Haviland), 344; *C. dudleyi* Banks, 344; *C. gearyi* (Hill), 343; *C. primus* (Hill), 344
 cryptozoic insects, 269, 273, 278, 323, 325, 329, 357-9, 363, 376, 414, 480, 636, 931
Cryptuoperla, 317
 crystallomitin, 130
 CSIR Division of Economic Entomology, 198, 207, 208-10, 211, 214, 216, 219, 240
 CSIRO: (as author), 110, 219, 247; Division of Entomology, 211, 219, 242-3; Wildlife Survey Section, 211, 216
Ctenarytaina, 449
Ctenicellus major Raffray, 621
 ctenidiobothrium, 413
 ctenidium, 94, 490, 705
Cteniziphontes, 975
Ctenocephalides, 710; *C. canis* (Curtis), 227, 709; *C. felis* (Bouché), 227, 708, 709, 710
Ctenocolletes, 998; *C. smaragdinus* (Smith), 997
Ctenocompa, 848
 Ctenodactylini, 613
Ctenolepisma, 276, 278; *C. lineata* (Fabricius), 277; *C. longicaudata* Escherich, 19, 21, 276, 277; *C. urbana* Slabaugh, 277
Ctenomorpha chronus (Gray), 396, 397
Ctenomorphodes tessulatus (Gray), 397, 399, 400, 402, 403, 974
 Ctenopelmatinae, **945**
Ctenoplectra australica Cockerell, 999
 Ctenoplectridae, 931, 994, **998-9**
Ctenostegus, 975, 976
 Ctenostylidae, 734, 763, 770
 Ctenuchinae, 830, 877, 905, 909, **910**
 cubitus, of wing, 15, 16-17
Cuclogaster heterographus (Nitzsch), 427
 Cucujidae, 547, 553, 557, 560, 562, 565, 570, 571, 576, 586, 589, 597, 600, **651**, 652, 659, 660
 Cucujiformia, 544, 548, 550-6 *passim*, 564-5, 640, 641, **644-83**, 691
 Cucujinae, 570, 571, 586, 600, **651**, 652, 659
 Cucujoidea, 178, 547-52 *passim*, 560, 564-5, 624, 641, 644, 648, **649-60**, 672
Cucujopsis, 676
 Cucullinae, **914**
 cucumber, pests of, 658, 678, 771, 889
 cucumber moth, *see* *Diaphania indica*
Cucurbitodhis (FUNGI), 669
 Cucurbitaceae (BOT.), 79, 81, 503, 504, 508, 513, 562, 658, 678, 771, 889, 914, 999
 cucurbitacins, 79
Culana, 870; *C. australis* Walker, 871; *C. rhytiphorus* (Lower), 870
Culex, 115, 116, 744; *C. annulirostris* Skuse, 230, 233, 744; *C. australicus* Dobrotworski and Drummond, 737; *C. fatigans* Wiedemann, 74, 744; *C. quinquefasciatus* Say, 217, 218, 230
 Culicidae, 41, 44, 58, 68, 73, 74, 88, 112, 115, 116, 208, 211, 212, 217, 218, 219, 225-33 *passim*, 442, 719, 720, 721, 726-38 *passim*, **743-4**, 745, 746
 Culicinae, 90, 237, **744**
Culicinomyces (FUNGI), 732
 Culicoidea, 734
Culicoides, 227, 728, 746; *C. angularis* Lee and Reye, 738; *C. anophelis* Edwards, 746; *C. antennalis* Lee and Reye, 745; *C. brevitarsis* Kieffer, 108, 746
 Culicomorpha, 721, 730, 732, 734, 735, **742-7**
Culiseta, 744
 Culliney, T. W., 175
 Cumber, R. A., 479

- Cumming, J. M., 980
 Cummins, K. W., 284
 Cunaxidae (ACARINA), 257
 cuneus, of wing, 433
 Cunningham, A., 199, 202
 Cunningham-van Someren, G. R., 768
 cup moths, *see* Limacodidae
Cupaniopsis (BOT.), 864
 Cupedidae, 176, 178, 549, 556, 564, 567, 602, 607-8
 Cupedoidea, 178, 564
 Cupressaceae (BOT.), 680
Cupressus (BOT.), 934
 curation, 111
 Curculionidae, 67, 75, 78, 99, 101, 113, 194, 234, 235, 543, 545, 547, 555-65 *passim*, 576, 577, 579, 584, 585, 589, 590, 603, 618, 646, 656, 664, 673, 675, 678, 681, 682-3, 945, 948, 952, 961, 964, 965, 967, 970, 979, Pl. 4, Pl. 5
 Curculionoidea, 29, 30, 178, 547, 551, 552, 555, 557, 558, 560, 565, 644, 672, 678-83
 Curetinae, 899
Curis, 632
 currant borer moth, *see* *Synanthedon tipuliformis*
 Currie, G. A., 82, 700, 775
 Curtonotidae, 735, 765, 777-8
Cuspicona, 508; *C. simplex* Walker, 509
Cussolenis, 563; *C. mutabilis* (Bonvouloir), 638
 cuticle, 33-9
 cuticular (corneal) lens, 6, 47, 48, 49
 cuticulin, 33
 cutworms, *see* *Agrotis*
Cyamops, 767, 776, 777
 Cyathoceridae, 564, 608
 Cybalomiinae, 888
Cybister godeffroyi Wehnecke, 616
 Cybocephalidae, *see* Nitidulidae
 Cybocephalinae, 591, 650
Cybocephalus, 580, 649, 650
 Cycadaceae (BOT.), 144, 194, 649, 650, 654, 682, 868
Cychramptodes, 650; *C. murrayi* Reitter, 648, 650
Cychramus, 649
 Cychrini, 610, 611, 614
 Cyclidiinae, 892
Cyclochila australasiae (Donovan), 432, 467
 cyclo-morphosis, *see* polymorphism, cyclical
Cyclopodia, 786; *C. albertisii* Rondani, 786; *C. australis* Theodor, 785
 Cyclospidea, 755
 Cyclorrhapha, 42, 66, 67, 174, 689, 718-35 *passim*, 751, 759, 761-86, 956
 cyclostome Braconidae, 947, 948
Cyclotorna, 878, 879; *C. egena* Meyrick, 880; *C. monocentra* Meyrick, 876, 880
 Cyclotornidae, 97, 441, 829, 830, 831, 832, 876, 877, 878, 879-80
 Cydia: *C. metallicosma* (Lower), 874; *C. pomonella* (Linnaeus), 205, 246, 364, 874
Cydistomyia, 755
 Cydnidae, 430, 431, 437, 439, 444, 506, 507, 692, 693, 954
 Cydinae, 507
 Cyladinae, 592, 680
 Cylapinae, 442, 492
 Cylapini, 492
Cylas, 579, 592, 680; *C. formicarius elegantulus* (Summers), 680
Cyldrus, 583, 646
Cylindracheta, 393; *C. psammophila* Tindale, 374, 393
 Cylindrachetidae, 374, 378, 386, 387, 392, 393
Cylindrococcus, 461, 968; *C. spiniferus* Maskell, 463
Cylindromyia, 783
Cylindrorcytes, 393; *C. spegazzinii* Gigliot-Tos, 393
 Cylindrotominae, 741
 Cylleniinae, 759
Cymatia, 488
 Cyminae, 500, 501, 502
 Cynipidae, 81, 921, 930, 954, 955, 956
 Cynipinae, 955, 956
 Cynipoidea, 97, 175, 194, 923, 925, 930, 935, 937, 941, 954-6
 Cyperaceae (BOT.), 84, 391, 463, 502, 677, 857, 865, 873, 887, 893, 897, 965
Cyperus (BOT.), 965
 Cyphaleini, 665, 667
Cyphoda nichollsi (Womersley), 262
 Cyphoderidae, 258, 259, 262
Cyphogastra, 563, 632; *C. pistar* (Laporte and Gory), Pl. 4
Cyphoneura, 169
 Cyphonidae, *see* Scirtidae
Cyphopistes, 561; *C. descarpentriesi* Paulian, 626, 627
 cypress, *see* *Callitris*
 Cypselidae, *see* Sphaeroceridae
Cypselosoma, 771; *C. australe* D. McAlpine, 769, 771
 Cypselosomatidae, 733, 734, 766, 769, 771
Cyrotiphya, 680
 Cyrtacanthacridinae, 387, 390, 391
 Cyrtidae, *see* Acroceridae
Cyrtobagusa, 112; *C. salviniae* Calder and Sands, 234, 235, 246, 563, 682
Cyrtorhinus lividipennis Reuter, 493
 Cyrtosiinae, 759
 cysteine, 58
 cystine, 58
Cystiphora schmidti (Rübsaamen), 235, 732
Cystococcus, 457
Cystomastax, 948
Cystosoma saundersii Westwood, 431, 434, 437, 466, 467
 cytogenetics, 244-5
 cytology, 237, 244-5
 D'Abbrera, B., 904
 Dacetini, 257, 983, 985, 986
Dacne, 654
 Dacninae, 576, 605, 654, 659
Dacnodes, 366; *D. shorridgei* (Burr), 363
 Daconypha, 819, 832
Dacnusa, 948
 Dacnusiini, 732, 948
 Dacoderidae, *see* Salpingidae
 Dacoderinae, 564, 669, 670
 Dactylopiidae, 442, 443, 458, 460, 461
Dactylopius, 458, 461; *D. ceylonicus* Green, 210, 231; *D. coccus* Costa, 461; *D. opuntiae* (Cockerell), 460
Dactylopsila trivirgata (MAMMALIA), 88
 dactyls, of Orthoptera, 392
Dacus, 771; *D. (Austrodacus) cucumis* French, 771; *D. (Afrodacus) jarvisi* (Tryon); *D. (Bactrocer) tryoni* (Froggatt), 231, 241, 242, 246, 251, 726, 732, 769, 771
D. neohumeralis G. H. Hardy, 251
 daddy-long-legs, *see* Tipulidae
Daerlac tricolor Signoret, 100
 Dahlem, G. A., 731
Dahlehornia, 427
Dahlia (BOT.), 364
 Dahms, E. C., 111, 208
Daktulosphaira vitifoliai (Fitch), 455, 456-7
 Dalcerae, 832
Daldinia (FUNGI), 656
 Dallai, R., 265, 266
 Dallwitz, M. J., 123, 243
 Daly, H. V., 24, 113, 927
 Daly, J. C., 103, 104, 108, 390
 Dämel, E., 199, 204-5
 Dampier, William, 225
 damselflies, *see* Zygoptera
 Danainae, 897
Danaus, 830; *D. chrysippus* (Linnaeus), 894, 897, 898; *D. gilippus* (Cramer), 55; *D. plexippus plexippus* (Linnaeus), 107, 204, 231, 897
 Danforth, B. N., 921
 Daniels, G., 753, 755, 758, 770
 Danilevsky, M. L., 558, 672
Danima, 913; *D. banksiae* (Lewin), 906
Danthonia laevis (BOT.), 874
Dardus, 437, 479
 Darlington, C. A., 238
 Darlington, P. J., 181, 184, 185, 199, 216, 550, 564, 611
 Darwin, C., 114, 184, 188, 236, 237-8, 239, 245
 Darwin, F., 237, 238
Darwinocoris australicus Slater, 502
 Das, G. M., 139
 Dascillidae, 117, 547, 549, 562, 564, 565, 566, 569, 591, 631
 Dascilloidea, 564, 565, 625, 631, 632
Dasiops, 770
Dastarcus, 656
Dasybasis, 755
 Dasyceridae, 564
Dasycoelopa australis Malloch, 727
Dasygaster padockina (Le Guillou), 914
Dasyhelea, 88, 746
Dasyleptus, 155
Dasymiris, 493
Dasyomma, 752, 753
Dasypodia, 912
Dasyogon (BOT.), 887
 Dasyogoninae, 757, 758
Dasyrhinoessa, 779
Dasytes, 647; *D. bourgeoisi* Lea, 647
 Dasytinae, 569, 570, 646, 647
 Dasyuridae (MAMMALIA), 88, 339, 427, 708, 714
Dasyurus (MAMMALIA), 708
 data matrix, 115, 123
 Dateo, G. P., 323
Datura (BOT.), 471
 Davidson, J., 199, 212, 246
 Davies, D. A. L., 294, 305
 Davies, R. G., 3, 33, 113, 348, 927
Daviesia (BOT.), 456
 Davis, C., 405
 Davis, D. R., 825, 833, 841, 842, 844, 847, 850
 Davis, J. A., 120, 182, 635
 Davis, N. T., 488, 493, 495
 Davis, S. K., 244
 Davis, W. J., 352
 Davison, E. A., 71
 Day, M. C., 974, 979
 Day, M. F., 320, 324, 329
 de-alation, 103, 331-2, 328, 334, 950, 954, 963, 980, 983; *see also* autotomy
 De Deckker, P., 193, 195
 De Little, D. W., 556, 562, 678
 De Lotto, G., 460, 461, 464
 De Marzo, L., 616, 624
 Dean, J. C., 292, 293, 787, 797, 798, 801
 Dear, J. P., 782
 Dearn, J. M., 377, 391
 death watch beetle (*Xestobium rufillosum* Degeer), 49
 DeBach, P., 232, 245, 927
 Debenham, M. L., 746
 Decapoda, 32
Decatopseustis xanthastis (Lower), 866, 869
 DeCoursey, R. M., 438, 479
 defensive adaptations, 55-6, 79, 92-3, 98-9, 101, 102, 229, 254, 257, 322, 324, 333, 351, 352-3, 363, 371, 375, 382, 384, 398, 400, 407, 454, 467, 513, 529, 530, 538, 554, 561, 614, 636, 640, 642, 643, 650, 658, 830, 906, 909, 912, 926, 927, 929, 935, 945, 973
 defoliation, 80, 400, 459, 630, 678, 690, 831, 867, 879, 885, 887, 889, 897, 902, 904, 907, 908, 913, 935
 Deharveng, L., 260, 261
 Deinacridinae, 380
Deinelenchus, 686, 690, 693, 695; *D. aus-*

- traliensis* Perkins, 690, 695; *D. berrima-hensis* Kathirithamby, 695
- Deitz, L. L., 462, 464
- Delacampius*, 503; *D. lateralis* (Walker), 502
- Deladenus siricidicola* (NEMATODA), 234
- Delamare Deboutteville, C., 411
- Delany, M. J., 272, 273, 275, 276
- Deleatidium*, 292
- Delfinado, M. D., 717
- Delia platura* (Meigen), 780
- Delias*, 897, 898; *D. aganippe* (Donovan), 894, 897; *D. harpalyce* (Donovan), 897; *D. nigrina* (Fabricius), 897
- Deligne, J., 333
- Delomeristini, 944
- DeLong, D. M., 468
- Delopia*, 945
- Delopsis*, see *Epicypia*
- Delopterum sinuosum* Kukalová, 171
- Delphacidae, 91, 440, 442, 443, 474, **475-6**, 493, 688, 689, 690, 694, 695, 970, 972, 973
- Delphacinae, **476**
- DELTA, 123, 243
- Delta*, 979, 981
- Deltocephalinae, 438, 471, **472**
- Demarziella*, 630
- Demobrotis*, 851
- Demodex* (ACARINA): *D. brevis*, 227; *D. folliculorum*, 227
- Demoulin, G., 285
- dendrite, 42
- Dendroaeschna*, 309
- Dendrocerus*, 940
- Dendrocide* (BOT.), 499; *D. moroides*, 78
- Dendroctonus brevicornis* LeConte, 55
- dendrogram, 119
- Dendroleontini, 531, 541
- Dendrophagus australis* Erichson, 651
- Dendrothripini, 515
- Dendrothrips*, 515
- Dendy, A., 99
- dengue (dengue fever), 218, 219, 230, 732, 744
- Denis, J. R., 3, 8, 9, 131
- Denis, R., 272, 274, 275
- Denno, R. F., 78
- dens (dentes), 254
- D'Entrecasteaux expedition, 201, 236
- Dentridactylinae, **387, 393**
- Dentridactylus*, 393
- Departamento de Zoologia São Paulo, 717
- Depressa striatipennis* Malloch, 773
- Depressariidae, 832, 859, 860, 863, **864**, 866, 867
- Deraeocorinae, 491, 492, **493**
- Deraeocorini, 493
- Deraeocoris*, 492, 493; *D. signatus* (Distant), 493
- Derbidae, 439, 443, 474, 475, 477, **478**, 717
- Deretaphrus*, 656
- Dermaptera, 19, 22, 24, 31, 62, 77, 90, 93, 94, 101, 102, 132, 133, **134**, 142, **167**, 269, 320, 357, 358, **360-8**, 405, Pl. 2
- dermatitis, 228-9, 563, 624, 746
- Dermatophagoides pteronyssinus* (ACARINA), 229
- Dermelytridae, 166
- Dermestes*, 563, 584, 641, 642; *D. maculatus* Degeer, 546, 553, 559, 643
- Dermestidae, 352, 544, 546, 553, 559-65 *passim*, 568, 572, 573, 584, 595, 598, 641, **642**, 643
- Dermestinae, 598, **642**, 643
- Dermestoidea, 640
- Derodontidae, 182, 544, 546, 561, 563, 564, 565, 573, 604, 617, **641**
- Derodontoidea, 564, **641**
- Deroe, C., 561
- Derolathrinae, 582, **641**
- Derycyrtinae, 930, **932**
- Deschka, G., 858
- Desmometopa*, 780
- Desmoptera truncatipennis* Sjöstedt, 389
- Desmopterini, 389
- Desmothrips*: *D. propinquus* (Bagnall), 514; *D. reedi* Mound, 515; *D. steeleae* Mound, 512; *D. tenuicornis* (Bagnall), 512
- Dessart, P., 940, 941
- Destolmia*, 823
- Desudaba*, 476; *D. danae* (Gerstäcker), Pl. 3; *D. psittacus* Walker, 434, 475
- Desutter, L., 384
- Dethier, V. G., 825
- detritus feeders (detritivores), 284, 287, 289, 292, 293, 313, 314, 323, 345, 347, 512, 616, 624, 794, 805, 807, 816, 860, 868
- Dettrner, K., 561, 609
- Deuterodiscoeluis*, 979, 981
- Deuterophlebiidae, 734
- deuterotoky, 927
- deutocephalon, 4
- deutocerebrum, 42
- Deuve, T., 551
- devil's coach-horse, see *Creophilus erythrocephalus*
- Devonian Period, 141, 142, 143
- Dexiinae, **784**
- Diabathrariinae, **682**
- Diacamma*, 984, 985, 989; *D. australe* (Fabricius), 988
- Diachlorini, 755
- Diadocidiinae, **751**
- Diadoxus*, 632
- Diaea* (ARANEAE), 90
- diagnosis (of taxon), 114, 124
- Diakonoff, A., 857, 877
- Diakonov, D. M., 362
- Dialeurodes kirkaldyi* (Kotinsky), 452
- Diamesinae, **746**
- Diamesus*, 583, 621; *D. osculans* (Vigors), 621
- Diamma*, 978; *D. bicolor* Westwood, 978, Pl. 5
- diamond beetle, see *Chrysolopus spectabilis*
- Diamphipnoidea, 314
- diapause, 60, 64, 69-70, 74, 108, 256, 273, 282-3, 290, 303, 313, 351, 391, 396, 415, 454, 731, 793, 983
- Diaperinae, **667**
- Diaperini, 665, 667
- Diaphania indica* (Saunders), 889
- Diaphanopteroidea, 142, 143, 148, 156, **157-8**, 159
- Diaphomera femorata* (Say), 400
- Diaphonia*, 631
- Diaphorina*, 449
- Diaphorininae, **449**
- diaphragma, of Lepidoptera, 822
- Diaprepocorinae, **488**
- Diaprepocoris*, 431, 434, 442, 446, 488
- Diapria*, 950
- Diapriidae, 182, 195, 210, 339, 921, 925, 930, 949, **950**, 951, 987
- Diapriinae, **950**, 951
- Diaspididae, 113, 435, 442, 443, 457, 459, 462, 463, **464**, 968
- Diastatidae, 734, 777
- Diathema tenerum* Sinichenkova, 159
- Diathemidae, 159
- Diathetes morio* Pascoe, 681
- diatoms, 91, 284, 313, 623, 635
- Dibb, J. R., 627
- Dibezzia*, 746
- Dibrachys*, 965
- Dicamptus*, 945
- Diceratucha*, 907
- Dichentomum tinctum* Tillyard, 168
- Dichetophora*, 768, 772
- Dichomeridinae, 868
- Dichomeris*, 868, 869; *D. capnites* (Meyrick), 869; *D. ochreoviridella* (Pagenstecher), 869, Pl. 7
- Dichromodes*, 890
- dichthadiigyne, 984
- Dicondylia, **130**, 148, 150, 153, 154, 155
- Dicondylus bicolor* (Haliday in Curtis), 690
- Dicosmoecinae, 795
- dicotyledons (dicots), (BOT.), 391, 439, 452, 502, 649, 677, 893
- Dicranocentrus*, 261
- Dicranoccephalus*, 503, 504
- Dicranolaius*, 649; *D. bellulus* (Guérin-Méneville), 647; *D. villosus* (Lea), 377, 647
- Dicrostichus furcatus* (ARANEAE), 90
- Dicrotelus*, 496
- Dicteniophorus*, 638
- Dicteriastidae, 304
- Dictyochrysa*, 527, 534, 539
- Dictyonannus*, 481
- Dictyonuridae, 158
- Dictyopharidae, 443, 474, 475, 477, **478**, 695, 972
- Dictyoptera, 6, 132, 133, 134, 348
- Dictyotus caenosus* (Westwood), 508
- Dicyphini, 492, 493
- devil's coach-horse, see *Creophilus erythrocephalus*
- Dicyrtomidae, 258, 259, 263, **264**
- Didelphidae (MAMMALIA), 427
- Didymuria violescens* (Leach), 80, 243, 246, 396-403 *passim*
- Dienerella*, 660
- Dietrich, A., 199, 205
- Dieta*, 620
- Dieuches*, 502
- Digama*, 910; *D. marmorea* Butler, 910
- digestion, 53, 57, 102; extraoral, 92, 257, 637, 640, 758
- digger wasps, see Sphecinae
- Diggles, S., 199, 204, 213
- Dikraneurini, 472
- Dilaridae, 525-31 *passim*
- Dilompus*, 503; *D. robustus* Scudder, 502
- Dilophus*, 748, 749
- Dilyta*, 956
- Dimophora*, 945
- Dinapsinae, 940
- Dinarmus*, 965
- Dindymus*, 503; *D. versicolor* (Herrich-Schäffer), 502, 503
- Dineutus*, 616
- Dingle, H., 103, 104
- Dimidioridae, 444, 507, **508**
- Dinjapygidae, 270
- Dinocampus*, 948
- Dinoderinae, **642**
- Dinoderus*, 651; *D. minutus* (Fabricius), 642
- Dinopidae (ARANEAE), 90
- Dinopis* (ARANEAE), 90
- Dinothrips sumatrensis* Bagnall, 511
- Dinotoperla*, 316, 318; *D. bassae* Hynes, 313
- Dioclistus*, 758; *D. auripennis* Westwood, 758
- Diomorus*, 960
- Dionaea muscipula* (BOT.), 86
- Diopsidae, 734, 765, 770
- Diopsoidea, 734, **770**
- Dioptidae, 832, 905, 906
- Dioscoreaceae (BOT.), 677
- Diospyros ferrea* (BOT.), 886
- Diotimana undulata* (Pascoe), 673
- Dioxyna*, 771
- Diparinae, 964, **965**
- Dipetalonema reconditum* (NEMATODA), 709
- Diphaglossinae, 995
- diphenolic compound, 229, 322
- Diphlebia*, 307; *D. coerulescens* Tillyard, Pl. 1; *D. euphaeoides* Tillyard, 300, 307; *D. nymphoides* Tillyard, 298, 307
- Diphroporia*, 950, 951
- Diphucephala*, 630; *D. colaspoides* (Gyllenhal), Pl. 5
- Diphyllotomatidae, 564
- Diplacodes, 303, 310; *D. bipunctata* (Brauer), 298, 301, 302, 310; *D. haematodes* (Burmeister), 310
- Diplatyidae, 364
- Diplatys*, 363

- Diplazon*, 732; *D. laetatorius* Fabricius, 945
 Diplazontinae, **945**
Dipletrona, 790
 Diplectroninae, 802, **803**
Diplocoelus, 656; *D. fasciatus* (Macleay), 659; *D. punctatus* Lea, 655
Diplocotes, 561, 644
Diplogeomyza, 772; *D. diaphora* Hendel, 773
Diplonychus, 441; *D. eques* (Dufour), 487; *D. rusticus* (Fabricius), 487
 Diplopoda, 26, 32, 126, 127, 145, 146, 147
Diptoptera, 328; *D. punctata* (Eschscholtz), 324, 325
 Diptopterinae, 325, **329**
 Diplura, 8, 26, 44, 63, 125, 126, 127, 128, **129**, 130, 142-7 *passim*, 150, 153, **154**, 252, **269-71**
 Diprionidae, 930, 934
Diprotodon (MAMMALIA), 79
Dipsaconia, 665
 Dipseudopsidae, 795
 Dipsochoridae, 443, **481**, 482
 Dipsochoroidea, 430, 433, 434, 435, 439, 443, 445, 446, **481**
 Dipsochoromorpha, 434, 443, 445, 480, **481**
 Diptera, 3, 8-14 *passim*, 23-30 *passim*, 34, 36, 39, 40, 44, 46, 51-69 *passim*, 72-7 *passim*, 81, 82, 84, 88-101 *passim*, 109, 112, 114, 115, 119, 120, 133, 139, **140**, 142, **172-4**, 178, 179, 182, 189, 195, 205, 207, 209, 216, 219, 224, 225, 227, 229, 235, 237, 247, 248, 257, 284, 339, 364, 377, 441, 536, 556, 560, 562, 618, 621, 623, 624, 640, 671, 685, 689, 690, 693, 694, 700, 702, **717-86**, 916, 928, 929, 940, 945, 948, 949, 950, 952, 954, 956, 960-9 *passim*, 980, 987, 991, 993, Pl. 5, Pl. 6
Dipteromimus, 188
 Dipterophaginae, **694**
Dipterophagus daci Drew and Allwood, 686, 694
 diptery, 114
Dipylidium caninum (CESTODA), 425, 709
Dirce, 889
 Dirhininae, **961**
Dirhinus, 961
Dirioxa pormia (Walker), 771
Dirofilaria immitis (NEMATODA), 218
 Dirrhopinae, 947
 Dirsh, V. M., 378, 388, 389
Dischidia (BOT.), 84; *D. rafflesiana*, 84
 Discolomidae, 565, 583, 598, **656-7**
Discophlebia, 907; *D. catocalina* Felder, 907
Discothyrea, 985
 discrimen, 918
 diseases, transmission by insects, *see* vectors
 disjunction (geographic isolation), 113
 Dismorphiinae, 896
Disophrys, 949
 dispersal, 98, 103, 254, 257, 281, 453, 457, 616, 688, 689; biogeography, 184-7; by wind, 257, 306, 441, 457, 513, 514, 733, 749, 848, 870, 929, 969, 970; by trade, 340, 514; by water, 257; *see also* migration
Displotera, 582
Dissomphalus, 973
 distance (or similarity) coefficients, matrix, 115
 Disteniidae, 565, 672
 distiphallus, 727
Distocupes varians (Lea), 608
Distoleon, 534; *D. bistrigatus* (Rambur), 541
 Distoleontini, 541
 distribution, of a taxon, 180, 183-4
 Ditaxineuromorpha, 161
Ditaxis, 533
 Ditomotarsinae, **507**
 Ditomyiinae, **751**
Ditropidus, 678
Ditropinotella, 964
 Ditropinotellinae, **964**
 Ditrysia, 819, 821, 823, 824, 828, 832, 833, 837, 841, **844-914**
Ditylus, 668
 diuresis, 50; diuretic hormone, 50
 diving insects, 41, 73
Dixa, 743; *D. (Nothodixa)*, 743; *D. (Paradixa)*, 743
D. nicholsoni Tonnoir, 737, 745
 Dixidae, 734, 736, 737, 739, **743**, 745
 Dixon, A. F. G., 456
 Djajakusumah, T., 391
 Dlabola, J., 879
 Dlusskiy, G. M., 175
 DNA, 244, 248, 251
 Dobrotworsky, N. V., 199, 211, 217, 218-19, 742, 744
 Dobson, T., 769
 dobsonflies, *see* Megaloptera
Docalis, 665
 Dodd, A. P., 199, 210-11, 213, 954
 Dodd, F. P., 199, 210, 213-14, 880
Doddiella, 954
 Doddiellini, 954
Doddifoenus, 963
 dodecenylyl acetate: *cis*-8-, 47, 55; *trans*-8-, 47, 55
 dodecenylyl alcohol, *cis*-8-, 55
 dodecyl alcohol, 55
Dodonaea (BOT.), 449, 493, 508
 dog flea, *see* *Ctenocephalides canis*
 Doherty, R. L., 732, 747
 Dohle, W., 127
 Dolabellapsocidae, 416
Dolania, 279
 dolichaster, of Neuroptera, 528
 Dolichoderinae, 175, 441, 980-5 *passim*, 988, **989**
Dolichoderus, 984, 989; *D. doriae* Emery, 100; *D. scabridus* Roger, 988
Dolichocheza, 737
 Dolichopodidae, 73, 75, 90, 120, 257, 719, 720, 726-34 *passim*, 751, 753, 759, **760-1**
Dolichurus, 990
 Dolin, V. G., 178
 Dolling, W. R., 171, 503, 507
 domatia, 83, 84
 domestic pests, *see* household insects
Donacia, 73, 560, 563; *D. (Cyphogaster)*, 676
 Donaciinae, 558, 588, 595, 675, **676-7**
 Donaldson, J. F., 476, 504
 Dop, H., 841, 842
Doratifera, 228, 830, 878-9; *D. oxleyi* (Newman), 228, 879; *D. vulnerans* (Lewin), 228, 876, 879
 Doratopsyllinae, 709, **714**
 Dorcatominae, **644**
 Dorilalidae, *see* Pipunculidae
Dorilas, *see* *Pipunculus*
 Dorsett, D. A., 829
 dorsope, 923
 dorsum, of wing, 12
Doru, 368
 Doryctinae, 938, 943, 946, 947, **948**
 Dorylinae, 983, 985, **987**, 988, 989
Doryphora (BOT.), 895
Dorythrips, 515
 Douglas, J. W., 238
 Douglasiidae, 832, 847, 850, **852**, 855, 856
 Douth, H. F., 195
 Douth, R. L., 175, 970
 Downes, J. A., 720, 730
 Downes, W. L., 731
 Doyen, J. T., 660, 665, 667
 dragonflies, *see* Anisoptera
 Drake, C. J., 493, 494
 Drake, V. A., 68, 103-8 *passim*, 391
Drakiessa, 497
Drapetes, 638
 Drea, J. J., 623
Drepanacra binocula (Newman), 526, 539
 Drepanicinae, **538**
 Drepanidae, 819, 823, 832, 890, **891-2**
 Drepaninae, **892**
 Drepanoidea, 821, 832, 833, 846, **891-2**
 Drepanosiphinae, 170, 454, **456**
Drepanosiphum, 454
Drepanotermes, 336, 337, 338, 339, 340, 345-6, 561, 589; *D. columellaris* Watson and Perry, 345; *D. perniger* (Froggatt), 336, 338, 340, 346; *D. tamminensis* (Hill), 343
 Drepanoxenini, 623
Drepanoxenus, 339, 561, 589; *D. ardea* Watson, 623
Drepanura, 262
 Drew, R. A. L., 685, 694, 771
 dried fruit, pests of, 650, 679
 Drilidae, 92, 562, 564
Dromaius novaehollandiae (AVES), 427
 drone fly, *see* *Eristalis tenax*
Drosera (BOT.), 86, 88, 493; *D. peltata*, 86
Drosophila, 63, 66, 182, 240, 248, 249, 717, 723; *D. megagenys* Bock, 241; *D. melanogaster* Meigen, 53, 238, 240, 241, 245, 248, 249, 731, 948, 956; *D. notha* Bock, 241; *D. pseudoobscura* Frolova, 238
 Drosophilidae, 114, 182, 250, 735, 767, 777, **778**
 Drummond, F. H., 212
Dryadula, 851
Dryadomorpha, 472
Dryandra (BOT.), 903
 Dryinidae, 97, 175, 441, 690, 920, 921, 925, 926, 931, 950, 968, 970, **971-3**
 Dryininae, **971-2**
Dryinus, 920, 971-2
 Drymini, 501
Dryococelus australis (Montrouzier), 403-4
Dryocora, 667, 668
 Dryomyzidae, 734, 768
Dryophilodes, 644
 Dryopidae, 117, 563, 564, 575, 596, 632, 634
 Dryopoidea, 565, 632
 Dryptini, 613
Dryptops, 664
Duadicus, 507
 Duckhouse, D. A., 747
 Duckworth, W. D., 864, 875, 877
 Dudai, Y., 249
Dudgeonea, 872; *D. actinias* Turner, 872, Pl. 8
 Dudgeoneidae, 821, 832, 870, **872**, Pl. 8
 Duffels, J. P., 182, 465
 Duffy, E. A. J., 674
 Dufourinae, **784**
 Dugdale, J. S., 823, 834, 835, 846, 882, 891
Dulcimanna, 160
Duliticola, 562
 dulosis, 984
 Dumbleton, L. J., 452, 747
 Dumont d'Urville, J. S. C., 199, 201
 Duncan, M. J., 284, 287, 292
 Duncan, P. M., 163, 164, 172, 174, 175, 178, 179
Dundundra, 318
 dung: as food or habitat, 98, 225, 247, 256, 336, 345, 560, 562, 563, 618, 619, 620, 623, 627, 628, 629, 630, 682-3, 747, 748, 763, 769, 770, 772, 778, 780, 948, 956, 965
 dung beetles, *see* Scarabaeinae
 Dunnet, G. M., 68, 705, 709
 Dunstan, B., 178
 Dunstaniidae, 170
Duomyia, 770
 DuPorte, E. M., 6
 DuPraw, E. J., 119
Dura, 908
 Durai, P. S. S., 508
 Duret, J. P., 747
 dusty-wings, *see* Coniopterygidae
 Dvorák, J., 244
 Dworakowska, I., 434, 472
Dworena hyacintha (Kirkaldy), 479
 Dyar's 'law', 65, 113
 Dybas, H. S., 619
 Dyce, A. L., 747
 Dynastinae, 563, 628, 629, **630-1**
Dysdercus: *D. cingulatus* (Fabricius), 503, Pl.

- 3; *D. sidae* Montrouzier, 503
dysentery, 230
Dysmorphopiloidea elongata Evans, 169
Dystipsidera, 613
Dytiscidae, 49, 73, 92, 178, 546, 547, 550, 558, 559, 560, 561, 564, 567, 588, 591, 609, 614, 615, **616**, 618
Dytiscus, 49
(E)-9-hydroxy-2-decenoic acid, *see* hydroxy-2-decenoic acid
(E)-9-oxo-2-decenoic acid, *see* oxo-2-decenoic acid
Eadya, 948
Earias, 912, 914; *E. perhuegeli* Holloway, 911, 914; *E. vittella* (Fabricius), 914
earthworms, 97, 98, 257, 614, 616, 753, 782
earwigs, *see* Dermaptera
Eastop, V. F., 453, 455, 456
Eaton, J. L., 825
Eberhard, M. J. W., 916
Eberhard, W. G., 20, 561
Eboda exeristis Meyrick, 873
Eccritostia, 758
Eccritotarsini, 493
ecdysial line, 6, 37
ecdysial membrane, 36
ecdysis, 36-8, 50, 62, 65
ecdysone, 38, 50, 58
ecdysteroids, 61
Echidnophaga, 93, 211, 707, 709, 710, 714; *E. eyrei* Mardon and Dunnet, 706; *E. myrmecobii* Rothschild, 233, 708; *E. octotricha* Mardon and Dunnet, 707; *E. perilis* Jordan, 233
Echinophthiriidae, 69, 426, **427-8**
Echinosoma, 361, 362, 366
Echinomatinae, **366**
echolocation, 88, 909; *see also* bats
Echthrodapinae, 965
Echthrodelpax, 972
Echthromorpha, 944
Ecitoninae, 987
eclosion, 250; hormone, 38, 50
Ecnolagria grandis (Gyllenhal), 566, 662, 666
Ecnomidae, 795-801 *passim*, **803**, 804, 811
Ecnomina, 790, 803
Ecnomus, 811; *E. tillyardi* Mosely, 799, 804
ecology, theoretical, 239, 245-7
Ecphantus quadrilobus Stål, 375, 390, 391
Ectatomma, 966
Ectemnius, 991
Ectinorhynchus, 756
ectoderm, 64
Ectognatha, 143, 153, **154-78**
ectognathy, 7, 272, 275
Ectomocoris: *E. decoratus* Stål, 496, Pl. 3; *E. ornatus* Stål, Pl. 3
Ectoneura, 321
ectoparasites, 93: on insects, 96-7, 98, 264, 274, 284, 304, 377, 400, 408, 441, 614, 622, 631, 651, 656, 664, 668, 692, 732, 746, 763, 780, 830, 877, 879, 880, 925, 928, 934, 939, 943-50 *passim*, 961, 965, 968-75 *passim*, 987; on vertebrates, 93-6, 110, 211, 222, 227, 246, 364, 421-8, 439, 490, 624, 705-16, 732, 782, 785
Ectopiocephalus australis (Walker), 472
Ectopsocidae, 416, 418, **419**
Ectopsocus, 415; *E. briggsi* McLachlan, 419
ectosymbiosis, 560
Ectrephes, 561, 644
Ectrephidae, *see* Anobiidae
Ectrichodiinae, 495, **496**
Ectychini, 667
Edge, V. E., 391
Edmonds, W. D., 630
Edmunds, G. F., 132, 182, 188, 280, 284, 285
Edmunds, M., 352
Edmundsius, 188
Edosa, 850; *E. meliphanes* (Meyrick), 853
Edriobittacus, 702
Edusella, 678; *E. abdominalis* Lea, 674
Edward, D. H. D., 74, 746
Edwards, E. D., 874, 889, 892, 893, 902
Edwards, F. W., 113
Edwards, G. A., 49
Edwards, J. S., 358
Edwards, M., 68
Edwards, M. A., 123
Edwards, P. B., 78, 79, 508
Edwardsiana crataegi (Douglas), 472
Edwardsina, 720, 742, 748; *E. ferrugiana* Tonnoir, 739
Egestria taenata Pascoe, 670
Egestriomima, 671
egg, 63-5: respiration, 41, 63; anhydronic, 927; hydroptic, 927; microtype, 97, 783; pedunculate, 437, 448, 452; pods, 333, 342, 371, 376, 377, 647; rafts, 729; rosettes, 729; stalked, 63, 97, 529, 538, 539, 540, 943; shell, *see* chorion; trophic eggs, 929, 983, 985; *see also* ootheca
egg-burster, tooth, *see* hatching devices
egg-fruit, pests of, 889
egg parasites, 98, 304, 324, 352, 400, 408, 441, 509, 562, 758, 831, 925, 926, 952-4, 960, 962, 963, 965, 968, 969, 970, 973, 974
Eginiinae, *see* Phaoniinae
Egolia, 645; *E. variegata* Erichson, 646
Egoliinae, 564, 576, **645**, 646
Egyptian beetle, *see* *Blaps polychresta*
Ehretia (BOT.), 867; *E. acuminata*, 867; *E. saligna*, 867
Ehrlich, P. R., 82
Eichlin, T. D., 877
Eickwort, G. C., 562
Eidoporisminae, **536**
Eidoporis, 533; *E. pulchellus* Esben-Petersen, 536
Eidt, D. C., 638
Eisemann, C. H., 241
Eisner, T., 561, 989
ejaculatory duct, 62
Ekis, G., 555
Ekphysotermes, 346
Elacatidae, 660
Elacatis, 577, 669; *E. delusa* (Pascoe), 669, 670
Elachertus, 969
Elachista, 863, 865
Elachistidae, 832, 859, 863, **865**, 866
Elachyophthalma, 902
Elaeocarpus (BOT.), 494, 935, 965; *E. grandis*, 877
elaiosomes, 81, 82-3, 985, 987
Elampini, 973
Elaphrosyrus, 975
Elaphrothrips, 513; *E. brevicornis* (Bagnall), 101
Elapidae (REPTILIA), 183
Elasmodidae, 441, 920, 921, 931, 957, 958, 960, **968**, **969**
Elasmostethus, 507
Elasmus, 920, 960, 969
Elassogaster linearis (Walker), 770
Elateridae, 60, 117, 178, 546, 555, 556, 560-6 *passim*, 573, 576, 584, 586, 590, 591, **637-8**, 639, 646, 665, Pl. 4
Elateriformia, 117, 120, 178, 547, 548, 549, 551, 555, 559, 564, 565, **631-40**
Elaterinae, **637-8**
Elateroidea, 564, 565, 632, **636-40**, 685
Elatichrosis, 637
Elaunon, 368; *E. bipartitus* (Kirby), 367
Elcanidae, 164
Elder, R. J., 391
Eldredge, N., 110
Electrococcus, 170
Elektrophididae, 170
Elenchidae, 178, 685-93 *passim*, **694-5**
Elencholax, 695
Elenchus, 688, 690, 695; *E. tenuicornis* Kirby, 687, 688, 689, 690; *E. varleyi* Kathirithamby, 686, 688, 689, 690, 693, 695
elephant beetle, *see* *Orthorhinus cylindrirostris*
elephant lice, *see* Rhyncophthirina
elephantiasis, *see* filariasis
Elephantomyia, 719, 742
Elephastomus meraldus Carne, 627
Eleusinini, 623
Elhamma, 841
Elimus, 979
Elinostola, 848
Elipsocidae, 169, 413, 416, 418, **419-20**
Ellington, C. P., 144, 149, 510, 513
Elliott, E. A., 938
Elliott, H. J., 344, 562
Elliott, J. M., 111
Ellipsoidon, 323, 324, 328; *E. australe* (Sausure), 327; *E. magnificum* Hebard, Pl. 2
Ellipura, 126, 127, **129**, 142-50 *passim*, **153-4**
Elmidae, 42, 73, 75, 117, 558, 559, 560, 564, 569, 570, 573, 584, 588, 596, 632, 633, **634**, 639
Elminae, 573, 633, **634**
Elminthidae, *see* Elmidae
Elmomorphus, 634
Elodina, 897
Elsner, N., 376
Elvisurinae, **508**
Elythomerus elongatulus Waterhouse, 635
elytron, 12, 176, 543, 547-8
Elzinga, R. J., 631, 720
Embiobina, 954
Embiobini, 954
Embiidae, 165, 408
Embiidina (embiids), *see* Embioptera
Embioptera, 26, 31, 54, 77, 94, 101, 133, **134-5**, 142, 163, **165**, 311, 320, **405-9**, 954, 971
Embolemitidae, 931, 970, **971**, 972
Embolemus, 972
embolium, of wing, 433
Embronychidae, 408
embryology, 64, 237, 248
embryonic cuticle, 65, 350
Emden, F. I. van, 556, 618, 725
emeralds, *see* Geometrinae
Emerson, A. E., 196
Emesinae, 495, **496**
Emex (BOT.), 935
Empicoris rubromaculatus (Blackburn), 496
Empididae, 91, 120, 257, 721, 723, 726, 730-5 *passim*, 752, 753, **759-60**, 761
Empidinae, **760**
Empidoidea, 734, **759-61**
Empis, 760, 761
empodium, 11
Empusa (FUNGI), 732
Empusidae, 353
Emsley, M. G., 481
Enasiba, 561, 644
encapsulation, 62
Encarsia, 968; *E. formosa* Gahan, 452
Encaustes, 563, 654; *E. hercules* (Lea), 654
Encaustinae, **654**
Encephalartos (BOT.), 194
encephalitis, 218, 230, 732
Enchocrates glaucopsis Meyrick, 866
Encominae, 947
Encyrtus immaculatus (Montrouzier), 658, Pl. 5
Encyrtidae, 93, 441, 442, 732, 925, 930, 957, 958, **966**, **967-8**
Encyrtinae, 966, **967-8**
Encyrtoscelio, 954
Encyrtus, 967
Endacusta, 386
Endeavour (ship), 200, 201
Endecatomiidae, 564, 641
endemism, 180
Enderleiniinae, **468**
Endermaptera, 365
endite, 145
Endler, J. A., 112, 113, 184, 195
endocrine system, 50
endocuticle, 33, 36, 37

- endodont Braconidae, 947
 Endomycetales (FUNGI), 644, 683
 Endomychidae, 547, 561, 565, 580, 582, 600, 601, 605, 641, **657-8**, 659, Pl. 5
Endomycopsis (FUNGI), 560
 endoparasites: of invertebrates, 97-8, 324, 377, 408, 441, 664, 684, 687, 688, 731, 732, 749, 750, 756, 763, 768, 778, 783, 925, 928, 938-56 *passim*, 960, 961, 965-71 *passim*, 987; of vertebrates, 96, 174, 784-5
 endophallus, 22
 endophytic Odonata, 299, 303
 endopleurites, 5, 10
 Endopterygota, 16, 17, 19, 22, 23, 34, 49, 62, 65, 66, 67, 132, 133, 135, **136-40**, 142, 143, 144, 150, 151, 152, 153, 156, 165, 166, 167, 168, **171-8**, 516, 521, 525, 543, 556, 684, 685, 688, 691, 696, 705, 717, 787, 817, 916, 943
Endospermum (BOT.), 893; *E. formicarum*, 84; *E. medullosum*, 893
 endosternites, 5, 10
 endosymbiosis, 439, 560
Endotaria, 386
 endotergites, 5, 10
 endotheca, 511
Endotricha mesenterialis (Walker), 884
 Endrödi, S., 631
 Endrödy-Younga, S., 194, 625, 650
 Endromidae, 832
Endrosis sarcitrella (Linnaeus), 860
 Eneopterinae, 379, 384, 385, **386**
 Eneopterini, 386
 English, K. M. I., 756, 758
 English wasp, *see Vespa vulgaris*
Engyptatus nicoitanae (Koningsberger), 493
Enicmus, 660
 Enicocephalidae, 430, 433, 434, 435, 439, 440, 443, 480, **481**
 Enicocephalinae, **481**
 Enicocephaloidea, 431, 433, 443, 445, 446, **480-1**
 Enicocephalomorpha, 443, 445, **480-1**
Enicocolus, 733; *E. collessi* D. F. Hardy, 748-9
Enicospilus, 945
Enispa plutonis (Lucas), 912
Enithares, 488; *E. woodwardi* Lansbury, 488
Enneboeopsis, 660
Enneboeus, 660
Ennometes, 566, 635
 Ennominae, 99, **889**
Enoggera, 965
 Ensifera, 21, 134, 164, 370, 371, 373, 376, **378-87**
Ensiferothrips primus Bianchi, 515
Entedon, 969
 Entedoninae, 957, **969**
 Entiminae, 681, **682**
 Entognatha, 6, 101, **127-9**, 143, 153, **154**, 252, 265, 269
 entognathy, 127, 265, 269
Entomacis, 950
Entometa, 830, 900; *E. guttularis* (Walker), 900, 901
Entomobrya, 261
 Entomobryidae, 154, 254, 256, 258, 259, **261-2**
 Entomobryinae, **261**
 Entomobryoidea, 258, **261-3**
 entomological societies: Australian, 217, 219; N.S.W., 198, 203, 204, 205, 217, 236; Qld, 208, 216
 entomology (Australian), history of, 198-220; periods in, 198
Entomophaga grylli (FUNGI), 377
 entomophagy, 88-92
 entomophily, *see* pollination
Entomophthora muscae (FUNGI), 99
 Entomosericinae, 990
 enzymes, 53, 57, 91, 92; chitinolytic, 36; proteolytic, 36, 758
 Eocene Epoch, 141, 142, 144; in Australia, 194
Eocorona iani Tindale, 174
Eothenes intermedius (Speiser), 490
 Eodromeinae, 609
 Eoichneumonidae, 175
 Eokulojidae, 159
Eolepidopterix, 174
Eomerope, 172
 Eomeropidae, 172, 697, 699, 701
Eonaphis, 456
Eoscarta carnifex (Fabricius), Pl. 3
 Eosentomidae, 266, **267**
 Eosentomoidea, 265, **267**
Eosentomon, 266, 267; *E. australicum* Womersley, 267; *E. oceaniae* Tuxen and Imadaté, 267; *E. swani* Womersley, 266, 267; *E. westraliense* Womersley, 267; *E. womersleyi* Mocnet, 267
Eoses triassica Tindale, 174
Eotettigarcta, 170
Eoxenos, 687, 692; *E. laboulbenei* Peyerimhoff, 685
 Epacridaceae (BOT.), 194, 452, 456
 epandrium, 726
Epanogmus, 965
 epaulet, *see* tegula
 epaulette, of Lepidoptera, 818
Epermenia, 881, 882; *E. exilis* Meyrick, 882
 Epermeniidae, 832, 855, **881-2**, 888
 Epermeniinae, **882**
 Epermenioidea, 832, 833, 847, **881-2**
Ephelotermes, 346; *E. cheeli* (Mjöberg), 225, 346
 ephemeral fever, 219
 Ephemerellidae, 285, 286, 288, 291, **293**
Ephemrellina, 293; *E. (Austremrella)*, 288; *E. (A.) picta* (Riek), 291, 293
 Ephemerelloidea, 285, **293**
 Ephemeridae, 285
 ephemeroid orders, 143, 153
 Ephemeroidea, 284, 285
 Ephemeroptera, 8, 11-22 *passim*, 25, 27, 30, 39, 61, 64, 72-7 *passim*, 97, 130, 131, **132**, 142, 143, 148-56 *passim*, **159-60**, 179, 182, 188-9, 195, 209, 229, 249, 269, **279-93**, 717
Ephestia: *E. elutella* (Hübner), 887; *E. kuehniella* (Zeller), 887, 945
 Ephialtini, 944
 Ephialtittidae, 175
Ephistemus, 653
 Ephrussi, B., 248
 'Ephutomorpha', 977, 978
 Ephydriidae, 72, 723, 731, 734, 766, 773, **777**, 778
 Ephydroidea, 726, 734, **777-9**
 Epichrysomallinae, 962, **963**, 964
Epicoccus, 457
Epicoma, 908; *E. melanosticta* (Donovan), 907, 908
 Epicopeiidae, 832
 epicoxa, 145
 epicranial suture, 6-7
 epicranium, 5
Epicroesa, 857; *E. ambrosia* Meyrick, 861
 epicuticle, 33-4, 36, 37; epicuticular growth of cryptogams, 664
Epicypia, 733, 751
 epidermis, 33, 36
Epidesmia, 890; *E. chilonaria* (Herrich-Schäffer), 890
Epiechinus, 618
Epilachna, 562, 658; *E. cucurbitae* Richards, 81, 231; *E. guttatopustulata* (Fabricius), 553, 657
 Epilachninae, 560, 594, 657, **658**
Epilampra, 329
 Epilamprinae, 323, 325, **329**
 epimeron, 10
 Epimetopinae, 618
 epimorphosis, 270
Epinotia lantana Busck, 873
 epinotum, of Formicidae, 918
 Epiophlebiidae, 304
 Epipaschiinae, 823, 886, **887**
 epiphallus, 727
 epipharynx, 8
Epiphyas, 819, 823, 826, 827, 873, 874; *E. postvittana* (Walker), 231, 829, 873
 epiphysis, of Lepidoptera, 817, 819
 Epipleminae, 892, **893**
 epipleurites, 13
 epipleuron, 548
 Epipompilinae, 930, **975**, 976
Epipompilus, 975, 976
 epiproct, 19
 Epipsocetae, 413, 416
 Epipsocidae, 416, 418, **419**
 Epipyropidae, 97, 441, 690, 830, 831, 832, 876, 877, 878, **879**, 888
Epirhyssa biroi Mocsar, 944
Episcaphula, 654; *E. pictipennis* Crotch, Pl. 5
 episternum, 10
 epistoma, 718; epistomal inflection, 7
Episyntlestes, 307
Episyron, 975
Epithora dorsalis (Macleay), 672
 epitoky, 256
 Epitraninae, **961**
Epitranus, 961
Epitymbia cosmota (Meyrick), 829, 871, 873
 Epitymbiini, 873
 epizootics, 108, 709
 Epyrinae, **973**
 Epyrini, 973
Epyris, 973
Equus caballus, *see* mammals: horse
 Erasipteridae, 161
Erasipteron larischii Pruvost, 161
Erechthias, 851; *E. acontistes* Meyrick, 853; *E. mystacinella* (Walker), 851
 Erechthiinae, **850-1**
 Eremaean zone, 196
 Eremiaphilidae, 353
Eremocitus (BOT.), 449, 962, 967
Eremophila (BOT.), 904, 994
Eressa, 910
Eretes australis (Erichson), 616
Eretmocera, 870; *E. dioctis* (Meyrick), 870
Eretmocerus, 968
Erga longitudinalis (Westwood), 440-1, 508
 ergatogyne (ergatoid), 982, 983-4
 Eriaporinae, 957
Eribotes, 508
 Ericaceae (BOT.), 456
 Erichson, W. F., 181, 202
 Erichson, J., 731
 Erichson, R., 88
Ericmodes, 649; *E. australis* Grouvelle, 648, 649
Eriocereus martinii (BOT.), 442, 461
 Eriococcidae, 81, 82, 222, 442, 443, 457, 459, 460, **461**, 462, 463, 962, 964, 968
Eriococcus, 461, 860, 887; *E. coriaceus* (Maskell), 461; *E. ironsidei* Williams, 460, 461; *E. orariensis* Hoy, 461
 Eriocottidae, 832, 847, **848**, 849, 853
Eriocrania, 826
 Eriocraniidae, 140, 819, 825, 826, 829, 832, 833, 837
 Eriocranioidea, 832
 Eriopterini, 742
Eriosoma lanigerum (Hausmann), 209, 455, 456, 851
 Erihniinae, **682**
Eristalis, 763; *E. tenax* (Linnaeus), 763, 764
 Ermisch, K., 663
Ernobius mollis (Linnaeus), 644
 Ernst, E., 330
 Ernst, H. P., 377
Erodium (BOT.), 889
Eroschema, 673; *E. poweri* Pascoe, Pl. 6
 Erotolepsiinae, **965**
 Erotylidae, 563, 565, 576, 579, 584, 595, 598, 605, **654**, 655, 659, 952, Pl. 5

- Erwin, T. L., 110, 111, 548, 614
 Erysiphales (FUNGI), 658
 Erythraeidae (ACARINA), 98, 274, 377, 400
Escala, 321, 328
 Español, F., 644
 Essig, E. O., 400
 Estabrook, G. F., 118
 esters, 229
 Etheridge, R., 179
Ethmia, 865, 867; *E. clytodoxa* Turner, 867;
E. heliomela Lower, 867; *E. hemadelpha*
 (Lower), 867; *E. sphaerosticha* (Meyrick),
 866, 867; *E. thoraea* Meyrick, 867
 Ethmiidae, 832, 860, 865, 866, **867**
Ethochorema brunneum (Mosely), 788
Etiella, 887; *E. hehrrii* Zeller, 887
Euacanthella, 470
 Euacanthellinae, **470**
 Euaesthetinae, **622**
Euander lacertosus (Erichson), 500, 501
Euaresta bullans (Wiedemann), 771
Eublackburniella, 619, 620, 621
Eublema, 912; *E. dimidialis* (Fabricius), 912
Euborellia annulipes (Lucas), 363, 367
 Eubriinae, **635**
 Eucaenidae, 150
Eucalyptus (BOT.), 79-81, 82, 89, 180, 181,
 194, 222, 226, 340, 342, 343, 344, 384,
 391, 399, 400, 442, 448, 449, 450, 459,
 461, 464, 465, 468, 470, 471, 473, 479,
 493, 494, 503, 504, 508, 509, 515, 536,
 539, 563, 601, 630, 643, 644, 650, 653,
 673, 677, 678, 680, 682, 775, 777, 831,
 840-44 *passim*, 848, 850, 852, 854, 860,
 862, 863, 864, 869, 870, 873, 877, 879,
 881, 886, 887, 889, 890, 899, 900, 902,
 904, 907, 908, 910, 913, 935, 939, 945,
 952, 956, 962, 964, 965, 968, 969, 980,
 987, 990, 994; *E. bicostata*, 78; *E. camald-*
ulensis, 223, 228; *E. delegatensis*, 400; *E.*
globulus, 494; *E. grandis*, 223, 873; *E.*
marginata, 78, 80, 181, 844; *E. micrantha*,
 852; *E. pauciflora*, 852; *E. radiata*, 80; *E.*
regnans, 400
Eucalyptus oils, 935
Euceraphis, 454
 Eucerotinae, 943, **945**
 Eucharitidae, 925, 928, 930, 957, 959, **965-6**,
 987
 Eucharitinae, **966**
Euchauliodes distinctus Riek, 173
Euchaulioidae, 173, 176
Euchromia, 910; *E. creusa* (Linnaeus), 910,
 Pl. 8
 Euchromiinae, *see* Ctenuchinae
 Eucinetidae, 547, 564, 565, 570, 601, **624-5**
 Eucinetiformia, 564, 565, **624-5**
 Eucinetoidae, 117, 546, 564, **624-5**
Eucinetus, 625
Euclarkia, 561, 581
Euclimacia, 538
 Eucnemidae, 29, 117, 550, 558, 559, 564, 573,
 584, 585, 587, **637**, 638, 949
 Eucneminae, 584
'Eucoila' occipitalis Kerrich, 956
 Eucoilidae, 930, 954, 955, **956**
 Euconnini, 621
Euconnus, 621
Euconocephalus, 22
Eucorethra, 115, 116
 Eucosmini, 873-4
Eucryptogona, 849; *E. trichobathra* Lower,
 848, 853
Eudalia macleayi Bates, 549, 557
 Euderinae, 960, **969**
Euderus, 960, 969
Eudiscoelius, 979
Eudocima, 912
Eudorylas, 763, 764
Eufairmairia: *E. fraternus* Distant, 473; *E.*
giganticus (Goding), 473
Eufoenus, 942, 943
Eufrenchia falcata (Walker), 473
Eugania, 968
Eugenia (BOT.), 969, 994
 Eugeopteridae, 161
Eugeropion lunatum Riek, 161
 Euglenidae, *see* Aderidae
 Euglossinae, 927, 1000
 Eugregarinida (PROTOZOA), 408
 Euheteroptera, 480
 Euholognatha, 314
Eukoebelae, 963
 Eulichadidae, 117, 564, 632
 Eulophidae, 92, 441, 442, 513, 921, 930, 931,
 957, 959, 960, **968-9**
 Eulophinae, 960, **969**
Euloxia, 891
Eumanota, 751
Eumargarodes laingi Jakubski, 459
 Eumastacidae, 376, 378, **387-8**, 948, Pl. 2
 Eumastacoidea, 378, **387-8**
 Eumecoptera, 701
Eumenes, 979
 Eumeninae, 92, 690, 691, 695, 943, 945, 961,
 973, **979-80**, 981
Eumenotes obscurus Westwood, 508
Eumerus, 763
 Eumolpinae, 562, 563, 595, 672, 674, 676,
678, Pl. 5
Eumatalis titana (Thomson), 646
 Eunotinae, **965**
Eunotoperla, 313, 314, 318
Euodia (BOT.), 896
Euoniticellus, 630
Euonymus (BOT.), 676
Euops, 579, 680; *E. falcata* (Guérin-
 Méneville), 681
 Euparaginatae, 979
Eupatorium adenophorum (BOT.), 771
 Eupelmidae, 920, 930, 957, 958, 963, **966-7**
 Eupelminae, 957, 966, **967**
Eupelmus, 966, 967
 Euphaeidae, 304
*Euphania*s, 623
 Euphorbiaceae (BOT.), 456, 503, 897
 Euphorinae, 947, **948**
Euphyia, 891
 euplantulae, 11
 Euplectinae, **624**
Euplectrus, 957, 960, 969
Euploea, 830, 897, 898; *E. core* (Cramer), 897
Eupoecila australasiae (Donovan), 631, Pl. 4
Eupolemus, 507
Euporismus albatrox Tillyard, 536
Euproctis, 908, 912; *E. edwardsii* (Newman),
 228, 830, 907, 908; *E. lucifuga* (Lucas),
 908; *E. paradoxa* (Butler), 908
Euprosopia, 770; *E. tenuicornis* Macquart,
 769
Eupselia, 864; *E. satrapella* Meyrick, 864
Eupsenella, 972, 973
Eupterote, 902; *E. expansa* (Lucas), 901, 902
 Eupterotidae, 228, 830, 831, 832, 899, **900-2**
Eurema, 897; *E. hecabe* (Linnaeus), 894, 897;
E. laeta (Hewitson), 829; *E. smilax* (Dono-
 van), 897
Eurhamphus fasciculatus Shuckard, 682, Pl. 4
 Eurhynchinae, 579, **680**
Eurhynchus, 680; *E. laevior* (Kirby), 553, 566
Eurinopsyche: *E. arborea* Kirkaldy, 476; *E.*
obscurata (Fabricius), 478
Eurispia, 677; *E. howitti* Baly, 674
*Eurocrypha thanatochlamy*s Kirkaldy, 492
 European house borer, *see* *Hylotrupes bajulus*
 European rabbit flea, *see* *Spilopsyllus cuniculi*
 European wasp, *see* *Vespa germanica*
Eurotocus, 768
Euryaulax carnifex (Fabricius), 468
 Eurybatinae, **771**
 Eurybrachyidae, 437, 443, 475, 478, **479**, 690,
 694, 695, 968, Pl. 3
Eurycantha, 403
 Eurycanthinae, **403-4**
 Eurychoromyiidae, 680, 947, 948, 959
Eurycnema goliath (Gray), 397, 398, 402
 Eurygeniinae, 602, 670, **671**
Euryglossa, 689, 996; *E. depressa* Smith, 997
Euryglossina, 996
 Euryglossinae, 994, **995-6**, 997
Eurygryllodes, 386
 Euryinae, 928, 933, **935**
Euryischia, 968
Eurymela, 473; *E. fenestrata* Lepelletier and
 Serville, 470, 472, 780
 Eurymelidae, 97, 432, 441, 442, 443, 468,
 469, 470, 472, **473**, 879, 880, Pl. 3
Eurymelops, 473; *E. bicolor* (Burmeister), Pl.
 3
Eurynassa australis (Boisduval), 223, 673
Euryptychus porosus (Lea), 638
 Eurys, 935
Euryscaphus waterhousei Macleay, 614
Eurysticta, 307
Eurytoma, 960, 962
 Eurytomidae, 929, 930, 957, 959, 960, **961-2**
 Eurytominae, 960, **962**
 eurytopic species, 182
Eusandalum, 963, 967
 Euscelini, 472
Euschemon, 893, 896; *E. rafflesia* (Macleay),
 893, Pl. 8
Euschizus internatus (Pascoe), 681
 eusociality, *see* social insects
 eusternum, 10
Eusthenia, 313, 315, 316
 Eustheniidae, 64, 182, 311, 312, 313, 314,
315, 316, 317, 318
 Eustheniinae, **315**
 Eusthenioidea, 314
Eustrephus (BOT.), 677
 Eustrophinae, 563
Eusynthemis, 310
Eutanyderus, 742; *E. oreonympha* Alexander,
 743; *E. wilsoni* Alexander, 727, 737
 Euteliinae, **912-13**
Eutermicola, 561
Euthorybeta, 876
Euthrausta oxyprora (Turner), 883
 Euthyplociidae, 285
 Eutrichosomatinae, **965**
Eutrichosomella, 968
Eutryonia monstifer (Walker), 473
 Euxenoperfidae, 163
 Euxestinae, 581, 603, **656**
Euxestus, 656
Euzosteria, 323
 Evalljapygidae, 270
Evania, 942
 Evaniidae, 930, **941**, 942
 Evanioidea, 97, 175, 930, 935, 936, **941-3**
 Evans, F., 471
 Evans, H. E., 175, 251, 916, 927, 973, 975,
 976
 Evans, J. W., 170, 178, 181, 182, 209, 429,
 465-73 *passim*, 479, 480, 703, 780
 Evans, M. E. G., 546, 554, 555, 609, 637, 653
 Evenhuis, H. H., 956
 Evenhuis, N. L., 717, 759
 Evergestinae, **889**
 Everist, S. L., 78
 evolution: of insects, 141-79, 242; of sociality,
 337
 evolutionary systematics, 118-19
 evolutionary theory, 237, 239, 244-5
Exaieta spinigera (Wiedemann), 754, 755
Exallonyx, 952; *E. trifoveatus* Kieffer, 952
Exechia, 739
Exeirus, 991; *E. lateritius* Shuckard, 992, Pl. 5
Exeretonevra, 733, 752, 755
 exite, 12, 145
 Exley, E. M., 996, 998
exo-brevicomis, *see* brevicomin
Exocarpus (BOT.), 851, 900, 902; *E. cupressi-*
formis, 877, 882
 exocrine glands, 53-5
 exocuticle, 33, 34, 36, 37
 exodont mandibles, 680, 947, 948, 959
Exoneura, 968, 999, 1000; *E. bicolor*

- Smith, 997
 exophytic Odonata, 300, 303
 Exoporia, 819, 823-4, 828, 832, 833, **837-41**
Exoprosopa, 759
 Exoprosopinae, **759**
 Exopterygota, 34, 47, 64, 65, 66, 67, 311, 320, 330, 348, 357, 360, 369, 394, 405, 410, 412, 421, 429, 510, 624, 688
 expanding earth hypothesis, 191
 exploration of Australia: English, 200, 201, 202; French, 201; overland, 202
Extatosoma tatarum (Macleay), 396, 397, 398, 401-2
 eye, *see* compound eye
 eye-bridge, 719
 eye-cap, 817
 Eyles, A. C., 502
 Eyrean zone, 196
- Fabaceae (BOT.), 81, 455, 456, 503, 587, 677, 854, 893, 896, 897, 899, 967, 994
 Fabricius, J. C., 198, 200, 201, 225, 226, 236
 face, 7
 facets, of eye, 6
 facialia, of Diptera, 718
 faeces, used in: defence, 561; egg case, 551, 556; larval case, 677-8; larval covering, 700, 840, 864, 907; pupal case, 559, 678, 851
 Fagaceae (BOT.), 456
 Faith, D. P., 116, 120
 Faithfull, M. J., 703
Falco cenchroides (AVES), 422
 Falconiformes (AVES), 427
 false wireworms, *see* Tenebrionidae
 family, 109; family group, 121, 122
Fannia: F. albitalars Stein, 733; *F. canicularis* (Linnaeus), 780
 Fanniidae, 733, 735, 764, 768, **780**
 Faroninae, **624**
 Faronini, 591
 Farris, J. S., 110, 118, 120
 Farrow, R. A., 68, 103-8 *passim*, 377, 391, 392, 647
 fastigium, 369
 fat body, 59-60
 fatty acids, 58
 faunistics, 180
 Fauriellidae, 514
 Faustini, D. L., 551, 561
 feathers, as food, 59, 94, 424, 642, 850
 Fedoseeva, E. B., 175
 Feeny, P. P., 79
 Fehrenbach, H., 825
Felicola subrostratus (Burmeister), 427
Felisacus glabratus (Motschulsky), 491, 493
 Felsenstein, J., 118, 120
 felt lines, 977
 femoral lines, 546
 femur, 11, 49, 145
 Fennah, R. G., 170, 432, 476, 478, 479
 fennel, pests of, 453
 Fenner, F., 211, 709, 732, 744
 Fenton, M. B., 830
Fergusobia (NEMATODA), 82, 775
 Ferguson, D. C., 908
Fergusonina, 82, 775
 Fergusoniniidae, 734, 766, 774, **775**
 Fergusson, N. D. M., 924, 941, 954
 ferns, 77, 144, 194, 439, 493, 512, 678, 682, 777; tree ferns, 649, 665, 887, 934, 935, 985
 Ferrar, P., 717, 731, 761, 779, 780
 Ferreira, A., 388
Ferreola, 975; *F. handschini* (Haupt), 975
 Ferris, G. F., 421, 423, 461, 464, 490
 fertilisation, 63
 fibroin, 53
 fibula, 14
Ficus (BOT.), 82, 226, 449, 452, 503, 513, 673, 772, 863, 877, 878, 897, 902, 910, 926, 962, 963; *F. coronata*, 880; *F. macrophylla*, 910
 Fideiinae (Fideiidae), 999
 Field, K. G., 114
 Figitidae, 530, 921, 930, 954, 955, **956**
 Figitinae, 955, **956**
 figs, *see* *Ficus*
Figulus, 626
 filariasis (Filarioidea: NEMATODA), 217-18, 230, 709, 732, 744, 746, 755
 file (stridulatory), 49, 373
 Filshie, B. K., 289, 472, 473
 filter bridges, in dispersal, 184
 filter chamber (alimentary), 57, 199
 filter feeders, 284, 285, 289, 624, 731, 743, 794, 803
 Fiori, G., 647
 fire, effect on insects, 353, 399-400
 fire ant, *see* *Solenopsis geminata*
 fire beetle, *see* *Merimna atrata*
 fireflies, *see* Lampyridae
 Fischer, M., 948
 fish, 88, 91, 257, 284, 285, 304, 314, 442, 486, 487, 519, 562, 616, 647, 732, 743, 780; eggs, 314, 442, 794; rifle fish, 88, 89; salmonids, 314; trout, 304, 314, 519, 794
 Fisher, R. A., 239
 Fitt, G. P., 241, 242, 251
 Fitton, M. G., 945
 Fitzgerald, R. D., 237
 Fjellberg, A., 252, 259
Flabellolaius, 649
 flagellates (PROTOZOA), 57, 58, 59, 102, 329, 336, 337, 732
 flagellomeres, 7
 flagellum: of antenna, 7, 44; of genitalia, 551
 Flanders, S. E., 461
 flat bugs, *see* Aradidae
 Flatidae, 443, 474, 475, 477, **478-9**, 690, 694, 695, 971, 972, Pl. 3
 flavonoids, 40
 flea beetles, *see* Alticini
 fleas, *see* Siphonaptera
 flesh flies, *see* Sarcophagidae
 Fletcher, B. S., 107, 241
 Fletcher, J. J., 201, 203
 Fletcher, M. J., 429, 467, 468, 469, 474, 478, 479
 Fletcher, T. B., 664
Fletcheriana, 170; *F. triassica* Evans, 169
 flexion-lines, in wing, 13
 flies, *see* Diptera
 flight, 13-14, 35, 52-3, 104; muscles, 13, 39, 43, 51, 52-3; *see also* aptery; brachyptery; microptery
 flight nutrition layer, 105
 flightlessness, 392, 623, 626, 673
 Flinders, Matthew, 202
Flindersia schottiana (BOT.), 890
 Flood, J. M., 223, 340
Floracoccus, 461
 floral oils, as food, 936, 993, 999
 floristics, 180
 flour beetles, *see* *Tribolium*
 flowerbugs, *see* Anthoridae
 flowers: as food, 364, 382, 384, 512, 513, 515, 649, 672, 675, 678, 771, 830, 842, 844, 856, 860, 862, 865, 873, 877, 880, 881, 882, 883, 885, 887, 891, 899, 910, 914; visitors to, 353, 618, 640, 642, 646, 647, 650, 663, 664, 668, 669, 672, 673, 700, 746, 753, 758, 760, 763, 768, 771, 773, 860, 877, 893, 925, 926, 935, 941, 943, 961, 977-8, 980, 993-1000 *passim*; *see also* nectar; pollen
 flying-foxes, *see* *Pteropus*
 fold-lines, in wing, 13, 550
Folsomia candida Willem, 254, 256, 257
Folsomides, 261
Folsomotoma, 253, 261; *F. bioculata* (Womersley), 255, 261
 fontanelle, 333
 food storage, by insects, 70-1
 foot-spinners, *see* Embioptera
 Forbes, W. T. M., 548, 549, 550, 632, 636, 902
 forceps, 270, 280 (gonostyles), 361, 363, 682
Forcipomyia, 732, 746; *F. fuliginosa* (Meigen), 98
 Ford, E. J., 644
 Forde, Helena, *see* Scott, Helena
 fore gut, 56
 foresters, *see* Zygaenidae
 forestry, pests of, 80, 89, 340, 342, 344, 400, 449, 458, 459, 494, 562, 630, 673, 678, 682, 683, 775, 831, 844, 879, 885, 889, 900, 902, 907, 913, 929, 932, 935, 987
 Forey, P. L., 118
Forficula, 368; *F. auricularia* Linnaeus, 361, 362, 363, 364, 368
 Forficulidae, 361, 362, 364, 366, **367-8**
 Forficulina, 167, 360-5 *passim*
 Forficulinae, **368**
 Forficuloidea, 364, 365, **367-8**
 formic acid, 55, 906, 925
Formica, 55
 Formicidae, 30, 46, 70, 81, 82-4, 85-93 *passim*, 100, 103, 113, 175, 182, 185, 186, 221-9 *passim*, 237, 257, 262, 270, 276, 278, 333, 339, 352, 353, 376, 377, 386, 400, 402, 407, 415, 440, 441, 449, 452, 454, 456, 457, 472, 473, 476, 481, 491, 493, 496, 504, 530, 539, 560-1, 613, 614, 618-24 *passim*, 631, 642, 644, 650, 651, 669, 688, 690, 694, 744, 763, 768, 777, 782, 829, 830, 848, 877, 879, 880, 887-8, 899, 917, 918, 921-31 *passim*, 936, 940, 950, 961, 965-6, 967, 971, 973, 974, **980-9**, 1000, Pl. 5
 Formicinae, 175, 441, 980-8 *passim*, **989**
Formicomus, 671
Formicosepsis, 771
Formosia speciosa (Erichson), Pl. 5
 Fornax, 637
 Forsyth, D. J., 609
 Forsythe, T. G., 554, 609
 fossils, 118, 194-6; insects, 125-40 *passim*, 140-79
 fossorial insects, 284, 288, 292, 309, 323, 325, 328, 329, 363, 376, 380, 381, 384, 386, 392, 393, 431, 547, 614, 620, 623, 627, 629, 630, 780, 782, 921, 923, 929, 943, 974, 975, 977, 978, 979, 990, 991, 993
 fossula spongiosa, of Hemiptera, 430-1, 495
 Foster, G. G., 241, 245
 Foster, W. C., 202
 fovea, of Lepidoptera wing, 889
 Fox, K. J., 107
 Fox, L. R., 79, 80
 Fracker, S. B., 826
 Fraenkel, G., 732
 Francillon, J., 202
 Franciscolo, M. E., 672
Francisella (BACTERIA), 709
 Francke-Grosmann, H., 560, 644
 François, J., 129, 265
 Frank, J. H., 559, 563, 624
 Franki, G. T., 215
Frankliniella schultzei (Trybom), 513
 Franks, N. R., 989
 Franz, H., 621
 Franz, J., 669
 Franzmann, B. A., 677
 Fraser, F. C., 294, 297, 305, 310
Fraus, 839, 840; *F. fusca* (Lucas), 840; *F. orientalis* Nielsen and Kristensen, 836, 840; *F. polyspila* (Meyrick), 836, 840; *F. simulans* Walker, 840
Fraxinus (BOT.), 449
 Freeman, M., 391
 Freeman, P., 563
 Freidberg, A., 777
 Freitag, R., 614
 Frenata, *see* Heteroneura
 French, Charles, Jr, 199, 205, 207
 French, Charles, Snr, 198, 199, 205, 206, 207, 211, 215

- French, J. R. J., 339
Frenchia, 461
 frenulum, 14, 527, 698, 821
 Freude, H., 664
Friesea, 257, 260; *F. tilbrooki* Wise, 253, 254
 Frieseinae, 260
 Frisch, K. von, 91, 249
 Frison, T. H., 314
 Frith, H. J., 89
 Froeschner, R. C., 497
 Froggatt, J. L., 217
 Froggatt, W. W., xiii, 92, 199, 205-6, 211, 217, 236, 459, 464, 618, 646, 674
Froggattia olivinia Froggatt, 493-4
Froggattina australis (Walker), 391, Pl. 2
Froggattisca, 541
Froggattoides typicus (Distant), 466, 467
 froghoppers, *see* Cercopoidea
 frogs, *see* Anura
 frons, 7
 frontal plate, 6
 frontalin, 55
 fronto-clypeal inflection, 7
 fronto-genal inflection, 7
 frontoclypeus, 5
 fruit, *see* orchard pests
 fruit flies, *see* Tephritidae
 fruit-spotting bugs, *see* *Amblypelta*
 fruit trees, fruit, *see* orchard pests
Fucellia, 780
 Fujientomidae, 267
 Fukuda, A., 657
 fulcalare (fulcalaria), 13, 148
 fulcrum, 253, 269
 Fulgoridae, 434, 443, 474, 475, 476-8, 690, 694, 695, 971, Pl. 3
Fulgoridicida, 968
 Fulgoridiidae, 170
 Fulgoroidea, 25, 168, 170, 429-46 *passim*, 473, 474-9, 690, 879, 953
 Fulgoromorpha, 170, 443, 445, 473-9
Fulica atra (AVES), 427
 Fuller, C., 464
 Fuller, M. E., 747, 762, 782
 Fuller's rose weevil, *see* *Asynonychus cervinus*
 fultella, of Diptera, 770
 futura, of Lepidoptera, 822
 Fulviini, 492
Fulvius, 492
 fungi, 284, 314, 340, 344, 608; as food, 77, 260, 266, 336, 411, 415, 478, 497, 512, 513, 515, 560, 619, 620, 622, 623, 625, 627, 637, 640, 641, 644, 645, 649, 650, 651, 653, 654, 656-7, 658, 660, 662, 664, 665, 668, 669, 679, 682, 683, 742, 747, 749, 750, 768, 770, 778, 780, 849, 850, 851, 868, 929, 934, *see also* mycetophagy; as habitat, 646, 654, 663, 762, 770, 772, 777, 948, 950, 969, 973; cultivation by insects, 59, 340, 345, 683; introduced by ovipositing female, 59, 233-4, 560, 644, 683, 749, 932; metabolites, 234; pathogenic, 81, 98, 99, 257, 363, 377, 415, 441, 513, 562, 732, 929, 987; symbiotic, 57, 58, 59, 439, 560, 928, 929, 932, 956
 Fungivoridae, *see* Mycetophilidae
 fungus gnats, *see* Mycetophilidae
 fungus moths, *see* Scardiinae
 funicle, of antenna, 916
 funiculus, of Formicidae, 917
 furca, 5, 10, 20; of Collembola, 253, 254
 furcula: of Collembola, 253; of Hymenoptera, 924
 Furness, G. O., 461
 furniture, pests of, 344, 563, 642, 644
 furniture beetle, *see* *Anobium punctatum*
 Furth, D. G., 678
 fustis, of Thysanoptera, 511
 Futuyama, D. J., 112, 113
 Gaedike, R., 882
Gahnia (BOT.), 893, 897
Gahus, 945
 Galacticidae, 832, 847, 851, 853
Galbites, 637
 galea, 8
 Galerucinae, 561, 584, 592, 593, 595, 672-7 *passim*, 678, Pl. 5
 Galerucini, 674
 Galet, P., 457
 Galewski, K., 616
 Galil, B. S., 400
 gall-forming insects, 81-2: Coleoptera, 82, 632, 672, 682; Diptera, 81, 82, 235, 749, 771, 775; Hemiptera, 81-2, 439, 448-50, 455, 456, 457, 461, 464, 494; Hymenoptera, 81, 82, 928, 929, 930, 934, 935, 954, 956, 961-2, 963, 965, 967; Lepidoptera, 82, 830, 842, 852, 865, 868, 883; Thysanoptera, 82, 513, 515; *see also* galls
 gall midges, *see* Cecidomyiidae
 gall-tunnelling insects, 649, 851, 852, 860, 873, 876, 877, 880, 881, 886, 887
Gallaba, 906
 Gallard, L., 530
Galleria, 825, 829; *G. mellonella* (Linnaeus), 887
 Galleriinae, 887
Gallinococcus, 461
Galloisiana, 358, 359; *G. nipponensis* Caudell and Klug, 358, 359
 Galloway, I. D., 954
 galls: inquilines and parasites, 649, 653, 749, 860, 945, 948, 952, 954, 956, 961-2, 963, 964, 965, 967, 968, 969
Gallus gallus, *see* birds: fowls
 Gama, M. M. da, 261
 Gama Assalino, M. M. da, 261
Gambusia (OSTEICHTHYES), 732
 gamergate, 984
 Gamlin, L., 103
Ganaspis, 956
 Ganglbauer, L., 565
 ganglia, 42, 43, 50
Ganyme, 665
 Garcia Aldrete, A. N., 416
 Garcia-Bellido, A., 248
 garden weevil, *see* *Phlyctinus callosus*
 Gardner, C. A., 81
 Gardner, J. A., 632
 Gardner, J. C. M., 614, 618, 637, 680, 682
Garinjuga, 292; *G. maryannae* Campbell and Suter, 292
Garrha, 860, 867; *G. carnea* (Zeller), 860
 gaseous exchange, 39-42
 Gassner, G., 140
 gaster, 923, 980
 Gasterophilidae, 732, 735, 763, 781, 784
Gasterophilus: *G. haemorrhoidalis* (Linnaeus), 784; *G. intestinalis* Degeer, 781, 784; *G. nasalis* (Linnaeus), 784
 Gasteruptiidae, 921, 930, 938, 941, 942-3
 Gasteruptiinae, 942, 943
Gasteruption, 942, 943
Gastridiota, 902; *G. adoxima* (Turner), 901, 902
Gastrimargus, 163, 389, 391; *G. musicus* (Fabricius), 4, 7, 11, 20, 22, 377, 391; Pl. 2
 gastrocoeli, 923
Gastrolobium (BOT.), 81
 Gastropachinae, 900
Gastrophora henricaria (Guenée), 890
Gastrostoma, 277, 278; *G. disjunctus* (Silvestri), 278
 Gateff, E., 249
 Gatehouse, A. G., 103, 104
Gatesclarkeana tenebrosa (Turner), 873
 Gatesclarkeanini, 873
 Gauld, I. D., 118, 182, 916, 932, 944, 945
Gauna aegualis (Walker), 887
Gaurax, 780; *G. flavoapicalis* (Malloch), 780; *G. luteohirtus* (Malloch), 780; *G. tonnoiri* (Malloch), 780
Gavrana, 945
 Gay, F. J., 205, 208, 216, 330, 339-47 *passim*
Gayomyia, 769-70
Gazoryctra, 840
 Geadephaga, 609
 Gegenbaur, C., 12
Gehyra pilbara (REPTILIA), 339
Geijera (BOT.), 449, 513, 515
 Geimtzidae, 167
Gelastissus, 478
 Gelastocoridae, 443, 487, 488
 Gelastocoroidea, *see* Ochteroidea
Gelastopsis insignis Kirkaldy, Pl. 3
 Gelechiidae, 821, 831, 832, 859, 862, 863, 865, 866, 868-9, 949, 961, Pl. 7
 Gelechiinae, 868
 Gelechioidea, 820, 821, 830, 832, 833, 846, 855, 859-70
Geleis, 945
Geloptera, 678
Gelothrips, 515
 gena, 5
 Genaphididae, 170
Gendua, 900; *G. acedesta* (Turner), 900
 genealogy, 114
 genetics, 238-51 *passim*
 Gengidae, 443
 genital atrium, 19
 genital capsule, 551
 genitalia, 17-23, 150
 genotypic variation, 113
 Gensel, P. G., 77
Gentianella (BOT.), 885
 Gentry, A. W., 193
 genus, 109; genus group, 121
Genustes, 838
 Geocorinae, 439, 441, 493, 496, 500, 501, 502
Geocoris, 502
 Geocorisae, 444, 445
 geographic variability, 113, 233, 829
Geohollandia, 711, 714; *G. solida* (Rothschild), 714
 geological divisions, 141, 142
 geological history (Australia), 191-3
 Geometridae, 99, 113, 819, 822, 829, 830, 831, 832, 884, 889-91, 892, 895, 939, 949, Pl. 8
 Geometrinae, 890-1
 Geometroidea, 44, 821, 832, 833, 846, 889-91
 geophiles, 377, 611
 Geophilidae (CHILOPODA), 985
 George, W., 193
 Georissinae, 617, 618
Georissus, 575, 580, 587, 618; *G. australis* (King), 617
 Geoscapheinae, *see* Panesthiinae
Geoscaphus, 323, 329; *G. robustus* Tepper, 329
Geotrupes, 563; *G. spiniger* (Marshall), 627
 Geotrupidae, 562, 563, 564, 567, 600, 626, 627
 Geotrupinae, 563, 627
Gephyroneura, 900
 Gepp, J., 525
 Geraridae, 167, 168
Gerarus danielsi Handlirsch, 167
 germ band, 64
 germ cells, 64
Germalus, 502; *G. elegantulus* (Distant), 500
 Geron, 759
Gerontha, 850
 Gerridae, 75, 76, 135, 435, 440, 443, 482, 483, 484-5, 954
 Gerrinae, 484-5
 Gerroidea, 72, 75, 76, 443, 445, 447, 483-5
 Gerromorpha, 431-5 *passim*, 439, 440, 443, 445, 480, 481, 482-5
 Ghauri, F. Y. K., 492
 Ghauri, M. S. K., 464, 492
 ghost ant, *see* *Tapinoma melanocephalum*
 ghost moths, *see* Hepialidae
 giant sensitive plant, *see* *Mimosa pigra*
Gibbium: *G. aequinoctiale* Boieldieu, 644; *G. psylloides* (Czempinski), 643
 Gibbney, H. J., 205, 210, 216
 Gibbs, A. J., 634

- Gibbs, G. W., 182, 188, 835, 899
 Gibson, G. A. P., 931, 936, 938, 939, 941, 943, 956, 957, 960, 967, 974
 Giersberg, H., 399
 Gigatitanidae, 165
 Giglio-Tos, E., 353
 Gilbert, L. A., 205
 Gilbert, L. E., 82
 Gilbert, L. I., 33
 Gilbert, P., 200
 Gilby, A. R., 448
 Giles, E. T., 357-65 *passim*
 Gill, R. J., 462
 gill theory (of wing origin), 12
 Giller, P. S., 187
 Gillieson, D. S., 111
 gills, 41, 42, 73, 313, 618, 632, 730, 886, 887; abdominal, 281-93 *passim*, 300, 313, 516, 518, 530, 616, 792, 798-816 *passim*; anal, 313, 559, 634, 635, 746; blood, 41, 73; filaments, 742; oral, 281, 289, 313; spiracular, 608; thoracic, 281, 313, 746; tracheal, 41, 42, 300, 311, 608, 614, 790, 792, 311; *see also* plastron
 Gilmour, J. S. L., 110
 gin traps, 559, 635
 ginglymus, 8
 Ginsborg, B. L., 54
 Girault, A. A., 199, 208, 209, 210, 216
 Given, B. B., 978
 gizzard, *see* proventriculus
 Gjullin, C. M., 68
Glabella australis (Malloch), 758
 glaciation, in Australia, 193-4, 195
Glaciopsyllus antarcticus Smit and Dunnet, 68
 gladiolus, pests of, 513
 Glaister, A., 634
 glands: abdominal, 54, 56, 265, 322, 510-11; accessory, 62, 63, 371, 555, 728, 822, 824-5, 826, 925; acinose, 640; Brindley's, 435; Carayon's, 435; colleterial, 322, 555, 790; Comstock-Kellogg, 371; defence, 55, 56, 92, 561, 636, 678, 906, 908; dermal, 229, 829; dorsal, 624, 898; Dufour's, 995; endocrine, 50; exocrine, 53-5; frontal, 56, 332-3, 345; gastral, 986; integumental, 371; intersegmental, 376, 561; labial, 53, 254, 826, 925; mandibular, 54, 827; metapleural, 980, 987; metathoracic, 56; milk, 731; Nasonow's, 686; pheromone, 54-5, 56, 323, 679, 821, 829, 925, 980, 982; prostate, 371; prothoracic, 50, 830, 908, 909; pygidial, 554, 561, 609, 616, 623; repugnatorial, 229, 371, 376, 392, 396, 398; salivary, 53, 54, 229, 272, 276, 358, 395, 414, 435, 554, 699, 728, 730, 827, 995; scent, 55-6, 435, 456, 479, 480, 488, 527, 529, 787, 819, 895, 897, 899, 948; silk, 53-4, 271, 405, 406, 414, 512, 554, 826, 925, 957; sternal, 336; tarsal, 54; tergal, 322, 323; toxic mucus, 233-4, 932; uricose, 323; venom, 226, 227, 229, 925; wax, 434, 435, 448, 452, 456, 535
 Glaphyridae, 559, 564
 Glaphyriinae, 889
Glaphyrophlebia: *G. subcostalis* (Martynov), 168; *G. uralensis* (Martynov), 168
 Glareidae, 564
 Glasgow, J. P., 790
Glaucias amyoti (White), 508, 509
Glenbalodectes, 121
Glenochrysa, 539
Glenoleon, 541; *G. pulchellus* (Rambur), 526
Glipostenoda, 663
Gliricola porcelli (Schränk), 427
Glochidion (BOT.): *G. ferdinandi* 883; *G. lobocarpum*, 891
Glochocoris, 497
 Glorioso, M. J., 517
 glossa, 8
 Glossata, 140, 817, 819, 828, 832, 833, 834, 837-914
 Glosselytrodea, 142, 144, 168, 171, 178
Glossina, 55, 57, 731; *G. morsitans* Westwood, 72
 Glossinidae, 72, 732, 735
Glossopteris (BOT.), 178
 Glossosomatidae, 792-9 *passim*, 800, 802, 810
 glow-worms, *see* *Arachnocampa*
 glucosamine, 34
 glucose, 58
 glucosides, 78
 glutamate, 42
 glutamic acid, 58
Glycaspis, 448, 449, 451; *G. (Synglycaspis)*, 449
Glycine (BOT.), 854
 glycogen, 60
 glycols, 257
 glycosidases, 257
 glymma, 923
Glypheus, 637
 Glyphipterigidae, 832, 855, 856, 857, 858
Glyphipterix, 857, 858; *G. gemmipunctella* (Walker), 856, 857
Glyphochilus, 638
Glyphodes, 888; *G. canthusalis* (Walker), 884
Glypholoma, 563, 622
Glyptoaptera, 497
Glyptotermes, 341, 344
Gminatus nigroscutellatus Breddin, 496
Gnamptodon, 948
 Gnamptodontinae, 947, 948
 Gnathidiini, 665, 667
Gnathifera, 882, 888; *G. eurybias* (Meyrick), 882
 gnathobase, 145
 gnathocephalon, 4
 gnathos, of Lepidoptera, 822
Gnathothlibus erotus (Cramer), 904
Gnatocerus cornutus (Fabricius), 667
 goat moths, *see* Cossidae
Gobrya, 765, 770
 Goddard, E. J., 216, 217
 Godeffroy Museum, Hamburg, 205
 Goede, A., 71
Goedeterechus mendumae Moore, 72, 614
 Goel, S. C., 432
 Goelet, P., 249
 Goeridae, 795
Goffartia (NEMATODA), 560
 Gogala, M., 435
 Gokan, N., 358
 Goldman, N., 115
 Goldsworthy, G. J., 104
 Göllner-Scheiding, U., 504
 Gomphidae, 298, 301, 302, 304, 305, 308, 309, Pl. 1
 Gomphinae, 304, 308, 309
Gomphiocephalus hodgsoni Carpenter, 255
Gomphocarpus (BOT.), 897
 Gomphocerinae, 374, 390
 Gomphomacromiinae, 304, 308, 309-10
 Gomphomastacidae, 388
 gonangulum, 19
 gonapophyses, 18
 Gonatocerinae, 970
 Gonatoceras, 970
 Gonatopodinae, 971, 972-3
Gonatopus, 972, 973; *G. sepsoides* (Westwood), 690
 Gondwana, 81, 143, 144, 189, 191-6 *passim*, 271, 285, 304, 314, 340, 366, 415, 442, 456, 461, 481, 494, 507, 563, 733, 794, 795, 831, 930, 944-5, 950, 953
 Goniacerinae, 624
 Goniaderini, 667
Goniaea, 391; *G. australasiae* (Leach), 245, 390
 Goniinae, 784
Goniocotes gallinae (Degeer), 427
Goniodes dissimilis Denny, 427
Goniozus, 973
 Gonipterinae, 682
Gonipterus, 562, 682; *G. scutellatus* (Gyllenhal), 682
Gonocephalum, 562, 667; *G. meyricki* Blackburn, 666
 gonocoxae, *see* valvifers
 gonocoxites, 18
Gonolabis, 366
 gonopods, of Phthiraptera, 422
 gonopore, 19
 gonostyle, 18
Gonystus, 502
 Gonzal, J. E., 225
 González, R. H., 458, 462, 464
 Goodchild, A. J. P., 59
Goodenia (BOT.), 980
 Goodeniaceae (BOT.), 771
 Goodger, D. T., 909
 Goodman, C. S., 248, 249
Goondnomdanepa, 486-7
 gooseberry, pests of, 877
 Gordh, G., 927, 973
 Gordioida (gordian worms) (NEMATOMORPHA), 324, 794
 Gordon, R. D., 552, 658
 Gorochov (Gorokhov), A. V., 164, 384
 Gorpis, 491
 Gorytini, 442, 990, 991
Gossypium (BOT.), 914
 Goto, H. E., 115, 254
 Gotra, 945
 Gotwald, W. H., 989
 Gould, S. J., 113
 Goulet, H., 113
 Gower, A. M., 790
 Gozmány, L., 869
Gracilentulus gracilis (Berlese), 268
 Gracillariidae, 828, 831, 832, 847, 850, 852-4, 855, 856, 962, Pl. 7
 Gracillariinae, 853-4
 Gracillarioidea, 847
 grain insects, *see* stored products, pests of
Gralliiclava, 503
 Gramineae, *see* Poaceae
 Grande, L., 196
 Grant, H. J., 388
 granulocytes, 61, 62
 grape vines (grapes), pests of, 408, 456-7, 904, 914
 grapevine moth, *see* *Phalaenoides glycinae*
Graphium, 895, 896; *G. macleanianum* (Leach), 895; *G. sarpedon* (Macleay), 894, 895
Graphognathus leucoloma (Boheman), 562, 682
Grapholita molesta (Busck), 55, 874
 Grapholitini, 874
Graptostethus servus (Fabricius), 502
 grass: as food or habitat, 256, 261, 262, 264, 336, 340, 345, 346, 347, 382, 384, 386, 388, 389, 390, 391, 401, 404, 418, 452, 455, 467, 468, 472, 476, 479, 490, 493, 499, 502, 504, 515, 637, 650, 653, 658, 677, 770, 777, 780, 831, 835, 840, 860, 865, 868, 870, 887, 889, 893, 895, 897, 900, 914, 944, 962, 965, 967; seeds, 381, 384, 758, 962, 965; *see also* pasture
 Grassé, P.-P., 33, 330, 341
 grasshoppers, 369; *see also* Orthoptera
 Gravely, F. H., 651
 Gray, E. G., 45
 Gray, J., 143
 Gray, N., 202
 Greber, R. S., 81
 green lacewings, *see* Chrysopidae
 green potato bug, *see* *Cuspicona simplex*
 green tree ant, *see* *Oecophylla smaragdina*
 green vegetable bug, *see* *Nezara viridula*
 green weaver ant, *see* *Oecophylla smaragdina*
 Greenberg, L., 999
 Greene, E., 113
 greenhead ant, *see* *Rhytidoponera metallica*
 greenhouse pests, 325, 452, 459, 513, 515, 749

- greenhouse thrips, *see Heliothrips haemorrhoidalis*
- Greenidcinae, 454, **456**
- Greenslade, P., 77, 143, 154, 252-64 *passim*
- Greenslade, P. J. M., 193, 257, 341, 989
- Gregarina ovata* (PROTOZOA), 364
- Gregarinae (gregarine Sporozoa) (PROTOZOA), 273, 276, 314, 732, 987
- gregarious insects, 256, 270, 273, 329, 376, 377, 382, 384, 398, 399, 407, 410, 411, 415, 441, 463, 465, 473, 482, 483, 484, 493, 497, 529, 542, 562, 616, 682, 749, 760, 830, 835, 855, 856, 860, 870, 873, 886, 887, 889, 896, 897, 899, 902, 904, 907, 910, 926, 928, 934, 935, 943, 945, 949, 952, 969, 980, 993, 999; *see also* colonial insects; communal behaviour; social insects
- Gregg, P. C., 108, 391
- Grenacher, H., 49
- Gressitt, J. L., 69, 185, 677, 733
- Grevillea* (BOT.), 194, 461, 493, 890, 903, 904, 914; *G. punicea*, 869
- Grey, G., 201
- Griffiths, G. C. D., 717, 725, 772
- Griggs, T. D., 857
- Grimaldi, D., 780
- Grimes, L. R., 825
- Griphologus lowei* (Etheridge and Olliff), 179
- Gripopterygidae, 163, 312-16 *passim*, **317-18**
- Gripopterygoidea, 314
- Gromphadorhina*, 49, 329
- Gross, G. F., 429, 479-509 *passim*
- ground beetles, *see* Carabidae
- ground pearls, *see* Margarodidae
- groundplan, 117; of hexapod head, 146-8; leg, 144-6; pregenital segments and genitalia, 150; wing articulation, 13, 148-9; wing venation, 15, 149-50
- grouse-locusts, *see* Tetrigoidea
- Grunin, K. Ya., 174
- Gryllacrididae, 90, 164, 370, 375, 378, **380-1**
- Gryllacridoidea, 164, 378, 379, **380-1**
- Gryllidae, 44, 63, 66, 113, 182, 370, 373, 378, 379, **385-6**, 392, 688, 694, 954, 962, 974, 991
- Gryllinae, 379, 384, **385-6**
- Gryllini, 386
- Grylloblatta*, 125, 358, 359; *G. campodeiformis* Walker, 22, 357, 358
- Grylloblattaria, *see* Grylloblattodea
- Grylloblattella*, 359
- Grylloblattida, *see* Grylloblattodea
- Grylloblattidae, 359
- Grylloblattina*, 359
- Grylloblattinae, 359
- Grylloblattodea, 21, 22, 31, 77, 130, **133-4**, 142, 162, **167**, 320, **357-9**, 360
- Grylloblattoidea, *see* Grylloblattodea
- Gryllodes*: *G. sigillatus* (Walker), 386; *G. supplicans* (Walker), 386
- Grylloidea, 43, 44, 49, 88, 106, 164, 352, 374, 375, 378, **384-6**, 392
- Gryllomorphini, 386
- Grylloptera, 134
- Gryllotalpa*, 61, 386
- Gryllotalpidae, 61, 378, 384, **386**, 392, 393, 614, 688, 694, 978, 991
- Gryllotaurus*, 380
- Grylls, N. E., 81, 471, 472, 476
- Gryon*, 954
- Gryonini, 954
- guano, *see* bats; birds
- Guiglia*, 918, 920, 923, 932, 934; *G. sericata* Mocsary, 933
- gula, 7
- Gullan, P. J., 109, 182, 457, 460, 461, 463
- gumleaf skeletoniser, *see* *Uraba lugens*
- Gunn, D. L., 104
- Günther, K., 362, 365, 367, 400, 401
- Günther, K. K., 392, 412
- Gupta, A. P., 252, 555
- Gupta, V. K., 944
- Gurney, A. B., 182, 382, 401, 403, 410
- Gur'yeva, Ye. L., 637, 638
- Guthrie, D. M., 320
- Guttiferae (BOT.), 450
- Guy, P. L., 634
- Gwynne, D. T., 250, 251, 376, 632, 889
- Gymnobilidius leadbeateri* (MAMMALIA), 714-15
- Gymnochiromyia*, 773
- Gymnochthebius*, 619
- Gymnogryllini, 386
- Gymnorhina* (AVES), 986
- Gymnoscelis*, 891
- gymnosperms (Pinophyta) (BOT.), 144, 194, 448, 848, 931
- Gynacantha*, 309; *G. nourlangie* Theischinger and Watson, 72
- Gynacanthaginae, 304, 308, **309**
- Gynoplistia*, 726, 742; *G. apicalis* Walker, 741
- Gyrinidae, 72, 73, 178, 516, 544, 547, 554, 558, 564, 567, 592, 609, 614, 615, **616**
- Gyrinus*, 616
- Gyromantis*, 353; *G. krausii* (Saussure), 351
- Gyrophaena*, 623
- Gyropidae, 426, **427**
- Gyropus ovalis* Burmeister, 427
- Haaniella*, 400
- Habroloma*, 632
- Habronyx*, 945
- Habu, A., 614
- Hacker, H., 199, 206, 208, 218, 476, 479, 993
- Hackeriella*, 479
- Hackman, R. H., 241
- Hadeninae, 226, 231, 829, **914**
- Hadlington, P., 330, 340, 399
- Hadrogyllacris*, 370, 381; *H. magnifica* (Brunner), 381
- Hadronotus*, 953
- Haeckel, E., 238
- Haemaphysalis longicornis* (ACARINA), 246
- Haematobia*, 720; *H. exigua* de Meijere, 219, 247, 720, 732, 780
- Haematomyzidae, 426
- Haematomyzus*, 421
- haematophagy, *see* blood-feeding insects
- Haematopinidae, 423, 426, 427, **428**
- Haematopinus*: *H. asini* (Linnaeus), 423, 428; *H. eurysternus* (Nitzsch), 424, 425, 428; *H. quadripartitus* Fahrenholz, 428; *H. suis* (Linnaeus), 423, 428; *H. tuberculatus* (Burmeister), 428
- haemocoelae, 43, 60, 61
- haemocoelic insemination, 23, 440, 489-91
- haemocytetes, 61, 62
- Haemodipsus*: *H. lyriocephalus* (Burmeister), 428; *H. ventricosus* (Denny), 425, 428
- haemoglobin, 57, 61, 731, 744
- haemolymph, 37, 43, 59, 60-2; as food, 98, 408, 489, 879, 924, 925, 926, 945, 954, 983, 985; reflex bleeding, 384, 561, 658
- Haga, K., 169, 170, 511
- Hagan, C. E., 746
- Hagen, K. S., 658
- Hagenomyia*, 541
- Haglidae, 164, 378, 382
- hair follicle mite, *see* *Demodex folliculorum*
- hair-pencils, 55, 529, 541, 759, 819, 821, 840, 844, 863, 873, 880, 885, 897, 908, 910, 912
- hairs, *see* macrotrichia; microtrichia
- Hakea* (BOT.), 449, 450, 459, 733, 863, 881, 890, 962, 980; *H. saligna*, 859
- Halacritus*, 618
- Hales, D. F., 454, 456
- Halffter, G., 562, 627, 630
- Halictidae, 929, 931, 943, 993, 995, 996, 997, **998**
- Halictinae, 995, **998**
- Halictini, 998
- Halictophagidae, 684-92 *passim*, **693-4**
- Halictophaginae, **694**
- Halictophagus*, 686, 689, 690, 694; *H. languedoci* Abdul-Nour, 690; *H. tryoni* Perkins, 690
- Halictoxenus*, 687, 695
- Halimococcidae, 443, 459, 462, **464**
- Halipeurus diversus* (Kellogg), 422
- Haliplidae, 73, 177, 558, 560, 564, 567, 592, 609, **614**, 615
- Haliplus*, 177, 614; *H. testudo* Clark, 615
- Hall, J. C., 759
- Hall, N., 181
- Hallodapini, 493
- Hallodapus*, 493
- Halobates*, 76, 440, 485; *H. mjobergi* Hale, 76
- Halobatinae, 440, **485**
- Halone coryphaea* (Hampson), 910
- Halotydeus destructor* (ACARINA), 207
- Halovelis*, 483
- Haloveliinae, 440, **483-4**
- Halsey, S. H., 452
- Halstead, D. G. H., 551, 561, 651, 656
- halteres, 723
- Halticellinae, **961**
- Halticellini, 961
- Halticini, 431, 493
- Halticorcus playcerii* Lea, 678
- Halticus*, 492; *H. minutus* Reuter, 493
- Halys*, 442
- Hamaxas*, 367
- Hamburg South-Western Australian Research Expedition, 216
- Hamid, A., 502
- Hamilton, A., 518
- Hamilton, K. G. A., 15, 17, 135, 136, 170, 430, 444, 467, 468, 471, 479, 548, 549
- Hamilton-Smith, E., 71, 560, 624
- Hamlyn-Harris, R., 199, 208, 217, 218
- Hamm, A. H., 91, 976
- Hammond, P. M., 548, 550, 560, 609, 636, 662
- Hamon, A. B., 462, 464
- hamules, of Odonata, 299
- hamulohalteres, 457
- hamulus (hamuli), 14, 790, 809, 813, 921
- hamus, of Hemiptera, 506
- Hancock, D. L., 895
- Hand, S., 80
- Handlirsch, A., 179, 285, 325, 517
- hanging-flies, *see* Mecoptera
- Hanidae, 159
- Hanseniella* (SYMPHYLA), 18
- Hapalips*, 654
- Hapatesus*, 637; *H. hirtus* Candeze, 639
- haplodiploidy, 927
- Haplogastra, 565
- haplometrosis, 983
- Haploscapanes*, 563; *H. barbarossa* (Fabricius), 631
- Haplothrips*, 515; *H. niger* (Osborn), 513; *H. victoriensis* Bagnall, 513
- Hapsidotermes*, 346
- Hardie, W. J., 457
- Hardy, D. E., 717, 749, 763, 775
- Hardy, G. H., 199, 206, 216-17, 747, 755, 758, 759, 760, 763, 782
- Hardy, R. J., 840, 841
- Hargreaves, J. R., 364
- Harker, J. E., 286
- harlequin bug, *see* *Dindymus versicolor*
- Harley, K. L. S., 113, 494, 563
- Harmaclona*, 821, 823, 850
- Harmonia conformis* (Boisduval), 658
- Harpactorinae, 495, **496**
- harpagones, *see* parameres
- Harpalini, 562, 609, 612, 614
- Harpobittacus*, 64, 696-703 *passim*; *H. australis* (Klug), 700, 702; *H. nigriceps* (Selys), 700, 701, 702; *H. tillyardi* Esben-Petersen, 700
- Harrewijn, P., 456
- Harris, A. C., 976
- Harris, W. V., 330
- Harrisia* (BOT.), 442
- Harrisia cactus, *see* *Eriocereus martinii*

- Harrison, L., 190, 199, 211, 219, 422
Harrison, R. A., 717, 751
Hartman, H. B., 329
Hartmeyer, R., 216
Harvard Expedition, 216
Harvey, D. J., 899
Harvey, I. F., 303
Hasenfuss, I., 826
Hasora, 893
Hasta, 478
hastisetae, of Coleoptera, 561, 642
hatching (eclosion), 64-5, 425; devices, 65, 276, 372, 411, 414, 425, 496, 511, 528, 556, 708
Haub, F., 426
haustellum, *see* proboscis
Havithus rufovarius Bergroth, 496
Hawkeswood, T. J., 544, 632, 647, 677
Hawking, J. H., 294, 304
Hawkins, B. A., 973
Hawksworth, D. L., 110
Hawomersleya, 748
Hayashi, N., 650, 660
Hayat, M., 968
head, 4, 5-9; groundplan, 146-8
head louse, *see* *Phthirus capitis*
hearing, sense of, 43-4
heart, 60-1
heat shock protein genes (hsp), 241-2
Heather, N. W., 459
Hebard, M., 325, 364
Hebridae, 443, **482**, 483
Hebrinae, **482**
Hebroidea, 443, 445, 447, **482**
Hebrus, 482; *H. axillaris* Horváth, 482
Hecalini, 472
Hecatesia, 914; *H. fenestrata* Boisduval, 914, Pl. 8
Hedicke, H., 941
Hedista, 654
Hednota, 887; *H. pedionoma* (Meyrick), 884
Hedyliidae, 832, 895
Hedyloidea, 832, 833
Heerdt, P. F. van, 362
Hefetz, A., 821
Heie, O. E., 453, 456
Heikinheimo, O., 690
Heimbrinae, 961
Heinsius, 502
Heinz, H. J., 725
Heinze, K., 456, 457
Helcogaster, 647
Helcomyzidae, 734, 765, 768
Helconinae, 946, **948**
Heleidae, *see* Ceratopogonidae
Heleini, 563, 665, 667
Heleomyzidae, 733, 734, 765, 767, **771-2**, 773
Heleomyzini, 772
Heleomyzoidea, 734, **771-3**
Heleus waitei (Lea), 666
Helferella, 632
Helichrysum (BOT.), 877, 962
Helicopha delamarei Jacquemart, 800, 806
Helicophidae, 795, 797, 798, 800, 806, **809**, 814, 815
Helicopsyche, 790, 800, 814; *H. murrumba* Mosely, 806
Helicopsychidae, 793-7 *passim*, 800, 806, **809**, 814
Helicoverpa, 489, 829, 912, 948, 969; *H. armigera* (Hübner), 38, 107, 108, 914; *H. assulta* (Guenée), 914; *H. prepodes* (Common), 914; *H. punctigera* (Wallengren), 108, 914
Helictinae, **945**
Heliocausta hemiteles Meyrick, 860
Heliocheilus, 914
Helioidines, 858; *H. princeps* Meyrick, 857, Pl. 7
Heliodinidae, 832, 855, **857**, 858, 861, Pl. 7
Heliothinae, 912, **914**
Heliolithis, 914
Heliothrips haemorrhoidalis (Bouché), 513, 515
Heliozela, 841, 843; *H. prodela* Meyrick, 845
Heliozelidae, 821, 831, 832, 833, 841, **842-3**, 845
Helius, 741
Hellula: *H. hydralis* Guenée, 889; *H. undalis* (Fabricius), 889
Helluonini, 612, 614
Hellyethira, 810; *H. simplex* (Mosely), 791
helmet, of Siphonaptera, 705
helmet-fleas, *see* Stephanocircidae
helminth parasites, 89, 98, 324, 732
Helminthidae, *see* Elmidae
Helms, T. J., 825
Helochares australis Blackburn, 617
Helodidae, *see* Scirtidae
Helonotus, 496
Helopeltis australiae Kirkaldy, 491
Helophorinae, 618
Helophorus, 618
Heloridae, 530, 930, 949, **950**, 951
Helorus, 950; *H. australiensis* New, 951
Helosciomyza, 768, 772
Helosciomyzidae, 734, 765, **768**, 772
Helotidae, 565, 649
Helotrephidae, 443
Heluscolia, *see* *Pseudopomyza*
Hely, P. C., 205, 464
hemelytron, 12, 433
Hemerobiidae, 441, 525-34 *passim*, 537, **538-9**, 696, 956
Hemerobioidea, 531, **538-9**
Hemerobius, 539
Hemerodromiinae, **760**
Hemeromyia, 777
Hemianax papuensis (Burmeister), 309
Hemicordulia, 309; *H. australiae* (Rambur), 301, 309; *H. tau* (Selys), 302, 309
Hemigomphus, 309
Hemilexomyia, 950, 951
Hemimeridae, 93, 94, 364
Hemimerina, 134, 361, 362, 364, 365
Hemimerus: *H. bowieri* Chopard, 362; *H. vosseleeri* Rehn and Rehn, 365
Hemimetabola, 62, 152
hemimetaboly, 66
Heming, B. S., 135, 510, 511, 512
Hemiodoecellus, 479; *H. fidelis* (Evans), 479
Hemiodoecus, 479
Hemiopsida, 637
Hemiowoodwardia, 479
Hemipeplidae, *see* Mycteridae
Hemipeplinae, 666, **668**
Hemipeplus, 577, 606, 668; *H. australicus* Arrow, 666, 668
Hemipepsis, 975
Hemiphlebia, 297, 304; *H. mirabilis* Selys, 306
Hemiphlebiidae, 304, 305, **306**
Hemiphlebioidea, 304, **306**
Hemipsocidae, 416, 418, **420**
Hemiptarsenus, 969
Hemiptera, 9, 11-19 *passim*, 23-31 *passim*, 35, 38, 40, 41, 49-60 *passim*, 71-84 *passim*, 88-101 *passim*, 106, 107, 108, 113, 114, 133, 135, **136**, 142, 146, 150, 168, **169-71**, 179, 182, 207, 208, 212, 222, 223, 224, 227, 229, 231, 232-3, 257, 408, 415, **429-509**, 510, 511, 513, 535, 560, 563, 631, 646, 650, 658, 685, 689-94 *passim*, 700, 731, 732, 763, 778, 780, 783, 784, 879, 880, 886, 912, 929, 940, 950, 953, 962-73 *passim*, 985, 987, 991, 993, Pl. 3
hemipteroid orders, 16, 19, 22, 23, 143, 150, 151, 153, 156, 162, 165, 166, 167-71, 172, 410, 412
hemirhipidiinae, **664**
hemistermite, 553
hemitergite, 19
Hemithynnus, 978
Henderson, G., 386
Hendy, M. D., 120
Henicinae, **380**
Henicocorinae, 501, **503**
Henicocoris monteithi Woodward, 503
Hennig, W., 116, 117, 118, 120, 125, 127, 133, 140, 143, 154, 162, 163, 167, 170-8 *passim*, 184, 187, 252, 272, 444, 691, 717, 723, 725, 733, 735, 753, 762, 775, 780
Henoticus, 653
Henry, C. S., 529
Henschiella, 481
Heoclisia, 541; *H. fulva* (Esben-Petersen), 541; *H. fundata* (Walker), 541
Hepaticae (BOT.), 480, 634, 835
Hepialidae, 223, 535, 817-22 *passim*, 825, 826, 829-33 *passim*, 836, 838, 839, **840-1**, 881, Pl. 8
Hepialoidea, 824, 832, 837, **838-41**
Heppner, J. B., 857, 875, 877
Heptageniidae, 285, 286
Heptagenioidea, 285, **289-90**
Heptagyia tasmaniae Freeman, 719
Heptapsogasteridae, 426
Heratemis, 948
Herbertia, 965
Herbertiinae, **965**
herbivory, *see* phytophagy
Herdina mirificus Carpenter and Richardson, 152
Herdiniidae, 152, 168
Herman, L. H., 623
Hermann, H. R., 330, 333, 339, 916, 989
hermaphroditism, 440, 458
Hermatobates, 483; *H. haddoni* Carpenter, 483
Hermatobatidae, 75, 440, 443, **483**
Hermiiniidae, 832, 905, 906, **910**, 911
Hermisenda (MOLLUSCA), 249
Herodotia subatriveritis (Girault), 964
Herpetogramma licarsisalis (Walker), 889
Herring, J. L., 438, 479
Herter, K., 362, 363, 365, 367
hesmosis, 984
Hesperentomidae, 267
Hesperioidea, 829, 832, 890, **893-5**, 896, 898, Pl. 8
Hesperinae, **893-5**
Hesperilla, 893; *H. mastersi* Waterhouse, 890, 893
Hesperioidea, 828, 832, 833, 846, **893-5**, 896, 898
Hesperocolletes, 995
Hesperocordulia, 304, 308, 310
Hesperotermes, 346; *H. infrequens* (Hill), 346
Hessian fly, *see* *Mayetiola destructor*
Hesthesis, 673; *H. cingulata* (Kirby), Pl. 6; *H. ferruginea* (Boisduval), Pl. 6; *H. variegata* (Fabricius), Pl. 6
Hestiochora, 878; *H. tricolor* (Walker), 877, Pl. 6
Hetairotermes, 561
Heterapoides, 996
Heterobathmiidae, 819, 831, 833
Heterobathmiina, 817, 819, 825, 828, 831, 833, 834
Heterobathmioidea, 831
Heterocephalus glaber (MAMMALIA), 103
Heteroceridae, 40, 117, 560, 564, 580, 600, 601, 632, 633, **634-5**
Heterocerus, 635; *H. flindersi* Blackburn, 633
Heterocheirini, 665, 667
Heteroconis, 535
Heterodoxus, 424, 427; *H. ampullatus* Kéler, 423; *H. octoseriatus* Kéler, 423; *H. spiniger* (Enderlein), 427
heteroecy, 453-4, 456
Heterogastrinae, 442, 501, **503**
Heterogynainae, 990
Heterogynidae, 832
Heterojapygidae, 269, 270, **271**
Heterojapyx, 145, 269, 270, 271; *H. evansi* Womersley, 128, 269, 270, 271
Heterolepisma, 277, 278; *H. hartmeyeri* Silvestri, 278; *H. michaelsoni* Silvestri, 278
Heteromastix, 640

- Heteromera, 565, 660
Heteromeringia norrisi D. McAlpine, 774
heteromeroid aedeagus, 552
heteromeroid trochanter, 547
heteromorphosis (larval), 562, 688, 753, 851, 852-3, 877-80 *passim*, 925
heteromorphs, of Odonata, 299
Heteromurus, 261
Heteroneura, 818, 819, 832, 833, 837, 838, **841-914**
Heteroneuridae, *see* Clusiidae
Heteronychus, 563; *H. arator* (Fabricius), 562, 631
Heteronympha, 897; *H. merope* (Fabricius), 225, 897
Heteronyx, 630
Heteropelma, 945
Heteroponera, 984
Heteropsilopus, 761; *H. cingulipes* (Walker), 720, 726, 760, 761; *H. ingenuus* (Erichson), 760
Heteropsysche, 878, 879, 888; *H. melanochroma* Perkins, 876, 879
Heteropsylla cubana Crawford, 231, 449
Heteroptera, 12, 17, 49, 50, 53, 56, 59-65 *passim*, 75, 92, 101, 135, 136, 170, 171, 178, 179, 429-45 *passim*, **479-509**, 690, 692, 693, 954, 967, 968, Pl. 3
heteropteroid group, 171
Heteropteroidea, 169, 170, 444
Heteropteryginae, 400
Heterotermes, 344-5; *H. ferox* (Froggatt), 332; *H. intermedius* Hill, 343
Heterotermitinae, **344-5**
Heterothops, 624
Heterothripidae, 169, 514
Hewitt, G. M., 243
Hexagenitidae, 160
Hexagoniini, 612
Hexameris cavicola (NEMATODA), 831
Hexapoda (hexapods): evolution, 141-79; key to orders, 24; phylogeny, 125-40
Hexatoma, 741
Hexatomini, 742
hexenal, *trans*-2-, 324
Hiarachas, 507
Hibbertia (BOT.), 877; *H. scandens*, 873
Hibiscus (BOR.), 449, 773, 869, 994
Hibrilidae, 832
Hickman, J. L., 481
Hickman, V. V., 418, 481, 644, 751
Hickmanella, 954
Hieke, F., 551
Hierodula, 356; *H. atricoxis* Wood-Mason, 355
Hieromantis, 860
Hieroxestinae, **850**, 851
Highley, E., 341
Hilara, 760
Hilarographini, 873
Hill, G. F., 199, 206, 208-9, 218, 330
Hill, K. G., 113
Hill, L., 110, 429, 481, 494
Hill, W. B., 624
Hille Ris Lambers, D., 453
Hillis, D. M., 120, 244
Hills, E. S., 178
Himalocynipinae, 956
Hincks, W. D., 364
hind gut, 54, 59
Hinton, H. E., 6, 7, 23, 36, 65, 66, 72, 74, 75, 138, 139, 172, 556, 558, 559, 561, 563, 608, 618, 625, 634, 635, 642, 644, 660, 689, 730, 732, 742, 746, 790, 825, 826, 827
Hippiscus, 163
Hippobosca equina Linnaeus, 785
Hippoboscidae, 27, 93, 94, 95, 96, 424, 731, 732, 735, 751, 768, 780, **785**
Hippoboscinae, **785**
Hippomacha, 869; *H. callista* (Meyrick), 860, 861
Hipposideros diadema (MAMMALIA), 490
Hippotion, 904; *H. celerio* (Linnaeus), 904; *H. scrofa* (Boisduval), 903, 904
Hirashima, Y., 321, 685, 689, 692
Hispellinus, 677; *H. multispinosus* (Germar), 674
Hispiinae, 559, 561, 562, 579, 585, 593, 596, 672, 674, 675, 676, **677**
Hispini, 674
histamine, 229
Hister walkeri Lewis, 617
Histeridae, 546, 552, 555, 556, 560-5 *passim*, 573, 575, 584, 587, 617, **618**
Histerini, 618
Histeroidea, 565
Histeromerinae, 947
histidine, 58
Hlavac, T. F., 546, 561, 609
Hobartiidae, 547, 564, 565, 572, 605, 652, **653**
Hobartius, 652; *H. tasmanicus* Sen Gupta and Crowson, 653
Hockey, M. J., 644
Hodek, I., 658
Hodges, R. W., 859, 864, 868, 904
Hodgness, D., 245
Hodkinson, I. D., 448, 449
Hodotermes, 345
Hodotermitidae, 166, 332, 340, 341, 345
Hoebcke, E. R., 625
Hoffmann, A., 680
Hofmannophila pseudopretella (Stainton), 860
Hogan, M., 336
Hohorstiella lata (Piaget), 96
Holcopogonidae, 832, 859
Holepyris, 973
Holland, G. P., 705, 708, 710
Holland, J., 203
Hölldobler, B., 989
Hollis, D., 450, 834
Holloway, B. A., 551, 552, 561, 626, 679, 730
Holloway, G. A., 945
Holloway, J. D., 185, 192, 834, 846, 878, 906, 909, 910, 914
Holmes, E. B., 114
Holocene Epoch, 141
Hololamprima, 626
Hololepta, 618
Holometabola, *see* Endopterygota
holometaboly, 66
Holoparamecinae, 600
Holoparamecus, 582; *H. depressus* Curtis, 658
Holoptilinae, 495, **496**
holotype, 122, 123
Holt, J. A., 340
Holt, M. K., 283, 284, 292
Homadaula, 851, 855; *H. myriospila* Meyrick, 851, 853
Homalictus, 998
Homalisiidae, 564
Homaloneura lehmani Brongniart, 158
Homaloneuridae, 158
Homethes, 613
Homilopsocidea, 416
Homo sapiens, *see* humans
Homodes, 830
Homoiopteridae, 158
Homolobinae, 948, **949**
homology, 114
Homona spargotis Meyrick, 873
Homoneura proximella (Malloch), 773
homonym, 122
homoplasy, 114, 117
Homoptera, 136, 170, 444, 445, 479
Homotomidae, 443, 448, **449**
Honda, M., 688
honey, 224, 231, 479, 668, 993, 995, 996, 1000; comb, 224, 1000; industry, 216, 231, 775, 929, 1000
honey bee, *see Apis mellifera*; native honey bees, *see Trigona*
honeydew, 84, 93, 224, 441, 442, 448, 452, 457, 464, 479, 529, 539, 650, 731, 782, 925, 971, 985, 990
honeypot ants, 224, 985
Hoogstraalia, 714, 715; *H. vandiemeni* Smit, 713, 715
Hook, A. W., 251
Hooker, J. D., 180, 181, 188, 190, 203, 238
Hope, F. W., 201, 202
Hopkins, G. H. E., 421, 423, 424, 426, 710
Hoplepiscapha, 654
Hoplolopha, 163
Hoplophanes, 843; *H. chlorochrysa* Meyrick, 845
Hoplopleura, 428; *H. calabyi* Johnson, 428; *H. pacifica* Ewing, 428
Hoplepleuridae, 426, 427, **428**
Hoplothrips, 515
Horaemorphus, 621
Horak, M., 114, 182, 251, 873, 874
horehound bug, *see Agonoscelis rutila*
Hori, H., 244
Horia, 563; *H. mira* (Blackburn), 668
Horiinae, **668**
Hormaphidinae, 453, 454, 455
hormones, 38, 50, 61, 65-6, 102; of host, 708
Horning, D. S., 203, 204
Horridge, G. A., 43, 250, 290
Horridipamera nieteri (Dohrn), 501
horse bot fly, *see Gasterophilus* spp.
horse flies, *see* Tabanidae
horticulture, pests of, 257-8, 325, 364, 368, 442, 452, 455, 458, 461, 502, 513, 562, 677, 682, 775, 850, 863, 873, 877, 889, 904, 908, 914, 929
Hoshihanomia, 663; *H. leucosticta* (Germar), 661
hospital ant, *see Monomorium pharaonis*
host specificity: of Culicidae, 743; of ectoparasites, 364, 423, 707-8, 785, 786; of Hemiptera, 448, 453-6; of Hymenoptera, 928, 945, 961, 963, 971, 975, 990; of Strepsiptera, 690
House, C. R., 54
house cricket, *see Acheta domesticus*
house dust mite, *see Dermatophagoides pteronyssinus*
house fly, *see Musca domestica*
household insects, 277, 278, 324-5, 327, 340, 364, 386, 414, 415, 417-18, 419, 530, 562-3, 642, 644, 673, 708, 709, 757, 770, 780, 850, 925, 929, 987; *see also* stored products, pests of
Houston, K. J., 111, 112, 510, 513, 514
Houston, T. F., 916, 980, 993-1000 *passim*
Houston, W. W. K., 55, 294, 516, 561, 625
hover flies, *see* Syrphidae
Howard, D. F., 513
Howard, L. O., 207, 210
Howarth, F. G., 71
Howarth, M. K., 191
Howden, A. T., 669, 682
Howden, H. F., 564, 625, 626, 627, 669
Howell, J. O., 460, 461, 462, 464
Howeria, 480; *H. kingsmilli* Evans, 169
Howes, K. M. W., 345
Howick, C. D., 623, 673
Howitt, G., 199, 204
Hoy, J. M., 461
Hoy, R. R., 349
Hubbard, M. D., 160
Huber, J. T., 960, 970
Hudson, G. V., 664
Hudson, L., 668
Hudson, N. M., 464
Huffaker, C. B., 232
Huggert, L., 953
Hughes, R. D., 104, 107, 246, 454, 780
Hughes-Schrader, S., 396
Hughleechia, 619; *H. giulianii* Perkins, 619
Huhentomon, 268
Hull, F. M., 758
human flea, *see Pulex irritans*
humans, 197, 221-35, 247-9; blood-suckers

- of, 74, 112, 227, 442, 489, 490, 708, 709, 714, 732, 743, 746, 753, 755; ectoparasites of, 93, 96, 113, 222, 227, 423, 424, 425, 428, 784; habitations, pests of, 277, 325, 340, 342, 343, 442, 667, 743, 744, 929, 980, 987; insects as food or economic resource, 222-4, 284, 304, 441, 442, 673, 899, 1000; insects (or parts, or products) harmful to, 226, 227-9, 285, 325, 479, 494, 496, 563, 624, 709, 732, 744-5, 746, 753, 755, 756, 780, 785, 794, 830-1, 879, 900, 902, 907, 908, 929, 980, 987, 1000; vectors of infection to, 325, 425, 442, 496, 709, 732, 744, 746, 747, 755; *see also* Aborigines
- humeral lobe, 14
 humeral plate, 13
 humeral vein, 17
 humeri, of Diptera, 721
 humerus, of Coleoptera, 548
 Humpesch, U. H., 282
 Humphries, C. J., 115, 188, 190, 193, 196, 197
 Hungerford, H. B., 485
 Hunter, D. M., 391
 Hunter, P. E., 560
 Hutchinson, K. J., 257
 Hutton, L., 192
 Huttoniidae, 734, 765, 768
 Huxley, C. R., 84
 Huxley, J., 789
 Huxley, J. S., 362
Hyalarcta, 848, 854; *H. nigrescens* (Double-day), 848
Hyalinaspis, 448
 Hyalopeplini, 493
Hyalopsyche disjuncta Neboiss, 799, 804
 Hyalopsychinae, 799, **803**, 804
Hyalopterus pruni (Geoffroy), 454
 hyaluronidase, 53, 91, 229
Hyblaea, 886, 888; *H. ibidias* Turner, 885; *H. puera* (Cramer), 884, 885
 Hyblaeidae, 832, 884, **885**, 886, 888
 Hyblaeoidea, 832, 833, 846, **885**, 886
 Hybosoridae, 564, 568, 600, 626, **627**
 Hybothoracini, 961
 Hybotinae, 759, **760**
 hybrid zones, 243
Hyderodes schuckardi Hope, 546
Hydnobioides pubescens Sen Gupta and Crowson, 653
Hydnophytum (BOT.), 985
Hydora, 634
 Hydracarina (ACARINA), 794
 Hydrachnoidea (ACARINA), 732
 Hydradephaga, 609
Hydraena, 619; *H. luridipennis* Macleay, 620
 Hydracnidae, 75, 178, 550, 556, 559-65 *passim*, 571, 580, 588, 604, 617, 618, **619**, 620
 Hydraeninae, **619**
Hydrellia, 777; *H. tritici* Coquillett, 777, 778
Hydrillodes funeralis Warren, 910
Hydrobasileus, 310
 Hydrobiinae, 617, **618**
Hydrobiosella, 810; *H. waddama* Mosely, 802
 Hydrobiosidae, 788-97 *passim*, **798-800**, 802, 810
 Hydrobiosinae, **800**, 802, 810
Hydrocanthus, 616; *H. australasiae* Wehnke, 615
 Hydrochinae, 617, **618**
Hydrochus, 577, 587, 617, 618; *H. serricollis* Lea, 617
Hydrocoptus, 616
 Hydrocorisae, 44, 444, 445, 486
 hydrogen cyanide, 561, 678
 hydrogen peroxide, 229
Hydrometra, 482; *H. risbeci* Hungerford, 483; *H. strigosa* (Skuse), 483
 Hydrometridae, 443, **482-3**
 Hydrometrinae, **482-3**
 Hydrometroidae, 443, 445, 447, **482-3**
Hydromys (MAMMALIA), 708
- hydrophiles, 611
 Hydrophilidae, 27, 73, 75, 178, 544, 545, 551, 556-64 *passim*, 571, 575, 577, 579, 580, 585, 586, 587, 590, **617-18**, 619, 621
 Hydrophilinae, 617, **618**
 Hydrophiloidea, 551, 564, 565, **617-18**
Hydrophilus, 545, 617, 618; *H. latipalpus* Laporte, 545
Hydrophorus, 73, 760
 Hydroproinae, 615
Hydropsyche, 793
 Hydropsychidae, 91, 788, 790, 791, 794-9 *passim*, **801-3**, 811
 Hydropsychinae, 799, 802, **803**, 811
 Hydropsychoidea, 792, 793, 794, 795, 797, **801-3**
Hydroptila scamandra Neboiss, 802
 Hydroptilidae, 787, 791-9 *passim*, **800-1**, 802, 810
 hydroquinone, 229
 Hydrosalpingidae, 795
Hydroscapha, 608
 Hydroscaphidae, 564, 608
 hydroxy-2-decenoic acid, (E)-9-, 55
Hydrurga (MAMMALIA), 428
Hygrobia, 615; *H. hermanni* (Fabricius), 615; *H. nigra* (Clark), 615
 Hygrobiidae, 73, 558, 560, 564, 567, 591, 609, **614-15**
 hygrometry, 7
 Hylaeinae, 943, 994, 995, **996**, 997
Hylaeora dilucida Felder, 903
Hylaeus, 996; *H. elegans* (Smith), 997
Hylastes ater (Paykull), 681, 683
Hylecthrus, 686, 687, 689, 693, 695
Hyleoides, 919, 996; *H. concinna* (Fabricius), Pl. 6
Hyles, 904; *H. lineata* (Fabricius), 904
 Hylcellidae, 170
 Hylcidae, 443
Hylotropes bajulus (Linnaeus), 673
Hylurgus ligniperda (Fabricius), 683
Hymaea, 571, 650; *H. magna* Sen Gupta and Crowson, 648; *H. succinifera* Pascoe, 650
 Hymacinae, 564, 588, 591, **650**
Hymenantha dentata (BOT.), 880
Hymenolepis (CESTODA), 364; *H. diminuta*, 709
 Hymenomyces (FUNGI), 654
 Hymenopodidae, 353, **355**
 Hymenoptera, 10, 14, 17, 19, 23-30 *passim*, 46, 48, 51, 52, 54, 55, 58, 61, 63, 64, 67, 69, 70, 72, 77-92 *passim*, 97-104 *passim*, 133, 137, 138, **140**, 142, 144, 152, 171-4 *passim*, 175, 178, 179, 182, 208, 216, 224-9 *passim*, 233, 234, 251, 304, 324, 339, 352, 388, 408, 415, 440, 441, 442, 455-6, 464, 509, 513, 519, 524, 530, 538, 556, 560, 562, 640, 664, 668, 671, 673, 685, 688, 690, 691, 732, 757, 758, 768, 780, 782, 794, 830, 831, 860, 877, 886, 909, 910, **916-1000**, Pl. 5, Pl. 6
 Hynes, H. B. N., 91, 283, 284, 311, 313, 314, 793
 Hynes, M. E., 314
 Hyocephalidae, 442, 444, 447, **503**, 504
Hyocephalus, 503
 Hyocini, 665, 667
 hypandrium, 726
Hypargyria metalliferella Ragonot, 887
Hypattalus, 647
Hypena, 912; *H. laceratalis* Walker, 912
 Hypeninae, **912**
 Hypenodinae, **912**
Hypericum perforatum (BOT.), 442, 456, 563, 678, 732, 749
Hyperion schroetteri (Schreibers), 614
 hypermetamorphosis, *see* heteromorphosis
Hyperomma, 624
Hyperomyzus lactucae (Linnaeus), 454, 455, 456
 hyperparasitism, 524, 732, 780, 928, 929, 936, 938, 939, 940, 943, 944, 945, 950, 954, 956, 960-9 *passim*; hyperparasitoids, 98
Hypertropha, 863, 864, 869; *H. tortriciformis* (Guenée), 861, 864
 Hypertrophidae, 831, 832, 859, 861, 863, **864**, 869
Hyphalus, 560, 580, 634; *H. insularis* Britton, 75
Hypharpax, 544, 547
Hypobapta eugramma (Lower), 890
Hypocaccus, 618
 hypocausta, of Neuroptera, 538
 hypochaeta, 970
Hypochrysops, 899; *H. apelles* (Fabricius), 899, Pl. 8; *H. ignita* (Leach), 899
 Hypochthonellidae, 443
Hypocysta, 897
Hypodacnella, 656
Hypogastrura, 257, 261; *H. (Ceratophysella) denticulata* (Bagnall), 261; *H. (H.) viatica* (Tullberg), 261
 Hypogastruridae, 255-60 *passim*, **261**
Hypogeococcus festerianus (Lizer y Trelles), 461
 hypognathy, 7
Hypogomphus bipunctatus (Guérin-Méneville), 509
Hypographa, 890
Hypolimnas, 898; *H. antelope* (Cramer), 101; *H. missippus* (Linnaeus), 898
Hypolycaena phorbis Fabricius, 899
 hypomeron, 546
 hypopharyngeal bracon, 678
 hypopharynx, 8
Hypopheltes, 945
 Hypophloeini, 667
 hypopleuron, 721
Hypoponera, 982, 984; *H. punctatissima* (Roger), 48
 hypoproct, 725
 hypopus (ACARINA), 980
 hypopygium, 724, 924
 hypostoma, 7, 729; hypostomal bridge, 7
Hypoxylon (FUNGI), 656
 Hypselosomatinae, **481**
 Hyspidae, *see* Aganaidae
Hypsida, 823, 892; *H. niposema* (Lower), 890
 Hypsipterygidae, 443, 481
Hypitogaster, 942, 943
 Hyptiogastrinae, 930, **942-3**
 Hyrcaninae, 482
Hyrtacus, 404; *H. tuberculatus* Stål, 397, 401
 Hystrichopsyllidae, 174, 706, 709, 710, **714**
- Iablokoff-Khznorizan, S. M., 552, 553
 Iassinidae, **471**
 Iassini, 471
Ibalia, 234, 920, 955, 956
 Ibalidae, 920, 930, 954, 955, **956**
 Iberoxeninae, 692
Icerya, 440, 458, 459, 965; *I. purchasi* Maskell, 210, 232, 458, 459, 460, 658, 778
Ichneumon, 945
 Ichneumonidae, 85, 182, 234, 524, 562, 732, 831, 919-30 *passim*, 938, 939, 941, **943-5**, 949, 960, 961, 962, 965, 969, 974, 975
 Ichneumoninae, 944, **945**
 Ichneumonoidea, 97, 175, 921, 923, 930, 935, 937, 941, **943-9**
 Ichneutinae, 947
Icta, 908; *I. fulviceps* Walker, 908
 Ictinogomphinae, 308, **309**
Ictinogomphus, 309
Ictistygna, 671
Idacarabus troglodytes Lea, 614
Idaethina, 649; *I. pilistriata* (Macleay), 648
 Ideliidae, 163
 identification, 109, 123-4
Idiaporina, 975, 976
Idiella, 710, 714; *I. caelebs* Smit, 708, 714
 idiobiont, 928
 Idiocerinae, **471**
Idioglochina, 741-2

- Idioses*, 870, 872; *I. littleri* Turner, 870
 Idiostolidae, 442, 443, **498-9**
 Idiostoloidea, 443, 445, 448, **498-9**
Idiotypa, 950
 Idolothripinae, 512, 513, **515**
Idolothrips, 513, 515; *I. spectrum* Haliday, 511, 514
Idris, 954
 Ignotalidae, 167
 ileum, 59
Illaphanus, 614
 Illidge, R., 199, 213
 Illies, J., 19, 182, 187, 311
Illiesoperla, 312-18 *passim*
 Illingworth, J. F., 210
Ima fusca Tindale, 350
 Imadaté, G., 265, 267, 268
 imaginal discs (buds), 66, 67, 248
 Imai, H. T., 989
Imma, 881, 888; *I. acosma* (Turner), 876, 880; *I. lyrifera* Meyrick, 880; *I. stilbiota* (Lower), 880; *I. vaticina* Meyrick, 876
 Immidae, 832, 855, 876, **880**, 881, 888
 Immoidea, 820, 832, 833, 847, **880**, 881
Imperata (BOT.), 897
Incisitermes, 343; *I. barretti* Gay, 343
Incolitermes, 339, 346; *I. pumilus* (Hill), 346
 Incurvariidae, 820, 826, 831, 832, 833, 842, **844**, 845
 Incurvarioidea, 174, 819, 821, 823, 824, 829, 832, 833, 837, **842-4**
Indigofera (BOT.), 897
Indjapyx, 271
Indocampa, *see* *Campodea*
Indolestes, 307; *I. obiri* Watson, 72, 307
 Indomalayan element, 181
 Infusoria (PROTOZOA), 314
 Ingram, M. J., 324
 ingroup, 118
 Inocelliidae, 521, 522, 523
 Inopeplidae, *see* *Salpingidae*
 Inopeplinae, 583, 588, 606, **669**, 670
Inopeplus, 669; *I. dimidiatus* Waterhouse, 670
Inopus rubriceps (Macquart), 723, 755
Inostemma, 952
 Inoue, H., 834
Inquilina, 1000
 inquilines, 103, 560-1; in figs, 962, 963; of ants, 262, 276, 278, 376, 386, 472, 481, 493, 560-1, 614, 618, 623, 624, 642, 644, 651, 669, 899, 971, 980, 984, 985, 986-7; of bees, 782; of termites, 262, 276, 278, 328, 339, 346, 497-8, 561, 623, 671, 749, 763, 783; of wasps, 530, 782; *see also* galls; social parasites
 insecticides, 205, 207, 225, 340; resistance to, 104, 107, 108, 241, 245
 insectivorous plants, 86-8, 493
 insects: as models or research tools, 236-51, 394; key to orders, 24
 insemination, 63
 instar, 65, 66, 350
 Integripalpia, 174, 795
 integument, 33-9
 intercalated piece, 13
 intercastes, of Isoptera, 337
 interference colour, 38
 interfrons, 718
 intermoult, 36, 37, 38
International Code of Zoological Nomenclature, 111, 121
 International Commission on Zoological Nomenclature (ICZN), 121, 123
 interneur, 548
Interpsocus, 418
 intersegmental membrane, 5
 introduction of insects (into Australia), 230-5
 invasion theory (biogeography), 181
Invasitermes, 336, 339, 340, 346; *I. inermis* Miller, 346; *I. insitivus* (Hill), 346
 invertase, 57
Investigator (ship), 202
Iphiaulax, 948
Iphiherga, 848; *I. macarista* Turner, 845, 848
Iphitrachelus, 952
Ipo pellucida (Fabricius), 472
Ipomoea (BOT.), 677; *I. batatas*, 858
Ipomyia, 749
Ippatha, 507, 509
Ips grandicollis (Eichhoff), 562, 563, 683
Ipsvicia jonesi Tillyard, 169
 Ipsviciidae, 169, 170
Irenangelus, 975, 977
 Ireson, J. E., 258
 Irian zone, 196
Irichohalticella, 961
Iridomimus, 975, 976
Iridomyrmex, 400, 561, 644, 651, 899, 985, 986, 987, 989; *I. conifer* Forel, 493; *I. cordatus* (Smith), 83; *I. glaber* (Mayr), 987; *I. humilis* (Mayr), 987; *I. purpureus* (Smith), 848, 985, 986, 987
 Iridopteryginae, 350, 353, **355-6**
Iridotaenia, 563
 Irish, J., 277
Ironomyia, 762; *I. nigromaculata* White, 762, 764
 Ironomyiidae, 734, 753, **762**, 764
 Ironside, D. A., 461
Iropoca, 908; *I. rotundata* (Walker), 907, 908
 Ischaliinae, 671
Ischiopsopha yorkiana (Janson), Pl. 4
 Ischnocera, 94, 421-6 *passim*, **427**
Ischnocoelia, 979
 Ischnopsyllidae, 95, 709, 710, 714, 715, **716**
 Ischnorhynchinae, 499, 501, **502**
Ischnotoma rubriventris (Macquart), 729
Ischnura, 303; *I. aurora* (Brauer), 303, 306; *I. heterosticta* (Burmeister), 300, 302, 306
 Ischnurinae, **306**
Isdromas, 945
Ishidaella, 470
 island biotas, 185
 Ismarinae, **950**, 951
Ismarus, 950, 951
Isocanace, 779; *I. albiceps* (Malloch), 779
 Isoderminae, 442, **497**
Isodermus, 497; *I. planus* Erichson, 497
Isodontia, 991
Isoentomon, 267; *I. pseudosaharensis* (Tuxen), 267
 Isolabellinae, 366, **367**
 Isolabidinae, 366, **367**
 isoleucine, 58
 Isometopinae, 447, 490, **492**
Isoneurothrips australis, *see* *Thrips australis*
Isonychia, 188, 281
 Isonychiidae, 285
Isoodon obesulus (MAMMALIA), 708
Isopera patricia Frison, 314
 Isopoda (isopods), 32, 97, 985
 Isoptera, 6, 7, 8, 19, 21, 24, 25, 26, 31, 34, 54-9 *passim*, 62, 77, 93, 101, 102, 103, 113, 132, **133**, 142, **166**, 179, 206, 208, 211, 216, 222, 225, 226, 231, 262, 270, 276, 278, 320, 328, **330-47**, 405, 407, 410, 478, 496, 497-8, 538, 560, 561, 614, 623, 627, 630, 631, 637, 646, 658, 671, 749, 763, 771, 782, 783, 850, 950, 985, 986, 987
Isopteron, 667
Isoscelipteron, 538
Isosticta, 307
 Isostictidae, 297, 300, 304, 305, 306, **307**
Isotobrya, 262
 Isotomidae, 143, 153, 253-9 *passim*, **261**
Isotomodes, 261
Isotomurus palustris (Müller), 261
 Issidae, 433, 443, 474, **478**, 690, 694
Italochrysa, 539
 Itämies, J., 857
 Itarini, 386
Ithome lassula Hodges, 868
 Ithomiinae, 897
Ithone, 529, 533, 535, 536; *I. fusca* Newman, 529, 535
 Ithonidae, 175, 526-33 *passim*, **535**, 536
 Ithonoidea, 531, **535**
 Ithyercidae, 565, 678
Ithystenus, 563
 Itonididae, *see* *Cecidomyiidae*
 Ivie, M. A., 641
Ixalodectes megacercus Rentz, 383
 Ixodidae (ACARINA), 968
Ixodiphagus, 968
 Jack, R. W., 72
 Jäckh, E., 851
 Jackson, D. J., 550
 Jacobsoniidae, 563, 564, 565, 582, 604, **641-2**
 Jacot-Guillarmod, C. F., 510
Jalioidea, 509
Jalmenus, 896, 899; *J. evagoras* (Donovan), 894, 899
 James, C. D., 339
 James, D. G., 107
 Jamieson, B. G. M., 126-35 *passim*
 Jander, R., 921
 Janzen, D. H., 82, 110
Jappa, 284, 287, 291, 292
Japygianus, 271; *J. wheeleri* Silvestri, 271
 Japygidae, 128, 129, 154, 269, 270, **271**
Japyx, 270
Jarabambius, 954
 Jarman, M., 627
 Jarvis, H., 212
 Jarzembowski, E. A., 166
 Jarscopidae, 170
Jasminum volubile (BOT.), 883
Javesella: J. dubia (Kirschbaum), 688, 689; *J. pellucida* (Fabricius), 690
Jeana, 841
 Jeannel, R., 244, 565
Jeannenotia violacea (Reuter), 253
 Jell, P. A., 163, 164, 172-9 *passim*
 Jenkin, M. J., 340
 Jenkins, C. F. H., 207
 Jervis, M. A., 688, 689
 Jessop, L., 507
 jewel beetles, *see* *Buprestidae*
 jewel bugs, *see* *Scutelleridae*
Johannsenomyia, 746
 John, B., 114, 380, 389-96 *passim*, 399
 John, H., 653, 657
 Johns, P. M., 325
 Johnson, B., 107
 Johnson, C., 660
 Johnson, C. G., 103, 104, 106, 829
 Johnson, N. F., 954
 Johnston, T. H., 199, 210, 212, 219
 Johnston's organ, 7, 44, 45, 129, 349, 510, 616, 719
 Jolivet, P., 678
 Jones, D., 928
 Jones, R. E., 74, 104, 246, 829
 Joosse, E. N. G., 252, 257
 Joppeicidae, 443, 493
 Jordan, K., 817, 904
 Joyce, R. J. V., 104
 Judd, W. W., 133, 350
 jugal area, 13
 jugal lobe, 14
 jugal vein, 15, 17
 Juglandaceae (BOT.), 456
 jugum, 14
 Julien, M. H., 563
Julodimorpha bakewelli (White), 632
 jumper ants, *see* *Myrmecia*
 jumping, 11, 35, 51-2, 92, 94, 155, 252, 254, 257, 273, 319, 353, 369-93 *passim*, 417, 431, 448, 464-79 *passim*, 481, 515, 547, 624, 637, 663, 675, 678, 682, 687, 688, 705, 921, 934, 957, 967
 Juncaceae (BOT.), 84, 857, 873
Juncus (BOT.), 864, 887
 Jurassic Period, 141, 142, 144; in Australia, 179, 194
 Jurodidae, 178
 juvenile hormone, 50, 65-6, 104, 337
 juxta, of Lepidoptera, 822

- Kahan, D., 758
kala-azar, *see* leishmaniasis
Kaligrammatidae, 175
Kallitambinia australis Muir, 475, 476, 478
Kalmia (BOT.), 494
Kalmring, K., 376
*Kaloterme*s, 341, 342-3; *K. aemulus* Sewell and Gay, 343; *K. atratus* Hill, 342, 343; *K. banksiae* Hill, 343; *K. hilli* Emerson, 343; *K. rufinotum* Hill, 335, 343; *K. serrulatus* Gay, 343
Kalotermitidae, 332-41 *passim*, **342-4**
Kalshoven, L. G. E., 870
Kaltenbach, A., 696
Kalugina, N. S., 174
Kamiidae, 164
Kammer, A. E., 53
Kamp, J. W., 364
Kanamitsu, K., 563, 624
Kano, R., 782
Kapur, A. P., 464
Karabasiidae, 171
Karataothripidae, 169
Karataviidae, 175
Karny, H. H., 380
Karnyothrips, 515
Karuminae, 562
karyotype, 256, 336, 350, 358, 362-3, 371-2, 396, 437, 555-6, 700, 728, 987
Kasap, H., 551, 555, 672, 678
Kasserota, 479
Kassulke, R. C., 494
Kasule, F. K., 624
Kaszab, Z., 660, 668
katatertgite, 721
katepimeron, 10
katepisternum, 10
Kateretinae, 599, **650**
Kathirithamby, J., 684-95 *passim*
Katianna, 253, 255, 263, 264
Katianninae, 255, **263-4**
katydids, *see* Tettigoniidae
Kaufmann, T., 548
kauri moths, *see* Agathiphagidae
Kavanaugh, D. H., 562, 614
Kaveinga, 611
Kawamoto, F., 830
Kay, B. H., 104
Keast, A., 182, 193, 195, 294, 330, 340, 731, 733
keds, *see* Hippoboscidae
Keil, C. B., 323
Keilin, D., 730
Keiraninae, **965**
Kéler, S. von, 3, 427
Kelerimenopon, 423
Kellner-Pillaut, S., 144
Kelsey, L. P., 757
Kelton, L. A., 489
Kemmer, N. A., 658
Kempyninae, 528, 536, **537**
Kempynus, 536, 537
Kennedia (BOT.), 854; *K. rubicunda*, 83
Kennedy, G. G., 104
Kennedy, J. S., 103, 104, 105
Kennedyomorpha, 161
Kent, D. S., 772
kentromorphism, 101, 399, 400, 829
keratin, 830, 850
Kerkut, G. A., 33
Kermes, 458; dyes, 442, 458
Kermesidae, 443, 458
Keroplastinae, **751**
Keroplatus: *K. (Heteropterna)*, 750; *K. marsei* Skuse, 719
Kerr, R. W., 251, 708
Kerria, 458, 464; *K. lacca* (Kerr), 464
Kerrich, G. J., 956
Kerriidae, 443, 458, 460, **464**
Kershaw, A. P., 193, 195
Kershawia, 561, 581
Kerzhner, I. M., 444, 491
Kessel, E. L., 762
ketones, 229, 554, 906
Kevan, D. K. McE., 134, 325, 348, 359, 360, 362, 365, 369, 378, 382, 384, 387, 389, 400
Key, K. H. L., 119, 213, 243, 348, 369, 377, 388-94 *passim*, 399, 400, 401
Keyacris: *K. marcida* Rehn, 243; *K. scurra* (Rehn), 243, 388
Khoo, K. C., 777
Kierych, E., 956
Kiestler, A. R., 513
Kifune, T., 668, 685, 688, 689, 692
Kikkawa, J., 184, 195
Kim, K. C., 93, 95, 136, 421, 426
Kimmins, D. E., 535, 536, 790, 801
Kimminsoperla, 318
Kimsey, L. S., 973
kinetodontium, 151
king (Isoptera), 330, 334, 336
King, D. R., 81
King, K. L., 257, 261
King, M., 389
King, P. P., 199, 202, 203, 204, 205
King, R. C., 136, 137
King, R. L., 199, 204, 205
king crickets, *see* Deinacridinae
Kingolus, 634
Kingsland, S. E., 239, 245
Kingsolver, J. G., 149
kinins, 229
Kinnaridae, 443
Kinzelbach, R. K., 178, 685-95 *passim*
Kirejtshuk, A. G., 650
Kiriakoff, S. G., 906, 908, 914
Kirk, W. D. J., 511, 512, 513, 515
Kirkaldy, G. W., 504
Kirkaldyella, 493
Kirkpatrick, J. B., 195
Kirkpatrick, T. W., 687, 689
Kirrama, 318
Kirrara, 284, 291, 292; *K. procera* Harker, 283
Kissinger, D. G., 682
Kistner, D. H., 339, 561, 614, 623, 627
Kitching, I. J., 113, 897, 909, 910, 912, 914
Kitching, R. L., 246, 472, 473, 624
Kitsonia, 507
Klag, J., 265
Kleidotoma, 956
Kleinow, W., 362, 363
Klimeschia, 852
Klots, A. B., 822
Klug, A., 248
Kluge, A. G., 118
Knerer, G., 993, 998
Knight, W. J., 468, 471
Knipscher, R. C., 113
Knox, R. B., 81
Knülle, W., 135
Knutson, L., 112, 768
Koch, A., 560
Koch, L. E., 119, 182, 542
Koebele, A., 199, 210, 459
Kochl, M. A. R., 149
Kogan, M., 685
koinobiont, 928
Kokiriidae, 787, 788, 793-9 *passim*, 806, **809**, 812, 815
Kolbe, H., 565
Kongobatha, 355; *K. diademata* Hebard, 351
Königsmann, E., 936, 938, 941, 954, 978
Kononova, E. L., 170
Koornonga, 292; *K. inconspicua* (Eaton), 284, 292
Kormilev, N. A., 171, 488, 497
Korynetinae, **646**
Kosciuscola tristis Sjöstedt, 377, Pl. 2
Kosztarab, M., 457, 461, 462, 464
Koteja, J., 170, 196, 458, 461, 463
Kovalev, V. G., 174
Kozlov, M. A., 174, 953
Krampl, F., 879
Krantz, G. W., 24, 560
Kreusler, Mrs. 205
Krikken, J., 631
Krishna, K., 166, 330, 339, 344
Kristensen, N. P., 110, 125-40 *passim*, 172, 176, 178, 244, 400, 444, 691, 817, 825, 833-40 *passim*, 893, 895
Krivoshaina, N. P., 771
Kröber, O., 768
Krombein, K. V., 916, 974
Kruskal, J. B., 116
Kryzhanovsky, O. L., 611
Kugler, C., 989
Kuhl, W., 362
Kühne, W. G., 143
Kukalova americana Demoulin, 160
Kukalová-Peck, J. (Kukalová, J.), 12, 13, 15, 110, 118, 126-34 *passim*, 141-78 *passim*, 193, 297, 548, 632, 685
Kukaloviidae, 151
Kullenberg, B., 491
Kumada, N., 830
Kumar, R., 495, 496, 499, 503, 507, 508
Kumaressa, 442, 497; *K. scutellata* Monteith, 497
Kumata, T., 854
Kuroko, H., 858
kurrajong, *see* *Brachychiton populneum*
Kuschel, G., 178, 194, 650, 672, 676, 679, 680, 682
Kuwayama, S., 519
Kyrki, J., 851, 855, 857, 880
La Billardièrre, J.-J. H. de, 199, 201, 236
La Coquille (ship), 201
La Greca, M., 131, 350
La Rivers, I., 488
Laan, P. A. van der, 465
Labandeira, C. C., 143, 155
Labdia, 868; *L. leucombra* (Meyrick), 868
labella, 9
Labena, 945
Labeninae, 930, **944-5**
Labia, 367
labial kidneys, 272, 276
Labiatelyridae, 166
Labidura: *L. riparia* (Pallas), 362, 363; *L. truncata* Kirby, 360-4 *passim*, 367
Labiiduridae, 167, 360, 361, 364, 366, **367**, Pl. 2
Labiidurinae, **367**
Labiduromma, 167
Labiidae, *see* Spongiphoridae
Labiinae, 366, **367**
Labioidae, *see* Spongiphoroidea
labium, 8
Labium, 945
Laboulbenia (FUNGI), 987
Laboulbeniales (FUNGI), 732
Labradorocoleidae, 178
labrum, 8
lac insects, *see* Kerriidae
laccic acid, 464
Lacciferidae, *see* Kerriidae
Laccorinae, 488
Lacconotinae, 577, 606, 666, **668**
Laccotrepes tristis Stål, 486
lace bugs, *see* Tingidae
lacewings, *see* Neuroptera
Lachesillidae, 169, 416, 418, **419**
Lachninae, 454
lacinia, 8
lacinia mobilis, *see* prostheca
Lack, D., 245
Lactura, 855, 877, 878; *L. caminua* Meyrick, 878; *L. suffusa* (Walker), 876, 878
Ladiges, P. Y., 117, 196
Ladora, 954
ladybird beetles, *see* Coccinellidae
Laemobothriidae, 422, 423, 426, **427**
Laemobothrion, 423, 427; *L. atrum* (Nitzsch), 427; *L. tinnunculi* (Linnaeus), 422
Laemophlebiae, 545, 565, 573, 575, 588, 597, **651**, 652

- Laemophloeus*, 651; *L. amabilis* Olliff, 652
Lagarosylla, 714, 716; *L. mera* Jordan and Rothschild, 95, 716
Lagomorpha (MAMMALIA), 428
Lagriidae, *see* Tenebrionidae
Lagriinae, 662, 665, 666, **667**
Lagriini, 665, 667
Lagrioida, 574, 606, 660, 671; *L. australis* Champion, 670, 671
Lagrioidinae, 563, 670, **671**
Lagriomorpha, 671
Lagynodinae, **940-1**
Laius, 647
Lallemand, V., 478
LaMarche, V. C., 80
Lamb, R. J., 362
Lambdin, P. L., 461, 462
Lambeck, K., 195
Lambertia formosa (BOT.), 863
Lambkin, K. J., 176, 478, 525, 538
Lameere, A., 15, 565
Lamiaceae (BOT.), 852
Lamiinae, 672, **673-4**, Pl. 4
laminatentoria, 6
Lamingtoniidae, 563, 565, 572, 590, 649, **653-4**, 655
Lamingtonium binnaburrense Sen Gupta and Crowson, 654, 655
Lamprima, 626; *L. aurata* Latreille, 553, Pl. 4
Lampriminae, 563, **626**
Lamproblattinae, 327
Lamprogaster, 770; *L. violacea* Malloch, Pl. 5
Lamprolina, 678
Lamprolonchaea, 770; *L. brouniana* (Bezzi), 770, 774
Lampromicra, 508; *L. senator* (Fabricius), Pl. 3
Lamprophorella, 367
Lamprosomatini, 677
Lampyridae, 60, 92, 556, 559-66 *passim*, 570, 583, 588, 590, 638, 639, **640**
land-bridges, 181
Landa, V., 285, 286
Landrevini, 386
Landsberg, J., 111
Lane, D. J., 244
Lanelater mastersi (Macleay), 638
Langor, D. W., 550
Languriidae, 94, 565, 576, 578, 586, 603, 604, 605, **654**, 655, 659
Languriinae, 578, 603, 604, **654**, 655
Lanham, U. N., 993
Lansbury, I., 429, 482, 485, 486, 487, 488, 503
Lantana (BOT.), 442, 494, 677, 775, 840, 873, 912, 914; *L. camara*, 563
lantern flies, *see* Fulgoridae
Lanternarius gemmatus (Horn), 40
Laphria, 758; *L. hirta* Ricardo, Pl. 5
Laphriinae, **758**
Laphyragoginae, 990
Larainae, 569, 570, 633, **634**
Larentiinae, 889, **891**
Largidae, 429, 443, 499, 502, **503**, Pl. 3
Larink, O., 130
Larinotus, 598, 645; *L. umbilicatus* Carter and Zeck, 645, 646
Lariophagus, 965
Larix (BOT.), 456
Larra, 990, 991, 993
Larrinae, 92, 990, **991**, 992, 993
Larrini, 990, 991
Larsén, O., 546, 609
Larsen, O. N., 45
Larsson, S. G., 196
larva, 65-6; acephalic, 729; apodous, 557, 687, 925; campodeiform, 528, 557; caudate, 925; coarctate, 668; cyclopid, 925, 952; debris-carrying, 415, 528, 539, 540, 561, 677; encyrtiform, 925; eruciform, 557, 699, 817, 925; eucephalic, 729; eucolliform, 925, 954; fossil, 151-2, 171; hemicephalic, 729; hymenopteriform, 925, 952; Kinzelbach's primary, 687; mandibulate (Hymenoptera), 925; microtype, 925; mucus-covered, 677, 682, 934; myrmariiform, 925; onisciform, 557, 898; polypodeiform, 925, 954; polypodous, 152, 162; sacciform, 925; scarabaeiform, 528, 535, 557, 699; teleaform, 925, 952; vesiculate, 925; *see also* planidium; triungulin
larval heteromorphosis, *see* heteromorphosis
larviform insects, 393; females, 453, 457-63 *passim*, 562, 642, 664, 685-6; *see also* neoteny
larviparity, *see* viviparity
LaSalle, J., 967
Laseron, C., 195
Lasiacantha lei (Hacker), 493
Lasiocampidae, 830, 832, 899, **900**, 901, 902
Lasiocampinae, **900**
Lasiochilinae, **489**
Lasiochilus femoralis Gross, 489
Lasiodactylus, 649, 659
Lasioderma serricorne (Fabricius), 644, 646
Lasioglossum, 998
Lasiopsylla roundipennis Froggatt, 451
Lasius niger (Linnaeus), 624
L' Astrolabe (ship), 201
laterope, 923
laterosternites, 10, 550, 923
laterotergites, 550, 721, 923
latex, 449
Latheticus oryzae Waterhouse, 667
Lathiceridae, 378
Lathrecista, 310
Lathridiidae, 547, 565, 582, 601, 657, **660**
Lathridiinae, **660**
Lathridius minutus (Linnaeus), 660
Lathrobium, 624
Lathrotelidae, 832
Latometa, 665
Latrodectus (ARANEAE), 962
Lattin, J. D., 435, 491
Laulla, 561
Laughlin, R., 513
Lauraceae (BOT.), 895
Laurasia, 191, 192
Laurentidiptera gallica (Laurentiaux and Grauvogel), 173, 174
Lauterbach, G., 686
Lauterbach, K.-E., 127
Lauterer, P., 450
Lauxaniidae, 734, 765, **770**, 773
Lauxanioidea, 768
Lawitzky, G., 921
Lawrence, J. F., 3, 24, 117, 120, 176, 182, 543, 544, 558, 560, 561, 565, 584, 586, 588, 607, 608, 609, 617, 618, 625, 626, 631-45 *passim*, 650, 651, 654, 656, 657, 660-72 *passim*
Lawrencella, 656
Lawson, E. Q., 323
Lawson, F. A., 323, 350
Lawton, J. H., 78, 247
Laxta, 323, 329; *L. granicollis* (Saussure), 321, 326, 329
Le Quesne, W. J., 118
Lea, A. M., 199, 207, 208, 211, 215, 559, 613, 620, 634, 640, 644, 649, 653-8 *passim*, 663, 668, 671, 678, 682, 685, 692
Leach, J. A., 89
Leader, J., 74
leaf beetles, *see* Chrysomelidae
leaf insects, *see* Phylliinae
leaf litter: as food, 329, 346, 560, 677, 760, 841, 860, 869, 873, 887, 910, 935; as habitat, 74, 256, 257, 260-6 *passim*, 273, 276, 278, 329, 357, 386, 389, 391, 399, 404, 407, 409, 414-20 *passim*, 440, 459, 480, 481, 482, 493, 502, 515, 523, 530, 540, 542, 618, 619, 621, 623, 624, 625, 634, 636, 640, 645, 646, 649-58 *passim*, 660, 664, 665, 671, 672, 700, 704, 762, 770, 772, 831, 843, 850, 870, 887, 925, 928, 940, 941, 943, 945, 950, 953, 965, 971, 973, 974, 990
leaf-mining insects, 80, 175, 632, 676, 677, 680, 682, 731, 732, 775, 778, 817, 825, 829, 830, 831, 837, 841-4, 851-65 *passim*, 868, 869, 873, 882, 885, 925, 928, 930, 931, 934, 935, 944, 945, 948, 956, 965, 968, 969
leaf-rollers, 680, 831, 853, 873, 892, 893, 930, 932, 944, 945, 973
leaf-rolling crickets, *see* Gryllacrididae
leaf-tiers, 830, 831, 844, 850, 860, 862, 863, 864, 868, 869, 873, 880, 883, 885, 886, 893
leafcutting bees, *see* *Megachile*
leafhoppers, *see* Cicadelloidea
leafrollers, *see* Tortricidae
Leatiopria, 950
Leana australis (Erichson), 496
learning by insects, 242, 248, 249
Leasia, 678
Leba, 680
Lebiini, 562, 589, 613, 614
Lecanodiaspididae, 443, 458, **461**, 462
Lecanodiaspis, 461; *L. acaciae* (Maskell), 462
Lechria, 741
Lechriini, 741
Lecithocera, 869; *L. micromela* (Lower), 869
Lecithoceridae, 831, 832, 860, 862, 865, 866, **869**
Lecomte, J., 21
Leconte, O., 322
lectins, 62
lectotype, 122, 123
Lectrides varians Mosely, 814
Ledrinae, **469-70**
Ledrini, 469-70
Ledromorpha planirostris (Donovan), 470
Lee, B., 658
Lee, B. T. O., 251
Lee, C. E., 493, 497
Lee, D. J., 211, 212, 217, 226, 732, 744, 830
Lee, K. E., 330, 340
leeches, as prey, 616
Lefkoviitch, L. P., 651
leg groundplan, 144-6
leg muscles, 36, 51, 52
Legner, E. F., 624
legs, 11-12; chelate, 798, 971; cursorial, 11; fossorial, 11, 370, 431, 438, 459, 547, 977; gressorial, 11, 370; natatorial, 11, 73, 370, 547; raptorial, 11, 91, 349, 370, 430, 480, 486, 488, 496, 527, 538, 697, 723, 921; saltatorial, 11, 370; subchelate, 798
legumes, 503, 504, 515, 680, 770, 868, 869, 887, 889, 897; *see also* families
Leichenini, 667
Leichhardt, L., 199, 202
Leiochrini, 598, 665, 667
Leiodidae, 93, 94, 544, 558, 563, 564, 571, 572, 573, 580, 582, 586, 597, 598, 603, 604, **619-21**, 653
Leiodinae, **620-1**
Leiomyza, 777; *L. nitidula* Malloch, 776
Leiothron, 948
Leioproctus, 995; *L. (Cladocerapis)*, 994; *L. megachalcoides* Michener, 997
leishmaniasis, 732, 747
Leleupidiini, 613
Lema trilineata Olivier, 677
Lemma, 646; *L. subaenea* Gorham, 646
Lemmaophora typa Carpenter, 163
Lemodes, 671; *L. mastersi* Macleay, Pl. 5
Lemodinae, 603, **671**
Lemoniidae, 832
Lentulidae, 378
Lentzios, G., 729
Lenz, M., 336, 340
Leoglymmius, 611; *L. lignarius* (Olliff), 610
Leotichius, 485
Lepanus, 630
Lepesme, P., 563
Lepidota, 562
Lepidocampinae, 271

- Lepidocyrinae, **261**
Lepidocyrtus, 262
Lepidogryllus, 386; *L. comparatus* (Walker), 385
Lepidophorella, 262, 263
Lepidophthirus macrorhini Enderlein, 69, 424
Lepidopsocidae, 412, 413, 416, **417**
Lepidoptera, 9, 12, 14, 20, 23-30 *passim*, 35-72 *passim*, 77, 78, 80, 82, 85, 88-113 *passim*, 133, **140**, 142, 144, 172, **174-5**, 182, 202-7 *passim*, 213, 214, 222-9 *passim*, 232, 251, 441, 442, 461, 489, 530, 535, 556, 614, 640, 690, 696, 698, 700, 757, 758, 762, 783, 784, 787, 793, **817-915**, 916, 938, 940, 944, 945, 948, 949, 954, 960, 961, 962, 965, 967, 968, 969, 973, 979, 980, 987, 991, Pl. 6, Pl. 7, Pl. 8
Lepidopteryx: *L. (Leperina)*, 645
L. decorata (Erichson), 553; *L. turbata* (Pascocoe), 646
Lepidoscia, 821, 849, 854; *L. arctiella* (Walker), 848
Lepidosinella, 262
Lepidosperma (BOT.): *L. carphoides*, 874; *L. viscidum*, 874
Lepidosternopsis, 973
Lepidostomatidae, 795
Lepidothrichidae, 130, 275, 276, 277, 278
Lepinotus, 415; *L. inquilinus* Heyden, 417; *L. reticulatus* Enderlein, 417
Lepisma, 130, 278; *L. (Tricholepisma)*, 278; *L. saccharina* Linnaeus, 277
Lepismatidae, 126, 128, 130, 275, 276, 277, **278**
Lepismodes, 276; *L. inquilinus* Newman, 276, 277
Lepispilus, 667
Lepneva, S. G., 801
Leptacis, 952
Leptalis, 237
Leptanilla, 983, 984, 989
Leptanillinae, 983, **987**, 989
Leptidae, *see* Rhagionidae
Leptinae, 93, 621
Leptobatopsis, 945
Leptocera, 772, 774
Leptoceridae, 174, 788-800 *passim*, 805, 808, 813, 814, 815, **816**
Leptocerinae, **816**
Leptoceroidea, 795
Leptocircini, 895
Leptocneria, 908, 909; *L. reducta* (Walker), 830, 908
Leptoconops, 746
Leptocoris, 504; *L. mitellatus* Bergroth, 441; *L. rufomarginata* (Fabricius), 506
Leptocorisa, 439; *L. acuta* Thunberg, 504, 506; *L. oratorius* (Fabricius), 504
Leptofoeninae, **963**
Leptogaster, 757, 758
Leptogasterinae, **758**
Leptogenys, 984, 985, 989
Leptoglossus gonagra (Fabricius), 504, 505
Leptohyphidae, 285
Leptomastix, 967
Leptomymex, 402, 984, 985, 989
Leptonychotes weddellii (MAMMALIA), 68
Leptoperla, 318
Leptophon, 945
Leptophlebiidae, 160, 179, 279-87 *passim*, **290-3**
Leptophlebioidea, 285, **290-3**
Leptopilina, 955; *L. bourlardi* Barbotin, Carton and Kelner-Pillault, 956
Leptopius, 559, 563, 681, 682, 948
Leptopodidae, 443, **485**
Leptopodoidea, 434, 443, 445, 447, **485**
Leptopodomorpha, 171, 443, 445, 480, 481, **482**, **485**
Leptopsylla, 714; *L. segnis* (Schönherr), 715, 716
Leptopsyllidae, 710, 714, 715, **716**
Leptospermum (BOR.), 194, 449, 456, 461, 502, 618, 700, 753, 805, 848, 860, 887, 890, 908, 935, 952, 967, 980, 994; *L. flavescens*, 890; *L. scoparium*, 461
Leptotarsus, 741; *L. imperatorius* (Westwood), 740, 741
Leptotyphlinae, **622**
Lepturinae, 563, 673
Leptus (ACARINA), 377
Leptynoptera sulfurea Crawford, 450
lerp, 93, 438, 448-50, 451
lerp insects, *see* Psyllidae
lesser house fly, *see* *Fannia canicularis*
Lestage, J. A., 289
Lestes concinnus Hagen in Selys, 307
Lestica, 991
Lestidae, 72, 179, 300-6 *passim*, **307**, Pl. 1
Lestinae, 305, **307**
Lestis, 999; *L. aeratus* Smith, Pl. 5
Lestodiplosis, 749
Lestoidea, 297, 304, **307**
Lestoidea, 307; *L. barbarae* Watson, 305
Lestoideidae, 304, 305, 306, **307**
Leston, D., 479, 496, 508
Lestonia: *L. grossi* McDonald, 507; *L. haustorifera* China, 507
Lestoniidae, 442, 444, 505, **507**
Lestremia, 749
Lethaeini, 502
Lethocerinae, **487**
Lethocerus, 91, 487, 508; *L. distinctifemur* Mencke and Stange, 487; *L. insulanus* (Montandon), 487
lettuce, pests of, 455
Leucaena leucocephala (BOT.), 231, 449, 868
Leuchart, R., 237
leucine, 58
Leucohimatium, 604, 654; *L. arundinaceum* Forskål, 654
Leucopenga albofasciata (Macquart), 778
Leucophoropterini, 493
Leucopsis, 769
Leucopogon (BOT.), 456; *L. attenuatus*, 881; *L. richei*, 201; *L. virgatus*, 83
Leucopsina, 756; *L. odyneroides* Westwood, Pl. 6
Leucoptera, 858, 861; *L. daricella* (Meyrick), 858
leucopterin, 40
Leucopterinae, *see* Cemiostominae
Leucospidae, 921, 925, 930, 957, 958, 960, **961**
Leucospis, 961; *L. giraulti* Bouček, 960
Leuctridae, 314
Leuoperna sera (Meyrick), 856, 857
Levinton, J., 110
Lewin, J. W., 199, 202
Lewin, R., 120
Lewis, D. J., 747
Lewis, E. E., 448
Lewis, J. H., 705, 710
Lewis, R. E., 705, 710
Lewis, S. E. L., 166
Lewis, T., 78, 510, 512, 513
Lewisiium, 657
Lewontin, R. C., 241, 251
Li, C. S., 277
Liadopsylla, 170
Liadytidae, 178
Liassocadada, 170
Liassogomphidae, 162
Liassothrips, 169
Libellulidae, 49, 298, 301, 302, 304, 305, 308, **310**, Pl. 1
Libellulinae, **310**
Libelluloidea, 297, 304, **309-10**
Librella, 767, 778
Libythea, 897; *L. geoffroy* Godart, 894, 898
Libytheidae, *see* Nymphalidae
Libytheinae, **898**
lice, *see* Phthiraptera
lichen, 68, 77, 273, 313, 389, 407, 409, 415, 420, 664, 665, 848, 851, 862, 863, 887, 909, 910
Lichenaula, 862; *L. choriodes* Meyrick, 861, 862; *L. lichenea* Meyrick, 862
Licini, 612
Liebher, J. K., 562, 614
light-brown apple moth, *see* *Epiphyas postvittana*
light production, 60, 640
lignin, 336
ligula: of mouth-parts, 8, 917; of genitalia, 299
Ligustrum (BOT.), 904
Ligyra, 759
Lilaea, 755
Liliaceae (BOT.), 682
Liliceris nigripes (Fabricius), 677
Lilliputocorini, 502
Limacodidae, 27, 226, 228, 829, 830, 831, 832, 876, 877, **878-9**, 962, 973, Pl. 7
Limnaecia, 868; *L. cirrhozona* Turner, 866, 868; *L. phragmitella* Stainton, 868
Limnebiidae, *see* Hydraenidae
Limnebius, 619
Limnephilidae, 139, 788, 792-9 *passim*, 804, **805**, 812
Limnephiloidea, 792-7 *passim*, **805-16**
Limnichidae, 75, 117, 560, 563, 564, 569, 570, 580, 586, 595, 632, 633, **634**
Limnichus australis Erichson, 633
Limnocentropodidae, 795
Limnocorinae, 488
Limnogonus, 485; *L. luctuosus* (Montrouzier), 484
Limnophila, 742
Limnophora nigriorbitalis Malloch, 780
Limonia, 741; *L. (Dicranomyia)*, 741; *L. (Geranomysia)*, 741
Limoniinae, 728, 740, **741-2**
Limoniini, 741-2
Limothrips, 515; *L. cerealium* (Haliday), 513
Limulodidae, *see* Ptiliidae
Lin, Q.-B., 166
Lincoln, R. J., 82
Lindberg, H., 690
Lindera tessellatella Blanchard, 850
Lindner, E., 717
Lindroth, C. H., 553
Lingora, 799
lingula, of Aleyrodidae, 452
Linnaeus, C., 93, 114, 119, 120, 121, 200, 201, 236
Linnean societies: (London), 200, 202, 203; N.S.W., 203, 236
Linognathidae, 426, 427, **428**
Linognathus, 428; *L. ovillus* (Neumann), 428; *L. pedalis* (Osborn), 424, 425, 428; *L. setosus* (Olfers), 428; *L. stenopsis* (Burmeister), 428; *L. vituli* (Linnaeus), 428
Linsley, E. G., 664, 687, 689
Liomopteridea, 163
Lioponera, 987
Lioprosopa, 887
Liopteridae, 930, 955, **956**
Liopterinae, 956
Liorhysus hyalinus (Fabricius), 504
Lipaphis erysimi (Kaltenbach), 455
Liparetrus, 563, 630
Liparochrus, 627
liparostict Scarabaeidae, 628
lipase, 53, 57
Lipeurus caponis (Linnaeus), 427
Liphya brassolis Westwood, 894, 899
Liphyrinae, **899**
lipids, 33, 34, 50, 58, 60, 61
lipoproteins, 33, 58, 61
Liposcelidae, 136, 412, 416, **417-18**
Liposcelis, 412, 413, 415, 417; *L. bostrychophilus* Badonnel, 415, 417
Lipteninae, 899
Liriomyza, 92
Liris, 991
Liske, E., 352
Lispe, 780
Lispinae, *see* Coenosiinae

- Lisποτεleia*, 954
Lissimas, 755
Lissodema, 671
 Lissominae, **638**
Lissomus, 638
Lissonota, 945
Lissopimpla, 944; *L. excelsa* (Costa), 85, 926
Lissotes, 626
Lissothrips, 515
Listriomastax, 779
Listroderes difficilis Germain, 562, 682
Listronotus bonariensis (Kuschel), 682
 Listroscelidinae, 380, 383, **384**
Litargus, 660; *L. balteatus* LeConte, 660; *L. multiguttatus* (Lea), 661
Litembia, 165
 Lithocolletinae, 853, **854**
 Lithopanorpidae, 172
 Lithosiinae, 909, **910**
Lithosticta, 307
Lithurge, 994, 999
 Lithurginae, **999**
Litochrus, 584, 653; *L. major* Blackburn, 652
Litsea (BOT.), 895
 littoral insects, 68, 256, 261, 482-8 *passim*, 616, 619, 634, 635, 649, 665, 700, 777, 779, 787, 925; beach, 75, 618, 623, 624, 665, 671, 682, 746, 755, 756, 758, 769, 779, 780; coral, 256, 260, 483, 485, 634, 925; coralline algae, 74, 807; debris, 777, 779; estuarine, 303, 746, 779; intertidal, 75, 256, 476, 483, 484, 485, 619, 634, 669, 744, 746, 779, 787, 795, 807, 985; mangrove, 226, 343, 478, 640, 770, 779, 870, 883, 899, 985; sand dunes, 647, 665, 671, 682, 756, 770, 779, 975; seaweed, 619, 623, 624, 769, 779, 780; *see also* aquatic insects; marine insects
 liverworts, *see* Hepaticae
 livestock, pests of, 425, 427, 428, 708, 732, 744, 746, 755, 780, 782, 784-5
Lixus mastersi Pascoe, 682
Lizerius, 456
 Lloyd, F. E., 88
 loaiais, 755
Lobelia (BOT.), 914
Loberus, 654
Lobesia, 873
 Löbl, I., 641, 642
 Loboceratinae, 934
Lobogethes, 891; *L. interrupta* Warren, 890, 893
Loboglossa, 566; *L. australica* Champion, 668
Loboscelidia, 972
 Loboscelidiinae, 970, 972, **973-4**
 Lochmostyliinae, *see* Ctenostyliidae
 Locke, M., 34
Locusta, 43, 57; *L. migratoria* (Linnaeus), 34, 40, 47, 242, 770; *L. migratoria migratorioides* Reiche and Fairmaire, 377, 378, 391
 Locustinae, *see* Oedipodinae
 Locustopseidae, 164
 locusts, 21, 104-8 *passim*, 231, 337, 369, 377, 389, 391, 647, 758, 954; swarms, 104, 107, 377; *see also* Acrididae
 Loevtrup, S., 112
 loganberries, pests of, 934
Lomamyia, 530
Lomandra (BOT.), 677, 887, 893; *L. banksii*, 668; *L. longifolia*, 869
Lomaptera, 631
Lomatia myricoides (BOT.), 853
 Lomatiinae, **759**
Lomera, 848, 849, 852
 Lomholdt, O. C., 936, 990, 993
Lonchaea, 770
 Lonchaeidae, 734, 765, **770**, 774
Lonchocarpus blackii (BOT.), 508
 Lonchodinae, 396, 400, **404**
Lonchoptera furcata (Fallen), 762
 Lonchopteridae, 729, 734, 752, **762**
 Lonchopteroidea, 734, **762**
 long-horned beetles, *see* Cerambycidae
 long-horned grasshoppers, *see* Tettigoniidae
 longevity, 34, 102, 103, 256, 273, 276, 281, 283, 303, 336, 358, 363, 384, 424, 465, 518, 523, 529, 541, 690, 700, 708, 731, 980, 983
 longicorn beetles, *see* Cerambycidae
Longitarsus jacobaeae (Waterhouse), 563, 678
 Longstaff, B. C., 391
 loopers (caterpillars), 889
Lophioneura, 169
 Lophioneurina, 168, 169
 Lophocateridae, *see* Trogossitidae
 Lophocaterinae, 571, 572, 588, 598, **645**
Lophocorona, 836, 837, 838; *L. astiptica* Common, 836; *L. melanora* Common, 839; *L. pediasia* Common, 839
 Lophocoronidae, 138, 831, 832, 833, 836, **837**, 838, 839
 Lophocoronina, 819, 832, **837**
 Lophocoronoidae, 832, **837**
 Lophopidae, 443, 474, 478, **479**
Lophops saccharicida Kirkaldy, 478, 479
Lophoptera vittigera Walker, 914
Lophostemon (BOT.), 842, 863
Lophotermes, 346; *L. quadratus* (Hill), 346
Lophytoma interrupta (Klug), 88, 935
 lophytotomin, 88
 loquat, *see* *Photinia*
 Loranthaceae (BOT.), 213, 874, 897, 899, 900, 904, 908
 Lord Howe I., 169, 182, 192, 274, 278, 386, 404, 464, 480, 497, 530, 634, 640, 642, 979
 lorun, 429
 Lotka, A. J., 245
 Loudon, B. J., 749
 Louis, D., 495
 Louriciinae, **963-4**
 louse flies, *see* Hippoboscidae
 Lovelock, M., 336
 Lower, H. F., 457, 472
 Lower, O. B., 199, 214
 Lowman, M. D., 678
Loxoblemmus, 386
Lubra spinicornis (Walker), 473
 Lucanidae, 9, 545, 553, 559, 560, 563, 564, 566, 568, 588, 600, 602, **625-6**, Pl. 4
 Lucaninae, **626**
 Lucas, T. P., 199, 213
 lucerne, pests of, 108, 455, 493, 513, 562, 873, 887, 899, 929, 962, 970
 lucerne flea, *see* *Sminturus viridis*
 lucerne leaf-roller, *see* *Merophyas divulsana*
Lucilia, 57, 64, 110; *L. cuprina* (Wiedemann), 110, 219, 240-1, 246, 248, 729, 732, 782; *L. sericata* (Meigen), 782
Luciola, 639, 640; *L. lychnus* (Olliff), 638; *L. olivieri* (Lea), 566
 Ludwig, H. W., 136, 421, 426
Ludwigia (BOT.), 680
 luminescence, 60, 640, 751
 Luna De Carvalho, E., 687, 688, 694
 Lupropini, 667
Lutra canadensis (MAMMALIA), 427
 Lutrochidae, 117, 564, 632
 Lutz, H., 178
 Luykx, P., 336
 Lyal, C. H. C., 136, 412, 422, 423, 426, 427, 510
 Lycanidae, 825, 829, 832, 894, 895, 896, **898-9**, 987, Pl. 8
 Lycaninae, 899
Lychnocolax, 693, 694
 Lycidae, 100, 547, 550, 556, 558, 561, 562, 564, 566, 570, 583, 584, 589, **638-40**, 668, 673, 680, Pl. 6
 Lycopodiophyta (BOT.), 143, 144
Lycoposylla, 711, 714; *L. nova* Rothschild, 712
 Lycoposyllinae, 709, **714**
Lycoriella agarici Loudon, 749
 Lycoriidae, *see* Sciaridae
 Lycorininae, **945**
 Lycosidae (ARANEAE), 975
 Lyctidae, *see* Bostrichidae
Lyctinae, 577, 601, 605, **642-3**, 948, 965
 Lyctocorinae, **489**
Lyctocoris campestris (Fabricius), 442, 489
Lyctodon, 642
Lyctus, 642, 651; *L. brunneus* (Stephens), 642, 643, 948
 Lyell, G., 199, 214, 215
 Lygaeidae, 55, 94, 107, 108, 212, 227, 433, 434, 435, 439-43 *passim*, 493, 496, 497, **499-503**, 692, 693, Pl. 3
 Lygaeinae, 499, **502**
 Lygaeoidea, 440, 443, 445, 447, 448, **499-503**
 Lygistorrhinae, **751**
Lymantria, 908
 Lymantriidae, 228, 819, 826, 830, 831, 832, 905, 906, 907, **908**, 909, 912, 913
 Lymbery, A., 376
 Lymexyloidea, 560-6 *passim*, 570, 583, 599, 600, **644**, 645, 663, 691
 Lymexyloidea, 564, **644**
 Lynch, J. D., 195
 Lyonetiidae, 832, 851, 855, **857-9**, 861
 Lyonetiinae, 857, **858-9**
Lyophlaeba, 759
 Lyramorpha, 508
Lyroda, 991
 Lysenko, T. D., 238
 lysine, 58
Lyssa patroclus (Linnaeus), 893
 Maa, T. C., 364, 468, 490, 785, 786
Macadamia (BOT.), 461, 863, 873-4, 899, 904; *M. integrifolia*, 222; *M. tetraphylla*, 222
 macadamia felted coccid, *see* *Eriococcus ironsidei*
 macadamia nutborer, *see* *Cryptophlebia ombrodelta*
Macalla, 887
 McAlpine, D. K., 717, 721, 770, 771, 772, 774, 777, 779
 McAlpine, J. F., 174, 717, 723, 724, 725, 729, 730, 735, 751, 755, 762, 763, 770
Macaranga, 851; *M. leucochrysa* Meyrick, Pl. 7
Macarostola, 850, 853; *M. formosa* (Stainton), 853, Pl. 7
 MacArthur, R. H., 185
 Macauley, B. J., 79, 80
 MacBride, E. W., 67
 McCafferty, W. P., 132, 284, 285
 McClure, M. S., 78
 McDonald, F. J. D., 504, 507, 508
 McDonald, G., 104, 107, 108
 MacDonald, J. A., 821
 McDougall, W. A., 638
 McDowall, R. M., 187
 McFadyen, R. E., 112, 210, 461
 McFarland, N., 541, 889, 900
 McGinley, R. J., 993
 McGinnis, W., 248
 McGuffin, W. C., 889
Machaerota, 468; *M. finitima* Jacobi, 469
 Machaerotidae, 430, 443, 467, **468**, 469
 Machaerotinae, **468**
 Machilidae, 98, 128, 130, 155, 273, 274
Machilis variabilis Say, 18
Machiloides, 274; *M. hickmani* Womersley, 274
 McInnes, R. S., 89, 830
 McIver, S. B., 358
 Mackay, R. J., 793
 McKechnie, S. W., 241
 McKenzie, H. L., 462
 McKenzie, J. A., 241, 245
 Mackenziellidae, 258
 McKeown, K. C., 90, 91, 538, 674
 Mackerras, I. M., xiii, 3, 182, 190, 196, 198, 199, 203, 209, 211, 214-20 *passim*, 236, 239, 240, 245, 246, 259, 325, 755

- Mackerras, M. J., 199, 212, 215, 217, 219, 323-9 *passim*
 McKinney, K. B., 78
 McKittrick, F. A., 320, 321, 324, 325
 McLaren, I. W., 464
 McLean, M., 290
 McLean, M. R., 640
 Macleay, A., 199, 202, 203
 Macleay, W. J., 198, 199, 202-7 *passim*, 216, 236
 Macleay, W. S., 199-205 *passim*
 Macleay Museum, 203-4, 206, 236
 MacLeod, E. G., 176, 537
 McMahan, E. A., 337
 McMinn, W. G., 202
 McNeill, J., 119
 McNeill, S., 78
 McPherson, D. G., 241
 Macpherson-Macleay overlap, 196
 Macquarie I., 257, 260, 261, 263, 709, 714, 769
 McQuillan, P. B., 628, 889
Macramycterus boisduvali (Boisduval), 681
Macratria, 671
 Macratriinae, 671
Macrocalymma, 979
 Macrocentrinae, 946, 947, 949
Macrocheles (ACARINA), 560
Macrocyphon, 624
Macrocytara expressa (Lucas), 870, 871
Macroderma gigas (MAMMALIA), 716
 Macrodiplactidae, *see* Urothemistinae
Macrodiplax cora (Kaup in Brauer), 310
 Macroglossinae, 904
Macroglossum, 904; *M. hirundo* (Boisduval), 903, 904
Macroglyphotermes, 346; *M. sunteri* (Hill), 334, 343
Macrogyrus, 616; *M. oblongus* (Boisduval), 615; *M. striolatus* (Guérin-Méneville), 615
Macrohelodes, 624; *M. crassus* Blackburn, 625
Macrohomotoma, 449
Macromannus webbicus Hill, 481
 Macromesinae, 963-4
Macromia, 310
 Macromiinae, 308, 310
 Macronematinae, 789, 799, 801, 802, 803, 811
Macrones, 673
Macropanesthia, 102, 323, 329; *M. rhinoceros* Saussure, 320, 324, 329
 Macropathinae, 381
Macropathus tasmaniensis Richards, 381
Macropocopsis, 98
 Macropodidae (MAMMALIA), 98, 427, 683
 Macropsinae, 470-1
Macropsylla, 714, 716; *M. hercules* Rothschild, 715, 716
 Macropsyllidae, 707, 709, 710, 714, 715-16
Macropus: *M. agilis* (MAMMALIA), 427; *M. robustus*, 785; *M. rufus*, 785
Macrosiagon, 664
Macrosiphum: *M. euphorbiae* (Thomas), 454, 455; *M. rosae* (Linnaeus), 437, 454, 455
 Macrostelini, 472
Macrosulbulitermes, 347; *M. greavesi* (Hill), 347
Macroteleia, 954
Macrotermes, 337
 Macrotermitinae, 340, 345
Macrotris lagotis (MAMMALIA), 339
 macrotrichia, 5, 12, 228
Macrotristria, 467; *M. angularis* (Germer), 466
 Macroveliidae, 443, 482
Macrozamia (BOT.), 194; *M. riedlei*, 650
Macurohelea, 746
 MacSwain, J. W., 687, 689
 Maddison, W. P., 118
 Madeira ant, *see* *Pheidole megacephala*
 Madeovelliinae, 482
Maechidius, 561, 630
 Maeta, Y., 689
Maevius, 503; *M. indecorus* Stål, 504
 Magdalinidae, 682
 Magellania, 188
 Maggioncalda, E. A., 762
 maggots, 222, 230, 761, 782; *see also* larvae: acephalic
 magnesium, 61
 Mahon, R. J., 112
 Maiden, J. H., 201
 maiden-hair fern, *see* *Adiantum aethiopicum*
 Main, B. Y., 90
 Maindroniidae, 130, 275, 277, 278
 Mainx, F., 728
 maize, pests of, 563, 678, 914
 Majer, J. D., 110
 Majer, K., 647
 mala, 558
 Malachiinae, 563, 568, 570, 583, 584, 647-9
 Malacopsyllidae, 709
 Malacopsylloidea, 708, 709, 714
Malacosoma, 830
Malamoeba locustae (PROTOZOA), 377
 malaria, 211, 218, 219, 229-30, 732, 744
 malaxation, 92
 Malaya, 744
 Malcidae, 443
 Malicky, H., 794, 795, 803
 Malipatil, M. B., 429, 482, 483, 485, 494, 496, 501, 502
 Malloch, J. R., 760, 770, 771, 779, 780, 782
 Mallophaga, 136, 211, 421, 426
Mallotus philippensis (BOT.), 886
 Malpighian tubules, 54, 59, 60; cryptonephric (cryptonephridial) arrangement, 59, 554, 632, 641, 644
 maltase, 57
 Malva, 386
Malva (BOT.), 471
 Malvaceae (BOT.), 449, 502, 503, 508, 854, 869, 873, 914, 994
 Malyshev, S. I., 916, 942
 Mamaev, B. M., 637, 645
 Mamet, R., 462, 464
 mammals, 230, 284, 324, 352, 489, 490, 784-5, 929; nests, 94, 95, 257, 340, 489, 490, 620, 624, 629, 642, 644, 665, 708; parasites of, 421-8 *passim*, 439, 494, 705-16 *passim*, 782, 784-6
 types of: buffalo, 428, 780; camel, 785; cat, 227, 427, 709, 714; cattle, 88, 89, 96, 108, 246, 425, 427, 428, 442, 732, 746, 780, 782, 785, 935; coyote, 427; dingo, 222, 225, 427, 428; dog, 218, 227, 425, 427, 428, 709, 714; elephant seal, 69, 424; goat, 427, 428; guinea-pig, 427; hare, 428; horse, 95, 96, 427, 428, 442, 732, 746, 780, 784, 785; jackal, 427; leopard seal, 428; mammoth, 174; pig, 89, 423, 428; rabbit, 93, 95, 211, 233, 425, 428, 708, 709, 714, 732, 744; river otter, 427; sea lion, 428; seals, 425, 427-8; sheep, 89, 95, 96, 110, 208, 415, 422, 424, 425, 427, 428, 732, 746, 782, 785; sloths, 93; ungulates, 95, 96, 428; Weddell seal, 68, 69; *see also* bats; humans; marsupials; monotremes; rodents
 Mander-Jones, P., 202
Mandevilla (BOT.), 897
 mandible, 8, 148; dicondylar, 35, 275; monocondylar, 272; of Lepidoptera adults, 174, 817; of pupae, 67, 528, 793, 817, 828, 835, 837
 Mandibulata, 127
Manduca, 37; *M. sexta* (Linnaeus), 250
 mango, pests of, 325, 683, 912, 961
 mango seed weevil, *see* *Sternochaetus mangiferae*
 mangroves, 226, 343, 478, 640, 770, 779, 870, 883, 899, 985
 Manicapsocidae, 416
 Mann, J., 210, 461
 Mann, J. S. (Chapter 35), 555, 672
 Mann, J. S. (Chapter 39), 756
 manna, 441
 Manotinae, 751
 Mansell, M. W., 525, 542
Mansonia, 73, 730, 744; *M. uniformis* (Theobald), 744
Mantibarina anomala Kirby, 926, 954
 Mantibarini, 954
 Mantidae, 348-53 *passim*, 355-6, 688, 694, 954, Pl. 2
 mantids, *see* Mantodea
 Mantinae, 350, 353, 356
Mantis octospilota Westwood, 351, 356
Mantispa, 537
 Mantispidae, 525-33 *passim*, 537, 538
 Mantispinae, 538
 Mantispoidea, 531, 537-8
 Mantodea, 6, 18, 21, 24, 31, 51, 52, 77, 90, 99, 132, 133, 142, 166, 224, 320, 348-56, 396, 411, 538, 642, 685, 688, 694, 780, 926, 962, 967, 969, 991, Pl. 2
 Mantoididae, 353
 Manton, S. M., 4, 127, 128, 129, 130, 145, 146, 252, 256, 269, 272, 273
 manubrium, 254
 manuka weed, 442
 maple, 454; Japanese, 454
Marava, 367; *M. arachidis* (Yersin), 363
Marcentia, 404
 March flies, *see* Tabanidae
 Marchant, R., 288, 292, 293
 Mardon, D. K., 705, 709, 710, 714
 Marescalchi, O., 396
 Margarodidae, 169, 170, 232, 431, 434, 439, 441, 443, 457, 458, 459, 460, 463, 778, 965
 marginal cell, 921
 Mari Mutt, J. A., 261
 Marietta, 968
Marilia, 787, 800, 808, 814, 815
 marine habitat, 12, 74, 75-6, 260, 261, 273, 274, 424, 483, 484, 485, 619, 730, 742, 744, 780, 787, 793, 795, 807; marine structures, 668; *see also* littoral insects
 Marks, E. N., 88, 198-208 *passim*, 212, 215-20 *passim*, 236
 Marks, E. P., 350
Marmosoma, 759
Maroga melanostigma (Wallengren), 863
 Marsh, P. M., 946
 Marshall, A. G., 94, 95, 96
 Marshall, A. T., 57, 467, 468
 Marshall, J. E., 559, 653
 Marshall, P. M., 468
Marsilea (BOT.), 935
 marsupials, 225, 257, 339, 425, 427, 502, 708, 714, 715, 716; bandicoot, 339, 714, 715; bilby, 339; euro, 785; kangaroos, 96, 427, 683, 732, 755, 785; mice, 400, 427; native cats, 427; numbat, 339, 986; possums, 88, 94, 442; potoroos, 714; wallabies, 98, 423, 424, 427, 630, 683, 755, 785; wombats, 714
 marsupium, in Margarodidae, 457
 Martin, J., 114, 251, 728, 729, 746
 Martin, J. E. H., 111, 763
 Martin, J. H., 452
 Martin, M., 424
 Martin, W., 194
 Martyn, E. J., 456
 Martynopanorpidae, 172
 Martynov, A. V., 15, 132, 795
Marxiana, 963
 Masarinae, 690, 691, 929, 936, 943, 979, 980, 981
 mask, of Odonata, 90, 300
Maskellia globosa Fuller, 464
 Masner, L., 175, 182, 949, 950, 952, 953
 Mason, W. R. M., 943, 949
 Masoreimi, 613
Massila sicca Walker, 475, 477
 Massoud, Z., 252, 259
Mastachilus, 627; *M. quaestionis* (Kuwert), 626

- Masters, G., 199, 204, 207, 215
 Mastogeniinae, **632**
 Mastopsenus, 561
 Mastoterms, 25, 166, 330-42 *passim*, 850; *M. darwiniensis* Froggatt, 6, 7, 8, 278, 331, 334, 335, 340, 341, 342, 627
 Mastotermitidae, 331, 333, 334, 335, 340, 341, **342**
 maternal care, *see* parental care
 Mather, P., 207, 208
 Mathis, W. N., 777, 779
 mating flights, 20, 281-2, 529, 535, 731, 744, 760, 983, 985
 Matsuda, R., 3, 131, 135, 360, 430, 485, 497
 Matthews, E. G., 123, 184, 207, 544, 630
 Matthews, M., 914
 Matthews, R. W., 946
 Matthiessen, J. N., 107
 Matthyse, J. G., 424
 Maulik, S., 677
 Maurillus, 975
 maxilla, 8
 May, B., 672, 676
 May, R. M., 110
Mayetiola destructor (Say), 749
 mayflies, *see* Ephemeroptera
 Mayr, E., 110-20 *passim*, 184
Mayriella, 984, 989; *M. abstinens* Forel, 986
 Maywald, G. F., 183, 246
 Mazanec, Z., 78, 80
Mazonoptermum wolfforum Kukulová-Peck and Richardson, 158
Mazothairus enornis Kukulová-Peck and Richardson, 158
 Mazur, S., 618
 Mazzini, M., 394, 396
Mcateella, 498, 499
 Meacham, C. A., 118
 Mead, R. J., 81
 Mead-Briggs, A. R., 708
 meal moth, *see* *Pyralis farinalis*
 mealworms, *see* *Tenebrio*
 mealybugs, *see* Pseudococcidae
 meat ants, *see* *Iridomyrmex purpureus*
 Meats, A., 241, 242, 247
 mechanoreception, 43-5
 Meconematinae, 379, **384**
 meconium, 689, 984
 Mecopodinae, 379, **382**
 Mecoptera, 9, 12, 14, 18, 20, 25, 27, 28, 31, 64, 69, 72, 77, 90, 133, 139, **140**, 142, 162, 172, 173, 178, 179, 556, **696-704**
 Mecopterida, 14, 133, 136, 137, **138-40**, 144, 152, 171, **172-5**, 178
 Mecopteroidea, *see* Mecopterida
Mecopus, 563
Mecynodera coxalgica (Boisduval), 677
Mecynognathus, 612; *M. dameli* Macleay, 205
Mecynotarsus, 671
Mecynothrips, 513, 515
Mecytha fasciata (Walker), 879
Medetera, 760
 media, of wing, 15, 16
 medial fleck, 550
 median plate, 13, 14
Medicago (Bot.), 78
 medical entomology, 217-19, 709, 732, 746, 754-5, 780
 medicinal uses, of insects, 222, 519
 mediotergite, 721
 Mediterranean fruit fly, *see* *Ceratitidis capitata*
 Medocostidae, 443
 Medvedev, L. N., 672, 676
 Meenoplidae, 443, 474, **476**, 477
 Meessiinae, **851**
Megacephala, 613; *M. australis* (Chaudoir), Pl. 4
Megaceria, 945
Megachile, 961, 999; *M. chrysopyga* Smith, 997
 Megachilidae, 85, 921, 931, 943, 961, 974, 993, 994, 997, **999**
 Megachilinae, 997, **999**
 Megachilini, 999
Megacmonotus magnus (McLachlan), 526
Megacoelum modestum Distant, *see* *Creontiades dilutus*
Megacrania: *M. batesii* (Kirby), 403; *M. wegneri* Willemsse, 398
 Megakhosaridae, 163
Megalanura, 260; *M. tasmaniae* Lubbock, 258
Megalithone, 535; *M. megacerca* (Tillyard), 526
Megalocolus, 961
 Megalodontidae, 930
 Megalodontoidea, 922, 930, 931, 932
Megalopaussus amplipennis Lea, 613
 Megalopodidae, *see* Chrysomelidae
 Megalopodinae, 585, 587, 672, 675, **676**
 Megalopsidinae, **622**
 Megaloptera, 20, 23, 25, 28, 67, 72, 73, 75, 77, 90, 133, 137, **138**, 142, 152, 162, 171, 173, 175, **176**, **516-20**, 521, 556, 794
 Megalopygidae, 832
Megalothorax, 263
Megalyra, 918, 920, 939, 940; *M. mutilis* Westwood, 940; *M. troglodytes* Naumann, 940
 Megalyridae, 918, 920, 921, 930, 936, 939, **940**
 Megalyrinae, **940**
 Megalyroidea, 97, 917, 930, 935, 936, **939-40**
 Megameridae, 734, 771
Megamerus, 677
Meganeura, 161
 Meganeuridae, 161
Meganeuropsis americana Carpenter, 160
Meganeurula, 161
 Meganisoptera, *see* Protodonata
 Megapodagrionidae, 296, 300, 304, 306, **307**
 Megapodiidae (AVES), 423
Megapsychops, 539; *M. illidgei* (Froggatt), 539
Megarhyssa, 234; *M. nortoni* (Cresson), 234, 944
 Megarididae, 444
Megascogaster, 949
 Megasecoptera, 142, 143, 151, 156, **158-9**
Megaselia: *M. halterata* (Wood), 763; *M. scalaris* (Loew), 763
 Megaspilidae, 930, 939, **940-1**
 Megaspilinae, **940**
Megastethodon urvillei Lepelletier and Serville, 468
 Megastigminae, 960, **962**
Megastigmus, 960, 962
 Megathyminae, 893
Megatypus schucherti Tillyard, 161
Megaxenus, 561, 671
Megochterus nasutus (Montandon), 487, 488
Megoura viciae Buckton, 55
Megymenum: *M. affine* Boisduval, 508; *M. insulare* Westwood, 508
 Meinander, M., 176, 535
 Meinertellidae, 272, 273, **274**
 Meinertzhagen, I. A., 735
 meiosis, 62
Melaleuca (Bot.), 83, 194, 456, 471, 494, 513, 805, 873, 887, 935, 980, 994
 Melander, A. L., 731
 Melandryidae, 563, 565, 574, 594, 597, 661, **662-3**
 Melandryinae, **663**
Melanerythrus mactans (Stål), Pl. 3
Melangyna, 763
 melanin, 39, 40
 melanisation, 39, 377
 melanism, 353
Melanitis leda (Linnaeus), 897
Melanococcus albizziae (Maskell), 461
Melanodes, 892
Melanotrichus, 493
Melanotus, 563
Melanoxanthus, 638
Melanterius, 682
 Melectini, 999
Melia (Bot.), 908
 Meligethinae, 563, **650**
 Meliponinae, 997, **1000**
 Melittidae, 931
Melittobia, 969
Melittomma, 566, 644
 melliferous Hymenoptera, 928, 974
Melobasis, 632
 Meloidae, 30, 97, 98, 276, 545, 556, 560-5 *passim*, 571, 585, 590, 594, 640, 667, **668**, 687, 929, Pl. 6
 Melolonthinae, 122, 561, 563, 627, 628, 629, **630**, Pl. 5
 melons, pests of, 678, 889, 914
 Melophaginae, **785**
Melophagus, 237, 785; *M. ovinus* (Linnaeus), 95, 785
Melophorus, 224, 982-9 *passim*
 Melusinidae, *see* Simuliidae
 Melville, R. V., 609
 Melyridae, 75, 377, 545, 547, 561, 563, 564, 568, 569, 570, 583, 584, 597, 646, **647-9**
Melytra, 574, 665
 Membracidae, 430, 438, 440, 441, 443, 468, 469, 472, **473**, 690, 694
 memory, studies on, 248-9
Menacanthus stramineus (Nitzsch), 422, 424, 427
Meneristes, 665; *M. intermedius* Pascoe, 551, 566
Mengea tertiaria (Menge), 692
 Mengeidae, 178, 276, 685, 691, 692
Mengenilla, 692, 693, 694; *M. australiensis* Kifune and Hirashima, 692; *M. gracilipes* (Lea), 692
 Mengeniillidae, 31, 684-91 *passim*, **692**, 693, 694
 Mengeniillidia, 691, **692**
 Mengeniillinae, **692**
 Menke, A. S., 175, 487, 993
Menopon gallinae (Linnaeus), 427
 Menoponidae, 96, 422, 423, 425, 426, **427**
Meomyia, 759
Meoneura, 775
 meracanthus, of Psyllidae, 449
Meranoplus, 70, 985, 987, 989
Merimna atrata (Hope), 632
Meringops, 945
Meringosiphon, 456; *M. paradysicum* Carver, 454
Mermaid (ship), 202, 205
 Mermithidae (NEMATODA), 352, 377, 441, 690, 732, 831, 987; *Mermis*, 364
Meroglossa, 996
 meron, 11
Meropathus, 619
Merope tuber Newman, 703
 Meropeidae, 172, 696-702 *passim*, **703**
Merophyas, 54; *M. divulsana* (Walker), 873
 Merophysiidae, *see* Endomychidae
 meropleuron, 721
Meroscalcis selecta Spaeth, 674
 Merothripidae, 511, 512, 514, **515**
Merothrips, 510, 515
Merragata hackeri Hungerford, 482, 483
 Merritt, R. W., 284
 Merycidae, *see* Zopheridae
 Merycinae, 662, **665**
Meryx, 581, 603, 664, 665; *M. rugosa* Latreille, 566, 661, 662, 665
 Mesa, A., 388
Mesecanus, 178
 MesepheMERIDAE, 160
 Mesitiinae, 973
 Mesoberothidae, 175
 Mesoblattinidae, 166, 179
 Mesochorinae, **945**
Mesochorista proavita Tillyard, 174
 Mesochoristidae, 172
Mesochorus, 945
 Mesochrysoptera, 175, 539
Mesococcus, 170

- Mesocynipinae, 955, **956**
Mesocynips, 955, 956
Mesodryinus, 972
Mesoforicula, 167
Mesogereon superbum Tillyard, 169
 Mesogereonidae, 170
Mesohomotoma hibisci (Froggatt), 449
 meson, 3
 Mesopanorpididae, 172
 mesophiles, 611
Mesophlebia, 162
 Mesophlebiidae, 162
Mesophysa, 756
 Mesopolystoechotidae, 175
 Mesopocidae, 416, 418, 419, **420**
 Mesopsychidae, 174
 Mesoraphidiidae, 176
Mesoses, 174
 mesosoma, 918
 Mesostigmata (ACARINA), 257, 560
 Mesostoinae, **947, 948**
 mesothorax, 9
Mesovelia, 482; *M. hungerfordi* Hale, 482, 483; *M. vittigera* Horváth, 482
 Mesoveliidae, 75, 440, 442, 443, **482**, 483
 Mesoveliinae, **482**
 Mesovelioidae, 443, 445, 447, **482**
 Mesozoic Era, 141, 142, 144
 Messenger, P. S., 232
 Messner, B., 392
Metaballus, 113; *M. alatus* Rentz, 383; *M. frontalis* (Walker), 181; *M. lius* Rentz, 251
Metacanthus pluto Gross, 438, 498, 499
 metacephalic plates, 729
 metacephalic rods, 729
 Metaceryloninae, 581, 655, **656**
Metacoelura, 262
Metacucujus, 650; *M. encephalarti* Endrödy-Younga and Crowson, 194
Metallarcha, 889
 Metallyticidae, 353
Metamimas, 904
Metamoniis, 188, 281
 metamorphosis, 60, 62, 66-7, 150-2
Metaparagia, 980
Metapelma, 967
 Metapelmatinae, **967**
Metaphya, 308; *M. tillyardi* Ris, 309
Metaphycus, 967
Metapone, 985
 metapygidium, 361
 Metarbelidae, 832
 metasoma, 923, 980
Metastivalius, 712, 715; *M. molestus* (Jordan), 715; *M. rectus* (Jordan and Rothschild), 713, 715
 metatarsus, 11
 metatentorinae, 7
 metatentorium, 6
 metathorax, 9
 Metcalf, Z. P., 465, 467, 468, 474
 Meteorideinae, 947
Meteorus, 948
Methana, 325, 327; *M. curviger* (Walker), 327; *M. marginalis* Saussure, 321, 323, 324
 methionine, 58
 Methochinae, 978
Metholce, 382
 methylenebutanal, 2-, 324
Metoedischia, 164
Metoligotoma, 405, 409; *M. illawarrae* Davis, 408; *M. reducta* Davis, 409
 Metopiinae, **945**
Metopochetus, 771, 772
Metopolophium dirhodum (Walker), 454, 455
Metopsia, 544
Metreletus, 188
Metriocampa, 269, 270, 271; *M. (Austrocampa) spinigera* Womersley, 271; *M. (Austrocampa) spinigera victoriense* Womersley, 271; *M. (Tricampa) paradoxa* Condé, 271
Metriorrhynchus, 100, 640, 668, 830, 860; *M. rhipidius* (Macleay), 100, 638, 639, Pl. 6; *M. rufipennis* (Fabricius), 566
 Metrodorinae, 387
Metroptor pusillus Handlirsch, 172
Metrosideros (BOT.), 502
 Metz, C. W., 731
Meyriccia, 886; *M. latro* (Zeller), 887
 Meyrick, E., 199, 214
Mezira, 497
 Mezirinae, **497**
Mezium: *M. affine* Boieldieu, 644; *M. americanum* (Laporte), 644
 Michaelis, F. B., 110, 311
 Michaelsen, W., 199, 216
 Michelsen, A., 45
 Michener, C. D., 101, 120, 552, 903, 916, 921, 993, 994, 999, 1000
 Michener, M. H., 101
 Mickoleit, G., 137, 138, 139, 140, 510, 553
Micrencaustes, 654
 micro-organisms, 57, 58-9, 62, 78, 94, 98, 102, 257, 273, 276, 304, 560; as food, 77, 78, 257, 743; *see also* bacteria; fungi; viruses
Microcerotermes, 330, 337, 345, 346, 561; *M. boreus* Hill, 335; *M. serratus* (Froggatt), 346
Microceroxenus, 561
Microchaetes, 566, 580, 633, 634, 639
 Microchiroptera (MAMMALIA), 88, 716
Microchorista, 699, 700, 701, 702
Microconops, 768
 Microcorsini, 873
 Microcoryphia, *see* Archaeognatha
Microctonus, 948
Microdes, 891
Microdon, 729, 763; *M. fergusonii* Goot, 764; *M. variegatus* (Walker), 100
Microdonacia, 678
 Microfalculidae, 258
 Microgasterinae, 946, 947, 948, **949**
Microhodotermes, 345
 Micromalthidae, 548, 562, 564, 607
Micromalthus, 555; *M. debilis* LeConte, 556
Micromus tasmaniae (Walker), 539
Micronecta, 488
 Micronectinae, **488**
Micronia, 893
 Microniinae, 892, **893**
 Micropeplidae, 561, 564
 Micropezidae, 721, 734, 765, **771**, 772
Microphorella, 733, 760
 Microphysidae, 443, 491
Micropolytoxus, 496
 Micropterigidae, 27, 28, 174, 182, 556, 696, 819, 825, 831, 833, **834-5**, 836, 842
 Micropterigoidea, 831, **834-5**
 microptery, 382, 384, 483, 501, 502, 513, 550, 703, 740, 741, 742, 900, 940, 948, 963, 965, 967, 973, 974; *see also* brachyptery
 Microptysmatidae, 174
Microptysmella, 174
 micropylar plate, 396
 micropyle, 63, 64
Microsania australis Collart, 762
Microsilpha, 573, 622
 Microsilphini, 563
 Microsporida (PROTOZOA), 98, 732
 Microsporidae, 549, 550, 558, 560, 562, 564, 582, 591, 598, **608-9**
 Microsporoidea, 564
Microsporus, 567, 608; *M. ovensensis* (Oke), 549, 609
Microsternus, 595, 654, 659
Microterys, 967
 Microtettigoniinae, 379, **382**
Microthoron, 954
Microtragus, 673
 microtrichia, 5, 12
Microvalgus, 561, 628, 631
Microvelia, 483; *M. peramoena* Hale, 484
 Microveliinae, **483**
Micruloma, 656; *M. minuta* Carter, 655
Mictis profana (Fabricius), 438, 504, 505
 mid gut, 56-9; caeca, 56-7
 Middlekauff, W. W., 932
 midges, *see* Chironomidae
Miespa, 499
 Migadopini, 563, 611, 614
 migration, 69, 103-8, 184, 222, 301, 309, 377, 389, 391, 829, 889, 893, 897, 898, 909, 914; of army ants, 985, 986
 migratory locust, *see* *Locusta migratoria migratoroides*
 Mikkola, K., 105
 Mikulic, D. G., 143
 Miles, P. W., 391, 435, 439
 Miletiniae, 899
 Milewski, A. V., 83
Milichia piscivora Malloch, 780
Milichiella, 779, 780
 Milichiidae, 735, 766, 767, 775, 777, **779-80**, 987
 milkweed, *see* *Asclepias* and *Gomphocarpus*
 milkweed butterflies, *see* Danainae
 Miller, C. A., 248, 249
 Miller, D. R., 113, 457, 459, 462
 Miller, J. S., 895, 896, 905
 Miller, L. A., 88, 530
 Miller, L. R., 331, 333, 340, 341, 345, 346, 347
 Miller, N. C. E., 91, 479, 495, 499
 Miller, P. L., 131
 Miller, R. M., 770
 millet, pests of, 780
 Milner, R. J., 377
Miltinus, 758; *M. viduatus* (Westwood), 719, 757, 758
 Miltogrammatinae, **782**, 929
Mimaglossa nauplialis (Walker), 884
 Mimallonidae, 832
 Mimallonioidea, 832, 833
Mimegralla, 771
Mimelogonalos, 939
Mimodes, 650; *M. laticeps* (Macleay), 648
 mimicry (mimesis), 92, 100, 113, 237-8, 239, 257, 324, 339, 352, 376, 377, 382, 391, 394, 396, 440, 561, 640, 668, 673, 680, 763, 830, 860, 898, 926, 927, 944, 961, 975-6, 978, Pl. 6; *see also* ant mimics; bee mimics; seed mimics; spider mimics; wasp mimics
Mimophantia stictica (Melichar), 479
Mimos *pigra* (BOT.), 563, 677
 Mimosaceae (BOT.), 81, 194, 449, 452, 503, 897
Mimoscopa, 850
Minageria, 975
 Mincham, V. H., 538
 Minet, J., 132, 134, 135, 821, 833, 870, 872, 880, 887, 892
 Minks, A. K., 456
Minthea acanthacollis (Carter and Zeck), 643
 Miocene Epoch, 141, 142, 144; in Australia, 195
 Miomoptera, 142, 144, 171, **172**
 Miracinae, 947, **948**
Mirawara, 73, 188, 280, 284, 288, 289, 290, 292; *M. aapta* Harker, 21, 289
Mirax, 948
 Miridae, 53, 78, 88, 91, 171, 182, 227, 429-35 *passim*, 439-43 *passim*, 475, 489, 490, **491-3**, 499, 508
 Mirinae, 491, 492, **493**
 Mirini, 493
Mirobaeoides, 954
 Miroidea, 443, 445, 447, **491-3**
Mirounga leonina (MAMMALIA), 69
 mirror, *see* auditory organs; stridulation
Miscera, 875-6; *M. androgyna* Turner, 876
 Mischoptera, 151, 159
 Mischopteridae, 159
Mischoserphus, 952
 Miscogasterinae, **965**
 Miscophini, 990, 991
 Mishler, B. D., 120

- mistletoe, *see* Loranthaceae
 mistletoe browntail moth, *see* *Euproctis edwardsii*
 Mitchell, T. L., 199, 202
 mites, *see* Acarina
 mitosis, 62
 Mizukubo, T., 321
 Mjöberg, E. G., 216, 364
Mjobergella, 386
Mjobergia, 541
Mnesampela, 889, 892; *M. privata* (Guenée), 889
 Mnesarchaeidae, 832, 833
 Mnesarchaeoidea, 824, 832, 837
Mochlonyx, 115, 116
Mocis frugalis (Fabricius), 90
 Mockford, E. L., 414, 416, 419
 Modicogryllini, 386
Moerarchis, 850; *M. clathrata* (Felder and Rogenhofer), 853
 Mogoplistinae, 379, 384, 385, **386**
 mola, 545, 558
 Molannidae, 795
 mole crickets, *see* Gryllotalpidae
 molecular biology, studies in, 243-4
 molecular genetics, studies in, 245
 Mollusca, 97, 250, 560, 614, 616, 640, 763, 768, 780, 782
Moloch horridus (REPTILIA), 986
Molophilus, 741, 742
Motorchus, 685
 Molossidae (MAMMALIA), 364, 716
 Molytinae, 681, **682**, Pl. 4
Molytria, 329; *M. inquinata* Stål, 329
 Momphidae, 832, 859
Monacon, 965
Monanus, 651; *M. concinnulus* (Walker), 651
Moneilema, 563
Mongolabis, 366
 Monimiaceae (BOT.), 895
Monistria pustulifera (Walker), Pl. 2
 Monistriini, 389
 monitory grasshoppers, *see* Eumastacidae
 monoamines, 248
 Monocondylia, 148, 150, 153, 154
 monocotyledons (monocots) (BOT.), 389, 391, 475, 478, 502, 668, 677, 682, 777, 857, 874, 887, 893
 Monodontomerinae, **962**
 Monodontomerini, 962
Monolepta australis (Jacoby), 678
Monolexis, 948
 Monomachidae, 930, 949, **950**, 951
Monomachus, 950; *M. antipodalis* Westwood, 951
Monomma: *M. australe* Thomson, 664; *M. brunneum* Thomson, 664
 Monommidae, 552, 565, 577, 597, **664**
Monomorium, 985, 986, 987; *M. destructor* (Jerdon), 987; *M. pharaonis* (Linnaeus), 55, 987
 monophagy, 113
Monophlebulus, 459
Monophylla, 575
 monophyletic group, 117
 monophyly, 117
Monopsis, 818, 820, 825, 829, 849, 850, 852, 855; *M. argillacea* (Meyrick), 853; *M. chrysogramma* (Lower), 850
 monosaccharides, 57, 58
Monotaxis linifolia (BOT.), 83
Monotoma, 650; *M. americana* Aubé, 659
 Monotominae, 586, 605
Monotomopsis, 650
 monotremes, 180; echidna, 339, 708, 714, 986; platypus, 708
 Monotrysiina, 823, 824, 833, 841
 monotypy, 122
 Monro, J., 246
 Monrós, F., 672, 676, 677, 678
 Monteith, G. B., 84, 111, 207-13 *passim*, 229, 429, 482, 496, 497, 630, 677, 893
 Monteithiini, 430
Monteithocoris, 499; *M. hirsutus* Woodward, 498
 Monteithostolini, 481
 Monura, 126, 128, 142, 143, 144, 148, 150, 152, 153, **155**
 Moore, B. P., 71, 100, 216, 544, 560, 561, 563, 608-14 *passim*, 626, 632, 646, 668, 678
 Moore, I., 624
 Moore, K. M., 98, 448, 449, 938
 Moorhouse, D. E., 74, 746
Moraba virgo Key, Pl. 2
 Morabinae, 180, 213, 243, 376, 387, **388**, 948
 Moraceae (BOT.), 449, 452, 897
 Moran, C., 243
 Moran, P. A. P., 245
Moranila, 965
Morbora, 506, 508
Mordella, 663
 Mordellidae, 178, 552, 556, 558, 565, 575, 584, 588, 592-7 *passim*, 661, 662, **663**
Mordellistena, 663
 Morgan, F. D., 449, 450, 562, 683
 Morgan, Harriet, *see* Scott, Harriet
 Morgan, T. H., 238, 240
 Morimoto, K., 678, 682
Morinda (BOT.), 904
 Morionini, 613, 614
 Moritz, G., 510, 511
Moritzella corticalis (Kaltenbach), 457
 Moriuti, S., 851, 855
 Mormotomyiidae, 735
Morna florens (Walker), Pl. 3
Morphopaga, 849; *M. clonodes* (Meyrick), 850
Morpho, 38
Morpholycus, 669; *M. costipennis* Lea, 553, 566, 662, 669
 morphometrics, 113
 morphospecies, 112
 Morrison, H., 459, 460
 Morrissey, R., 358
 Morrow, P. A., 79, 80
 Morse, J. C., 793, 795
 Morton, S. R., 339, 380, 381
 Mosely, M. E., 790, 801
 Mosher, E., 827
 mosquitoes, *see* Culicidae
 moss, 68, 77, 174, 260, 266, 317, 355, 407, 439, 480, 493, 512, 515, 621, 624, 634, 664, 700, 703, 780, 807, 848, 886, 887, 910
Mossga, 541
 moth flies, *see* Psychodidae
 moth lacewings, *see* Ithonidae
 moths, *see* Lepidoptera
 Moulds, M. S., 307, 429, 465, 834, 904
Mouldsia, 415
 Moulins, M., 131
 moulting, 36-8, 39, 50, 61, 65, 66, 67; fluid, 36; hormone, 38, 50, 65; *see also* ecdysis
 Mound, L. A., 118, 182, 452, 510-15 *passim*
Moundothrips, 515
 mouth-brushes, 729
 mouth-hooks, 90, 730
 mouth-parts, 7-9, 42, 90
 Moyal, A., 200
 Mroczkowski, M., 642
 mucro, of Collembola, 254
 mucus, 233-4, 677, 682, 750, 751, 932, 934
 mud: cases, 677; nests, 225, 925, 929, 961, 973, 975, 979-80, 990, 991, 993
 mud-dauber wasps, 225, 927, 940, 943, 990; *see also* Sphecinae
 Mueller, T. F., 104
 Mühlenberg, M., 758
 Muir, F., 476
 Muljadi, T. R., 391
 Müller, F., 12, 100
 Muller, H. J., 238
 Mullins, D. E., 323
 multi-dimensional scaling, 116
 multivoltine insects, 70
 Munroe, D. D., 182, 196
 Munroe, E., 887
 Munroe, E. G., 834
 Munting, J., 464
Munychryia, 900; *M. senicula* Walker, 901
 Munychryiinae, **900**
 Muona, J., 637
 Murmidiinae, 557, **656**, 659
Murmidius, 580, 601, 656; *M. ovalis* (Beck), 656, 659
Murphyella, 188, 281
 Murray, D. A. H., 461
 Murray, M. D., 69, 104, 421, 424, 425, 782
Mus musculus, *see* rodents: mice
 Musaceae (BOT.), 897
 Musapsocidae, 416
Musca, 63, 237, 728; *M. domestica* Linnaeus, 98, 230, 246, 250, 251, 723, 732, 780; *M. vetustissima* Walker, 99, 104, 107, 225, 230, 231, 246, 247, 719, 732, 780, 781
 Muscidae, 96, 99, 225, 227, 424, 719, 720, 723, 729, 732, 735, 768, **780**, 781, 785, 950, 956, 961, 965
 Muscinae, **780**
 Muscini, 780
 muscles, 36, 37, 42, 50-2, 67
 Muscoidea, 88, 90, 174, 212, 219, 718, 725, 733, 735, 760, 763, **780-6**, 956, 991
 museum pests, 415, 417-18, 562-3, 642
 Musgrave, A., 2, 198, 199, 200, 206-7, 209, 236, 239
Musgraveia sulciventris (Stål), 229, 507-8
 mushroom cultures, pests of, 257, 749, 763
 mushrooms, *see* fungi
 Musidoridae, *see* Lonchopteridae
Musotima, 887; *M. nitidalis* (Walker), 887
 Musotiminae, **887**
 Mutillidae, 921, 926, 927, 931, 974, **976-7**, 978, 982
 mutualism, *see* coevolution
Mutasca brevicornis Dallas, 504
Myangadina, 170
Myara aperta Otte and Alexander, 385
 mycangium, 234, 560
Mycetaea, 605; *M. subterranea* (Fabricius), 658, 659
 Mycetobiidae, 174
 mycetocytes, 59, 60, 78, 439, 560
 mycetomes, 59, 439, 480, 560
 Mycetophagidae, 565, 580, 581, 604, **660**, 661
Mycetophagus quadriguttatus Müller, 660
 mycetophagy (mycophagy), 439, 474, 491, 492, 496, 497, 560, 563, 609, 620, 623, 630, 644, 645, 650, 653, 654, 660, 664, 678; *see also* fungi
Mycetophila, 730, 751; *M. propria* Skuse, 750
 Mycetophilidae, 41, 60, 72, 91, 92, 182, 719, 721, 723, 730-40 *passim*, 747, **749-51**, 945, 950, 952
 Mycetophilinae, **751**
Mychocerus, 656
 Mychotheninae, 582, 601, 605
Mycomya, 721
Mycopsylla, 449; *M. fici* (Tryon), 449; *M. proxima* Froggatt, 449
 Mycteridae, 552, 565, 566, 577, 586, 588, 606, 660, 666, **668**
Mycitides imberbis Lea, 681
 Mydaeinae, **780**
Mydas heros Philip, 758
 Mydidae, 719, 734, 752, 757, **758**
 Myers, A. A., 187
 Myers, J. G., 478
Myerslopella, 442, 469, 471
 Myerslopiini, 430, 469
 Mygalomorphae (ARANEAE), 182, 975
 myiasis, 732, 763, 780, 782
Myiocnema, 968
Myiodactylus, 529, 530, 534, 540
 Mykytowycz, R., 785
 Mylacridae, 166

- Mymar*, 966
 Mymaridae, 415, 441, 562, 925, 931, 935, 957, 958, 959, 966, **970**
 Mymarinae, 966, **970**
 Mymarommatidae, 25, 923, 930, 957, **959-60**
 Myodochini, 501
 Myoglossata, 819, 833, 837
Myopa, 768
 Myoporaceae (BOT.), 450, 994
Myoporum (BOT.), 513, 904
 Myopsocidae, 413, 416, 417, 418, **420**
Myopsocus australis (Brauer), 413, 414, 417
Myothyria fergusonii Malloch, 388
Myotis adversus (MAMMALIA), 88
Myotyphlus jansonii (Matthews), 93, 624
Myrabolia, 572, 573, 574, 650, 651; *M. groupelliana* Reitter, 648
 Myraboliniinae, **650**
 Myriapoda (myriapods), 4, 76, 97, 101, 126, 127, 143, 145, 146, 148, 152, 153, 252, 496
Myrmacielus, 680
Myrmeanthrenus, 561; *M. frontalis* Armstrong, 642
 Myrmecixenini, 667
Myrmecohleva, 558, 620, 621
Myrmecia, 49, 228, 400, 922, 966, 980-9 *passim*; *M. brevinoda* Forel, 278; *M. gulosa* (Fabricius), 226; *M. inquilina* Douglas and Brown, 984; *M. mjobergi* Forel, 985; *M. nigricipes* Mayr, 984, 986, 988; *M. nigrocincta* Smith, Pl. 5; *M. pilosula* (Smith), 987; *M. pyriformis* Smith, 46; *M. vindex* Smith, 984
 Myrmeciinae, 983, 986, **987**, 988, 989, Pl. 5
Myrmecobius fasciatus (MAMMALIA), 339, 986
 myrmecochory, 82-3, 985, 987
Myrmecodia (BOT.), 83, 985; *M. beccarii*, 83-4
 Myrmecolacidae, 178, 686-93 *passim*, **694**
Myrmecolax, 693
Myrmecomimesis, 400, 926, 972
 myrmecophiles, *see* inquilines
 Myrmecophilidae, 378, 379, 384, **386**
Myrmecophilus, 386; *M. testaceus* Chopard, 386
Myrmecophryne formiceticola Kirkaldy, 472
Myrmecorhynchus, 84, 985
Myrmecoridae, 493
Myrmecoroides, 493
 Myrmecozelinae, **850**
 Myrmedoniini, 623
Myrmeleon, 541
 Myrmeleontidae, 91-2, 525-34 *passim*, 540, **541**, 993
 Myrmeleontinae, 531, **541**
 Myrmeleontini, 541
 Myrmeleontoidea, 527, 528, 530, 531, **539-42**
 Myrmicinae, 175, 441, 982-8 *passim*, **989**
 Myrtaceae (BOT.), 194, 449, 450, 452, 456, 502, 644, 775, 842, 844, 864, 879, 890, 913, 930, 965, 994
 Mystacinobiidae, 94, 735
Mystes planatus Champion, 663
Mystropomus, 613; *M. subcostatus* Chaudoir, 610
Mythimna, 914; *M. convecta* (Walker), 108, 831, 914, 948
 myxoma virus (myxomatosis), 95, 211, 218, 233, 425, 709, 732, 744
 Myxomycetes (FUNGI), 183, 601, 609, 620, 623, 625, 637, 640, 649, 656, 660
 Myxophaga, 176, 178, 546, 548, 550, 552, 558, 564, 565, 567, 607, **608-9**
 Myziniinae, **977**
Myzus: *M. ascalonicus* Doncaster, 454; *M. cymbalariae* Stroyan, 455; *M. ornatus* Laing, 454; *M. persicae* (Sulzer), 101, 454, 455
 Nabidae, 431, 440, 441, 442, 443, 489, **490-1**, 494
 Nabinae, **491**
Nabis, 491; *N. capsiformis* Germar, 491; *N. kinbergii* Reuter, 490, 491
Nacaduba, 899; *N. biocellata* (Felder and Felder), 899
Nacerdes melanura (Linnaeus), 668
 Nacerdinae, **668**
 Nagaraja, H., 969
 Nagarkatti, S., 969
 Nagashima, T., 357, 358, 359
 Nagatomi, A., 755
 Nagell, B., 283
 Nagorcka, B. N., 248
 Najt, J., 254, 261
 Nakamura, K., 358
 Nakata, S., 364
Nala lividipes (Dufour), 362, 364, 367
 Nalepa, C. A., 102
 Namkung, J., 359
Namurotypus, 161
Nanaguna breviscula Walker, 914
 nanitic Isoptera, 336
 Nankivell, R. N., 390
Nannisolabis, 367
Nannochorista, 28, 696-703 *passim*
 Nannochoristidae, 125, 138, 139, 172, 556, 696, 697, 698, 699, **701-2**, 703
 Nannodastinae, 766, 773
Nannodiplax rubra Brauer, 310
 Nannomecoptera, 139
Nannophlebia, 310
Nannophya, 310; *N. occidentalis* (Tillyard), Pl. 1; *N. pygmaea* Rambur, 310
Nanophyes, 579, 592, 680
 Nanophyinae, 592, **680**
Nanophyllum, 401
 Nanopsocetae, 416
 Nanosellinae, 601
 Naomi, S.-I., 544, 618
 narcotic secretion, 91
Nargiotes, 619, 621
Nargomorphus, 620
 Narkemidae, 163
 nasale, 557, 637
Nascio, 632
Nascioides parryi (Hope), 566
Nasonia, 922, 965; *N. vitripennis* (Walker), 245, 964
Nasosminthurus, 264
 nasus: in Isoptera, 330; in Odonata, 294
Nasutiphilus, 561
Nasutitermes, 336-41 *passim*, 346-7, 561, 950; *N. carnarvonensis* (Hill), 343; *N. dixonii* (Hill), 332; *N. exitiosus* (Hill), 332-9 *passim*, 346-7; *N. graveolus* (Hill), 346; *N. magnus* (Froggatt), 346; *N. triodiae* (Froggatt), 336, 337, 338, 339, 345, 346; *N. walkeri* (Hill), 338, 346
 Nasutitermitinae, 332, 340, **346-7**
 native honey bees, *see* *Trigona*
 Naucoridae, 74, 171, 434, 443, 486, **488**
 Naucorinae, **488**
Naucoris, 488; *N. congrex* Stål, 486
 Naucoroidea, 443, 445, 446, 488
 Nault, L. R., 468, 474
 Naumann, I. D., 180, 182, 916, 934, 935, 940, 949, 950, 952, 961
Nauphoeta cinerea (Olivier), 324, 325, 329
Nausibius clavicornis (Kugelnann), 651
 navigation, 986
 neala, 13
Neanastatus, 967
 Neanuridae, 143, 153, 253, 254, 255, 258, 259, **260**
 Neanurinae, 256, 257, **260**
Neapterolelaps, 964
Nearcha, 889
 Nearctic Region, 180, 182
 Neave, S. A. (*Nomenclator Zoologicus*), 123
 Neboiss, A., 195, 215, 607, 608, 638, 756, 787, 790, 793, 795, 800, 803, 805
Neboissoperla, 318
Neboissophlebia, 284, 292-3
 neck, 9
Necrobia: *N. ruficollis* (Fabricius), 646; *N. rufipes* (Degeer), 646
 necrophagy, *see* carrion
 Necrosciinae, 396, 400, **401**
 Necrotauliidae, 174
 nectar, 57, 84, 85, 87, 92, 104, 382, 626, 631, 632, 640, 642, 668, 700, 755, 782, 794, 829, 904, 917, 925, 928, 929, 936, 977, 980, 985, 990, 993-4, 995
 Needham, J. G., 285, 297, 723, 724
 Neelidae, 258, 259, **263**
Neelides, 263
 Neelipleona, 252, 253, 258, **263**
 Nefoeninae, **965**
Neides, 499
 Nelson, B. C., 424
 Nelson, C. H., 314
 Nelson, G., 116, 118, 182, 188, 190
Nemapogon granella (Linnaeus), 850
 Nemapogoninae, **850**
Nematidium, 581
Nematobola, 851
 Nematocera, 29, 30, 67, 73, 87, 139, 174, 556, 719-35 *passim*, **736-51**
 Nematoda, 82, 89, 217-18, 230, 234, 257, 284, 314, 324, 325, 352, 364, 377, 415, 441, 560, 562, 690, 709, 732, 744, 746, 755, 775, 831, 929, 987
 Nematomorpha, *see* Gordioida
 Nematopogoninae, **843**
Nemeritis, 524
 Nemestrinidae, 97, 219, 377, 729, 730, 732, 734, 752, 753, **755**, 756
 Nemestrinoidea, 753
Nemo, 777; *N. centriseta* D. McAlpine, 776
 Nemobiinae, 373, 379, 385, **386**
 Nemomychidae, 178, 194, 564, 565, 579, 585, **678-9**
Nemonyx, 678
Nemopalpus, 733, 747
Nemophora, 841, 843, 844; *N. sparsella* (Walker), Pl. 7
 Nemopteridae, 525-34 *passim*, 540, **542**
 Nemopterinae, **542**
Nemoria arizonaria (Grote), 113
 Nemouridae, 313, 314
Neoantilemon, 719
Neoaratus hercules (Wiedemann), 91, 727, 757
Neobatrachus pelobatoides (AMPHIBIA), 181
Neocaphrus, 647
Neocercus, 653
Neochera, 910
Neochorista, 703, 704; *N. ruficeps* (Newman), 704
Neocladia, 966, 968
Neodartus, 471
 Neodiparinae, 963
Neodryinus, 972
 Neopemeridae, 285
Neogalea sunia (Guenée), 914
Neogeoscapheus, 323, 329
Neohagla, 164
 Neoheteroptera, 481
Neola semiaurata Walker, 64, 906
Neolaxta, 329
 Neolepidoptera, 833, 837, 838
Neolucia, 899; *N. agricola* (Westwood), 899
Neomantis, 355; *N. australis* (Saussure and Zehnter), 355
Neomaorina, 766
Neomaskellia: *N. bergii* (Signoret), 452; *N. eucalypti* Dumbleton, 452
 Neomecoptera, 701
 Neoneurinae, 947
Neoparachorista: *N. perkinsi* Riek, 173; *N. splendida* Riek, 172
Neoparidris, 954
Neopasiphae, 995
Neopelotops, 563, 620
 Neopetaliidae, 304, 308, **309**
Neophoca (MAMMALIA), 428

- Neophyllaphis*, 442, 456; *N. brimblecombei* Carver, 454; *N. gingerensis* Carver, 454
 Neopseustidae, 832, 833
 Neopseustina, 818, 819, 832, 837
 Neopseustoidea, 832
 Neoptera, 10-19 *passim*, 126, 131, **132-40**, 142, 143, 144, 148-56 *passim*, 160, **162-78**, 311, 320, 330, 348, 357, 360, 369, 394, 405, 410, 412, 421, 429, 510, 516, 521, 525, 543, 548, 684, 705, 717, 787, 817, 916
Neoptinus, 644
 Neorhacodinae, 945
Neorhaphiomydas, 758
 Neorthophlebiidae, 172
 Neorthroblatinidae, 166
Neosalpingus, 671; *N. hybridus* (Erichson), 670
Neosardus, 759
Neoscelio, 954
 Neoscelionini, 954
Neosemidalis, 533, 535
Neosminthurus, 255, 264
Neosticta, 307
Neostylopyga, 327; *N. rhombifolia* (Stoll), 325
Neotemnopteryx australis (Saussure), 328
 neoteny, 131, 392, 407, 415, 684, 686; neotenic (Isoptera), 330, 331, 332, 333, 334, 336, 337
Neotermes, 330, 342, 850; *N. insularis* (Walker), 336
 Neoteoridae, 832, 833
Neotoxoptera: *N. formosana* (Takahashi), 455; *N. oliveri* (Essig), 455
 Neotropical Region, 180, 182
 neotype, 122-3
Neovulturnus vaedulcis (Kirkaldy), 471
 Nepenthaceae (BOT.), 87
Nepenthes (BOT.), 87, 88; *N. mirabilis*, 87
Nepharinus, 561, 575, 651
Nepharis, 561, 575, 651
Nephotetix, 690
 nephridia, *see* labial glands
Nephrites, 664
 nephrocytes, 61
Nephrotoma, 741
 Nepidae, 63, 171, 434, 437, 443, 446, **486-7**, 954
 Nepinae, **486**
 Nepoidea, 443, 445, 446, **486-7**
 Nepomorpha, 171, 429, 430, 431, 434, 439, 440, 443, 445, 480, 481, 482, **486-8**
 Nepticulidae, 821, 825, 829, 832, 833, **841-2**, 844, 845, 948
 Nepticulinae, **842**
 Nepticuloidea, 819, 823, 828, 832, 833, 837, **841-2**
Neptunia (BOT.), 897
 Neriidae, 734, 765, **771**, 772
 Nerioidae, 734, **771**
Nerthra, 488; *N. nudata* Todd, 487; *N. plauta* Todd, 488
 Nerthrinae, **488**
 nerve cells, 42, 51; interneurons, 42; motor neurons, 42, 51; sensory neurons, 36, 42
 nervous system, 42-3, 61
Nesameletus, 188, 281
Nescioperta, 318
Neseuthia, 621
Nesidiocoris, 491; *N. tenuis* (Reuter), 491, 493
Nesochlutha, 472
Nesogaster, 367; *N. halli* Hincks, 363; *N. ruficeps* (Erichson), 363
 Nesogastrinae, 366, **367**
Nesomachilis, 272, 274; *N. australica* (Womersley), 273, 274; *N. queenslandica* Sturm, 274; *N. tamborina* Sturm, 274
Nesoxypilus, 353
 nests: of Hymenoptera, 224, 225, 262, 270, 276, 278, 386, 441, 473, 476, 481, 530, 538, 539, 560-1, 613, 614, 619, 620, 621, 624, 651, 669, 763, 782, 848, 877, 880, 887-8, 899, 925, 927, 928-9, 936, 942, 943, 961, 966, 967, 969, 973, 975-80 *passim*, 984-7 *passim*, 990-1000 *passim*; of Isoptera, 222, 225, 226, 262, 270, 333, 337-9, 478, 497-8, 627, 637, 646, 749, 763, 771, 782, 850; of social insects, 95, 257, 642, 644; of vertebrates, *see* birds; mammals; rodents
Netelia, 920, 923, 927, 944
Netrocoryne repanda Felder and Felder, 893
 Neumann, D., 76
 Neunzig, H. H., 825
Neuquenaphis, 456
Neurigona, 760
Neurobasis australis Selys, 307
 neurobiology, studies in, 247-9
Neurochaeta, 766; *N. inversa* D. McAlpine, 776, 777
 Neurochaetidae, 734, 766, 767, 776, **777**
Neuroctenus, 497
Neurogalesus, 950
 neurohaemal organs, 50
 neuropeptides, 249-50
 Neuroptera, 23, 25, 28, 44, 54, 64, 67, 72, 77, 78, 88, 90, 91-2, 133, 137, **138**, 142, 173, **175-6**, 178, 179, 209, 415, 441, 516, 518, **525-42**, 556, 758, 929, 940, 945, 950, 956, 960, 969, 986, 987, 993
 Neuropterida, 15, 133, 136, **137-8**, 144, 156, 171, **175-6**
 neuropteroid orders, 137-8, 544, 553
 Neurothidae, 529-35 *passim*, **537**
Neurorthus, 537
 neurosecretions, 35, 50
Neurospora (FUNGI), 248
Neurothemis, 310; *N. stigmatizans* (Fabricius), 310
 neurotoxins, 758
 neurotransmitters, 42, 43
 New, T. R., 81, 110, 187, 194, 410, 412, 414, 419, 420, 525, 536-42 *passim*, 644, 646, 956
 New Caledonia, 180, 181, 182, 185, 191, 192, 284, 307, 325, 327, 473, 480-5 *passim*, 497, 515, 563, 608, 626, 647, 679, 747, 935, 953, 987, 991
 New Guinea, 96, 181, 182, 191, 193, 195, 196, 206, 221, 222, 271, 274, 284, 285, 293, 306, 307, 309, 340, 342, 364, 384, 388, 393, 401, 403, 404, 408, 410, 415, 419, 425, 442, 456, 468, 473, 478, 481, 482, 484, 493, 496, 497, 530, 535, 536, 539, 541, 563, 565, 611, 614, 621, 634, 640, 651, 664, 669, 671, 679, 680, 682, 687, 690, 693, 694, 709, 714, 715, 732, 744, 747, 748, 749, 755, 770, 771, 773, 777, 782, 783, 786, 795, 800, 831, 857, 864, 872, 873, 883, 885, 893, 895, 896, 899-904 *passim*, 910, 930, 932, 934, 935, 944, 945, 950, 952, 961, 963, 964, 977, 979, 980, 991
 New South Wales Department of Agriculture, 205, 206, 212
 New South Wales Entomological Society, 198, 203, 204, 205, 217, 236
 New South Wales Forestry Commission, 206
 New South Wales Geographical Society of Australasia, 206
 New South Wales Government Entomologist, 198, 205, 206
 New South Wales Linnean Society, 203, 236
 New South Wales Naturalists' Society, 206
 New South Wales Royal Zoological Society, 215
 New South Wales Surveyor General, 202
 New Zealand, 107, 180-92 *passim*, 195, 197, 209, 261, 262, 263, 264, 268, 271, 274, 283, 284, 285, 289, 294, 314, 315, 317, 318, 325, 340, 363, 391, 449, 456, 461, 469, 470, 479, 480, 482, 483, 488, 497, 501, 513, 519, 520, 521, 531, 535, 537, 539, 563, 622, 626, 634, 635, 641, 642, 645, 647, 650, 651, 653, 665, 667, 668, 669, 671, 673, 678, 679, 680, 682, 694, 699, 701, 709, 714, 715, 717, 733, 741-51 *passim*, 755, 756, 761, 762, 768, 771, 777, 795, 805, 807, 809, 834, 835, 837, 865, 885, 899, 932, 935, 942, 948, 950, 952, 953, 957, 965, 975, 991, 1000
 Newman, L. J. W., 199, 207, 216
Newmanoperla, 318
Newstedia floccosa (Westwood), 459
 Newton, A. F., 176, 544, 564, 565, 608, 617-25 *passim*, 631, 640, 641, 644, 660
Nezara viridula (Linnaeus), 232-3, 430, 431, 433, 434, 438, 442, 508-9
Niastama, 493
 Nicaginae, **626**
 Nicholas, W. L., 104, 107
 Nicholls, D. G., 69, 424
 Nichols, S. W., 3, 609
 Nicholson, A. J., 99, 100, 198, 199, 209, 211, 214, 215, 219, 237, 239-40, 245-6, 247, 755
Nicholsonomyia, 751
 Nickerson, J. C., 386
 Nicolas, G., 377, 391
Nicoletia, 276; *N. phytophila* Gervais, 276
 Nicoletiidae, 130, 275, 276, 277, **278**
 Nicoletiinae, 276, 277, **278**
Nicrophorus, 562
Niditinea fuscella (Linnaeus), 850
 Nielsen, A., 790, 793
 Nielsen, E. S., 3, 140, 817, 825, 833-44 *passim*, 848, 850, 851, 865
 Nielsen, M. W., 468
 Nieukerken, E. J. van, 841, 842
Nigilgia adjectella Walker, 871, 876
 Nikitskii, N. B., 656
 Nikritin, L. M., 178
Nilaparvata lugens (Stål), 476, 688, 690
 Nilionidae, *see* Tenebrionidae
Ningauit tmalet (MAMMALIA), 88
Ningulus, 777
Niphopyralis chionesis Hampson, 888
Niphta, 747
 Niponiinae, **618**
 Niponius, 618
Nipponorthezia guadalcanalia Morrison, 459
 Nirvaninae, 442, **470**
Nisxia, 476
 Nisiinae, **476**
Nitela, 991
 Nitidulidae, 178, 551, 561, 563, 564, 572, 573, 578, 580, 583, 586, 588, 591, 599, 602, 645, 648, **649-50**, 659, 965
 Nitidulinae, **650**
Niwratia elongata Jell and Duncan, 174
 Nix, H., 183, 196, 197
 Nixon, G. E. J., 950
 Noble-Nesbitt, J., 276
 Nocticanace, 779
Nocticola, 320, 328; *N. australiensis* Roth, 323
 Nocticolidae, 323, 325, 326, **328**
 Noctuidae, 38, 44, 64, 69, 88, 90, 104, 107, 108, 174, 228, 442, 822-32 *passim*, 880, 905, 906, 909, **910-14**, 945, 948, 949, 967, 969, Pl. 8
 Noctuiniae, **914**
 Noctuoidea, 818, 832, 833, 846, 885, 895, **905-14**
Nodulicoccus, 459
 nodulus, of Psocoptera, 413
 nodus, in Odonata, 297
 Nogodiniidae, 443, 474, 475, 477, **479**, 972
Nola, 909, 913
 Nolinae, 228, 831, 905, 907, **913**
Noliphus erythrocephalus Stål, 504
Nomada, 993, 995, 999
Nomadacris, 391; *N. guttulosa* (Walker), 377, 378, 390, 391; *N. septemfasciata* (Serville), 10
Nomadina, 938
 Nomadinae, **999**
 Nomadini, 999

- nomen novum*, 122
nomen nudum, 122
 nomenclature, 109, 121-3, 200
Nomia, 998; *N. australica* Smith, 997
 Nomiinae, 995, 997, **998**
Nomioides, 995, 998
 Nomioidini, 998
 Noonan, G. R., 189, 195
 Nordlander, G., 954, 956
 Norfolk I., 182, 185, 192, 202, 260, 278, 483, 539, 634, 642, 673
 Norris, K. R., 68, 72, 79, 92, 219, 232, 731, 780, 782
 Northern Territory (N.T.): Government Entomologist, 208
 Nosodendridae, 564, 565, 572, 602, 641, **642**, 643
Nosodendron, 641, 642; *N. australicum* Lea, 643
Nosopsyllus, 711, 716; *N. fasciatus* (Bosc), 95, 708; *N. londiniensis* (Rothschild), 715
Nososticta, 307; *N. pilbara* Watson, 300; *N. solida* (Hagen in Selys), 305, 307, Pl. 1
Notasacantha, 677
 notauli, 918
Notelaea (BOT.), 493
 Noteridae, 550, 558, 560, 564, 567, 592, 609, 614, **615-16**
Nothancyla, 539
Nothoaesteia, 767, 777
 Nothochrysiinae, 531, **539**
Nothoderodontus, 563; *N. darlingtoni* Lawrence, 641; *N. gowrayi* Crowson, 641
Nothoderus, 742
Nothofagus (BOT.), 181, 194, 263, 264, 442, 454, 456, 480, 498, 891, 948, 965; *N. moorei*, 678
Nothomyrmecia, 921, 940, 983-9 *passim*; *N. macrops* Clark, 983, 984, 987
 Nothomyrmeciinae, 983, 984, **987**, 989
Nothotrichocera, 742; *N. cingulata* Alexander, 725
 Nothybidae, 734, 765, 770
 Nothyboidea, *see* Diopsoidea
Notiobiella, 538, 539; *N. viridis* Tillyard, 539
Notiopsylla, 711, 714; *N. kerguelensis* (Taschenberg), 713
Notoaeschna, 309; *N. sagittata* (Martin), 301
Notobrachypterus, 649
Notocampa, 271; *N. leae* (Silvestri), 271; *N. westraliense* (Womersley), 271
Notocerastes, 665
Notocercyon, 618
Notocrabro, 991
Notodascillus, 566, 631; *N. sublineatus* Carter, 549, 631
 Notodontidae, 98, 99, 228, 823, 831, 832, 903, 905, **906**, 908, 913
Notojapyx, 271; *N. mjobergi* (Silvestri), 271; *N. tillyardi* (Silvestri), 271; *N. tillyardi pagesi* Paclt, 271
Notolabis, 366; *N. occidentalis* (Kirby), 363
Notolibellula, 310
Notoligotoma, 409; *N. hardyi* (Friederichs), 407, 408, 409; *N. nitens* Davis, 405, 409
 Notoligotomidae, 405, 407, 408, **409**
Notomicrus, 616
Notoncus, 989; *N. ectatommoides* (Forel), 988
Notonecta handlirschi Kirkaldy, 488
 Notonectidae, 72, 73, 171, 434, 435, 442, 443, **488**, 489
 Notonectinae, **488**
 Notonectoidea, 440, 443, 445, 446, **488**
Notonemoura, 314, 318-19
 Notonemouridae, 163, 182, 313-17 *passim*, **318-19**
Notonomus, 610, 614; *N. violaceus* (Laporte), 546
Notoperla, 317
 Notoptera, *see* Grylloblattodea
Notosalpingus, 671
Notostigma, 613, 986
Nototherium (MAMMALIA), 79
Notriolus, 634, 639
Notuchus, 442
 notum, 9
Nousia, 287, 292, 293; *N. (Australonousia)*, 292; *N. fuscula* (Tillyard), 292
Novacastrina nothofagi Selman, 678
Novacerus, 263
 Noyes, J. S., 956, 957, 968
Nullabora flavoguttata Tindale, 356
 numerical taxonomy, 115
 Nur, A., 197
 Nur, U., 437, 458
Nurunderia chrysopoides (Walker), 479
 nut trees, pests of, 391, 461, 502, 863, 873-4, 899, 904
 nutrition, 58
 Nutting, W. L., 133, 561, 642, 989
Nychia sappho Kirkaldy, 488
Nyctemera, 909, 912; *N. amica* (White), 907, 909
 Nyctemerinae, *see* Arctiinae
Nycteola, 914
 Nycteribiidae, 27, 93, 94, 207, 731, 735, 768, 785, **786**
 Nycteriboscinae, **786**
Nycterimorpha, 751
Nyctiophylax repandus Neboiss, 804
Nyctozoilus, 667
 nygma, 527, 789
 Nyholm, T., 624
 nymph, 65, 151
 Nymphaeaceae (BOT.), 676
 Nymphalidae, 40, 101, 107, 829, 830, 832, 894, 895, 896, **897-8**, 899, Pl. 8
 Nymphalinae, **898**
Nymphes, 528, 534, 540, 541; *N. myrmeleonides* Leach, 529, 530, 540
 Nymphidae, 176, 529, 530, 531, 532, 534, **540-1**
 Nymphocorinae, **481**
Nymphocoris hilli Stys, 481
 Nymphomyiidae, 728, 733, 735
 Nymphomyiomorpha, 733
 Nymphulinae, 886, **887**
Nysius, 441; *N. clevelandensis* Evans, 434, 501; *N. vinitor* Bergröth, 108, 502
 Nyssoninae, 990, **991-3**, Pl. 5
 Nyssonini, 990, 991
Nyungara, 293

 Oberthuerellinae, 956
 oblongum cell, 550
 O'Brien, C. W., 682
 O'Brien, R. W., 336
 Obtectomera, 833
Occasitermes, 347; *O. occasus* (Silvestri), 347; *O. watsoni* Gay, 347
Occinirvana eborea Evans, 470
 occipital foramen, 5
 occiput, 5
Occultitermes, 341, 347; *O. aridus* Gay, 347; *O. occultus* (Hill), 347
 ocellus, 6, 48-9
 Ochodacidae, 564
Ochollissa, 581, 669, 671; *O. humeralis* Fairmaire, 670
Ochrogaster, 831, 908; *O. lunifer* Herrich-Schäffer, 228, 830, 887, 907-8
 Ochromolopinae, **882**
Ochromolopsis, 882; *O. cornutifera* (Gaedike), 882
 Ochs, G., 616
 Ochteridae, 443, **487-8**
 Ochteroidea, 440, 443, 445, 446, 486, **487-8**
Ochterus australicus Jaczewski, 488
 Ochthebiinae, **619**
Ochthebius, 619, 620
 Ochthiphilidae, *see* Chamaemyiidae
Ochytica kurandica Arenberger, 885
Ocirrhoe, 508
Ocnera, 667
 O'Connor, B. A., 687, 688
 octenal, *trans*-2-, 229

Octotemnus, 662
Octotoma, 563; *O. scabripennis* Guérin-Méneville, 677
Ocybadistes, 895
 Ocydromiinae, 760
 Odacanthini, 613
 Odiniidae, 734, 766, **775**
 Odonata, 11-20 *passim*, 26, 30, 38, 39, 40, 41, 48, 49, 51, 52, 58, 61-5 *passim*, 72-7 *passim*, 90, 91, 101, 106, 111, 120, 130, 131, **132**, 142, 148, 150, 160, **162**, 178, 179, 182, 196, 209, 284, **294-310**, 314, 339, 732, 746, 757, 927, 969, 970, 993, Pl. 1
 odonatoid orders, 143, 148-56 *passim*, 159, 160-2
Odonatologica (journal), 294
Odontacolus, 954
Odontella, 260
 Odontellidae, 258, 259, **260**
 Odontiinae, **889**
 Odontoceridae, 795, 796, 798, 800, 808, **813**, 814, 815
Odontogomphus, 309
Odontomutilla, 977
Odontomyia, 755; *O. scutellata* Macquart, 754
 Odontotarsinae, **508**
Odonthripiella, 515
Odopoa, 962
 Oecanthinae, 379, 384, 385, **386**
Oecanthus rufescens Chopard, 385
Oecetis, 789, 795, 815; *O. minasata* Mosely, 808; *O. pechana* Mosely, 791
Oechalia, 509; *O. schellembergii* (Guérin-Méneville), 509
 Oeconesidae, 788, 793-9 *passim*, 804, **805-7**, 812, 815
 Oecophoridae, 819, 821, 831, 832, 855, 859, **860-4**, 867, 868, 961, Pl. 6, Pl. 7
 Oecophorinae, 859, **860**
Oecophylla, 830, 899, 961, 980, 989; *O. smaragdina* (Fabricius), 84, 222, 226, 228, 887-8, 985, 1000
Oecothea, 772
Oedaspoides, 771
 Oedemeridae, 27, 552, 561, 563, 565, 571, 588, 599, 602, 640, 660, 667, **668**
 Oedemerinae, **668**
 Oedipodinae, 374, 389
Oedischia, 164; *O. williamsoni* Brongniart, 164
 Oedischiidea, 164, 165
Oedosmylus, 537
 Oelrichs, P. B., 88
Oenochroma, 889-90, 891, 892; *O. vinaria* Guenée, 890
 Oenochromiina, 889
 Oenochrominae, 831, **889-90**
 oenocytes, 61
Oenosandra, 913; *O. boisduvallii* Newman, 907
Oeonistis entella (Cramer), 910, Pl. 7
 Oeser, R., 924
 oesophagus, 56
 Oestridae, 96, 730, 732, 735, 763, **784-5**
Oestrus ovis Linnaeus, 784, 785
 O'Farrell, A. F., 294, 307
Ogcodes, 756; *O. basilis* (Walker), 756
Ogeria, 481
 Ogeriinae, **481**
 Ogloblin, A. A., 685, 694
Ogmograptis, 852, 854; *O. scribula* Meyrick, 852
Ogygiodes, 838
Ogyris, 898, 899; *O. genoveva* Hewitson, 899, Pl. 8
Ohakunea, 749
 Ohmart, C. P., 80
Otiophysella, 480
Olbiogaster, 733, 747
 Oldroyd, H., 717
 Oleaceae (BOT.), 449
 Olethreutinae, **873-4**

- Olethreutini, 873
Oliarces, 535
Oliarus, 476; *O. felis* Kirkaldy, 476; *O. lubra* Kirkaldy, 475, 476
Oligocene Epoch, 141, 142, 144; in Australia, 194
Oligochaeta, 760
Oligochrysa, 534, 539; *O. lutea* (Walker), 539
Oligodectoides tindalei Rentz, 372
oligoleptic bees, 994
Oligomyrmex, 982
Oligoneuridae, 188, 281, 285
Oligoneuriinae, 280
oligophagy, 113
Oligosita, 969
Oligositinae, **969-70**
Oligotoma, 408, 409; *O. nigra* (Hagen), 408, 409; *O. saundersii* (Westwood), 409
Oligotomidae, 406, 407, 408, **409**
Oliveira, S. J., 685
olives, pests of, 494
Olixon, 974, 976
Ollason, J. G., 362
Olliff, A. S., 198, 199, 203, 205, 206, 207
Olmi, M., 973
Olonia, 479
Omaliinae, 544, 563, **622**, 623
Omaliium, 623
Omaniidae, 75, 443, **485**
Ometidae, 564
Omicrini, 563
Omma, 546, 607; *O. mastersi* Macleay, 607, 608; *O. sagitta* Neboiss, 607; *O. stanleyi* Newman, 549, 607
Ommatidae, 178, 549, 564, 567, **607**, 608
ommatidium, 6, 47
Ommatius, 758
ommatrichia, 719
Ommexechidae, 378
ommochromes, 40, 248
omnivory, 57, 92, 276, 314, 363, 376, 381, 382, 384, 529, 816
Omodeo, P., 153, 154
Omophron, 609
Omorgus, 627; *O. australasiae* (Erichson), 626; *O. candidus* (Harold), 566
Omphale, 969
Omphalea (BOT.), 893
Omyta controlineata (Westwood), 694
Onagraceae (BOT.), 680, 904
Onceroptyga, 888
Oncocerca (NEMATODA), 746
Oncocephalus, 496; *O. confusus* Reuter, 437, 495
Oncocoris, 508; *O. punctatus* Mayr, 437
Oncomeris, 508, Pl. 3
Oncopeltus, 55; *O. sordidus* (Dallas), 502
Oncopera, 818, 820, 829, 839, 841
Oncopodura, 255, 263; *O. tiegsi* Womersley, 262
Oncopoduridae, 255, 258, 259, 262, **263**
Oncothrips tepperi Karny, 512
Oncylocotis, 433, 480, 481; *O. tasmanicus* (Westwood), 481
onions, pests of, 513, 763, 780
Oniscigaster, 188
Oniscigastridae, 283, 285, 286, 287, **288-9**, 291
Oniticeellini, 630
Onitini, 630
Onitis, 630; *O. aygulus* (Fabricius), 55
Onosandrus, 380
Onthophagini, 630
Onthophagus, 98, 630; *O. declivis* Harold, 628, 629; *O. gazella* (Fabricius), 629
Ontiscus, 500, 502
ontogeny, 118
Onychiuridae, 253-60 *passim*, **261**
Onychiurinae, **261**
Onychiurus, 255, 257
Onychojapyx, 154
Onychomyrmex, 984, 985
Onychophora, 127, 145, 146
oocytes, 62, 63
Oodini, 612
Ooencyrtus, 968
oogenesis, 50, 62, 104
ootheca, 18, 19, 322, 323-4, 327, 333, 342, 350, 351, 352, 562, 642, 780, 941, 954, 962, 963, 967, 968, 969
Opatrini, 665, 667
operational taxonomic units (OTUs), 115
operculum: of abdomen, 452, 464, 467, 559, 634, 635, 636; of auditory organ, 465; of egg, 396, 406, 423, 425, 437, 488, 511; of female Phasmatodea, 395
Ophelimus, 969
Ophelosia, 965
Ophiderinae, *see* Catocalinae
Ophiomyia lantanae (Froggatt), 775
Ophion, 945
Ophioninae, 944, **945**
Ophiusa coronata (Fabricius), 911
Ophyra, 780; *O. rostrata* (Robineau-Desvoidy), 781
Opiinae, 947, **948**
Opiliones (opilionids) (ARACHNIDA), 143, 257
opisthognathy, 7
Opisthoplatys, 496
Opisthopsis, 989; *O. haddoni* Emery, 986
Opius, 732
Opler, P. A., 175
Opodiphthera, 828, 902, 903-4; *O. eucalypti* (Scott), 904, 905; *O. helena* (White), 54, 901, 904; *O. loranthi* (Lucas), 213, 904
Opogona, 850; *O. glycyphaga* Meyrick, 850; *O. omoscopia* (Meyrick), 850
Opomyzidae, 734, 774
Opomyzoidea, 734, **774-7**
Opostega, 842; *O. gephyraea* Meyrick, 845
Opostegidae, 821, 825, 832, 833, 841, **842**, 845
Opuntia (BOT.), 112, 210, 232, 442, 461, 563, 831, 887; *O. inermis*, 210, 232; *O. stricta*, 232; *O. vulgaris*, 210, 231
Orasema, 966
Oraseminae, **966**
Orasemorpha, 966
Orchamoplatus citri (Takahashi), 451, 452
orchard pests, 90, 205, 209, 212, 232, 325, 340, 364, 391, 442, 452, 459, 461, 463-4, 493, 502, 503, 504, 508, 509, 513, 562, 650, 673, 678, 682, 690, 732, 771, 831, 854, 856, 863, 873, 874, 879, 881, 880, 889, 896, 912, 929, 934, 948, 962
Orchesellinae, 259, **261**
Orchesia, 663
Orchesiini, 663
orchids, 85, 237, 325, 515, 677, 732, 926, 944, 978, 987
Orcopagia monstrosa Pascoe, 662
Ord, M., 202
order, 109
ordination methods, 115-16
Ordovician Period, 141, 142, 143
Orectognathus versicolor Donisthorpe, 986
Oreixenica, 897
Oreta, 891; *O. jaspidea* (Warren), 890, 892
Orfelia, 751; *O. fenestratis* (Skuse), 750
Orgeriinae, **478**
Orgilinae, 948, **949**
Orgilus, 949
Orgyia, 828, 908
Oribatidae (ACARINA), 621
oriental fruit moth, *see* *Grapholita molesta*
oriental rat flea, *see* *Xenopsylla cheopis*
Oriental Region, 180, 182
oriental rice thrips, *see* *Stenchaetothrips biformis*
Oristicta: *O. filicicola* Tillyard, 307; *O. vallisii* (Fraser), 307
Orius: *O. armatus* Gross, 489; *O. tantillus* Motschulsky, 489
Ormocerinae, 956, 962, 964, **965**
Ormyridae, 930, 957, 959, **962**, 964
Ormyromorpha, 965
Ormyrus, 962, 964
Ornithomyiinae, **785**
Ornithoptera, *see* *Troides*
Orosius argentatus (Evans), 471, 472
Orphanotrophium, 671
Orphlinae, 642
Orphilus, 641
Orphnephilidae, *see* Thaumaleidae
Orr, H. A., 112
Orsillinae, 501, **502**
Orsodacninae, 672, 676
Ortalidae, *see* Otidae
orthandry, 927, 931
Orthetrum, 310; *O. caledonicum* (Brauer), 302, 303, 310
Orthezia, 459; *O. insignis* Browne, 459, 460
Ortheziidae, 434, 443, 458, **459**, 460
Orthocentrinae, **945**
Orthocerus, 581
Orthocis, 662
Orthocladinae, **746**
Orthodera ministralis (Fabricius), 351, 355
Orthoderinae, 350, 353, **355**
Ortholferia, 785; *O. macleayi* (Leach), 785
Orthopelmatinae, 945
Orthoperini, 658
Orthoperus, 658, 660
Orthophlebiidae, 172, 173
Orthoptera, 4, 7, 10, 11, 15, 16, 19-24 *passim*, 31, 34-44 *passim*, 49, 51, 52, 56-65 *passim*, 69, 70, 72, 77, 88, 90, 92, 97, 100, 101, 104, 107-8, 113, 119, 121, 132, 133, **134**, 142, 143, 150, 163, **164**, 178, 179, 181, 182, 207, 223, 224, 225, 229, 243, 246, 248, 251, 311, 320, 348, 357, 358, **369-93**, 394, 396, 614, 647, 685, 688, 690, 693, 694, 755, 758, 783, 948, 954, 962, 968, 974, 991, Pl. 2
orthopteroid orders, 12, 17, 21, 22, 143, 149, 151, 153, 156, 163-5, 178, 179, 275, 320, 357, 358, 360, 362, 405, 410, 768
Orthorhinus cylindrirostris (Fabricius), 681, 682
Orthorrhapha, 29, 30, 174, 718, 721, 724, 726, 729-35 *passim*, **751-61**
Orthosmittia reyei Freeman, 744
Orthotylinae, **492-3**
Orthotylini, 493
Orthotylus, 493
Orussidae, 918, 920, 923, 928, 930, 931, **932-4**, 935, 938, 939, 963
Orussobaius, 934
Orussonia, 934
Oryctolagus cuniculus, *see* mammals: rabbit
Oryzaephilus mercator (Fauvel), 651; *O. surinamensis* (Linnaeus), 651
Osawa, S., 244
Oscinidae, *see* Chloropidae
Oseto, C. Y., 825
O'Shea, M., 250
Osidryas, 880
osmeterium, 56, 92, 830, 895
osmoregulation, 41, 254, 257, 289, 624, 636
Osmylidae, 175, 176, 525-33 *passim*, **535-7**, 540
Osmyloidea, 531, **535-7**
Osmyllops, 530, 540, 541
Osmylopsychoptidae, 175
Osoriinae, 563, 622, **623**
Osorius, 623
Osrhoes, 838
Ossiannilsson, F., 433, 467
Osteichthyes, *see* fish
Oster, G. F., 989
ostium, 61, 552; bursae, 823, 824
Ostracoda, 195
Ostrinia furnacalis (Guenée), 889
Othniidae, *see* Salpingidae
Othniinae, 588, 606, **669**, 670
Othreis, 912; *O. materna* (Linnaeus), 911
Otiocerini, 477
Otiorrhynchus, 562, 682
Otiteseellinae, **963**

- Otitidae, 734, 765, **770**
 Otitoidea, *see* Tephritoidea
 Otte, D., 112, 182, 376, 384
 Otvos, I. S., 89
Oudemansia, 260
 outgroup, 118
 ovarioles, 62, 63; panoistic, 62; polytrophic, 63; telotrophic (or acrotrophic), 62
 ovary, 62, 63
 Overgaard Nielsen, B., 363
Ovidia, 962
 oviducts, 62, 63
 oviparity, 322, 323, 324, 362, 440, 458, 782, 783, 793
 Oviparosiphidae, 170
 ovipore, 823
 oviposition, 35, 43, 63, 97-8
 ovipositor, 19
 oviraptor, *see* hatching devices
Ovis aries, *see* mammals: sheep
 ovisac, 440, 457
 oviscapt, 783
Ovolara, 634
 ovarioleparity, *see* ovoviviparity
 ovoviviparity, 282, 313, 322, 323-4, 328, 440, 458, 513, 562, 614, 728, 731, 782, 783, 793, 829, 850
 Owada, M., 910
 Owen, D. F., 80
 Owen, H. G., 191, 192
 Owen, R., 114, 237, 249
 owl-flies, *see* Ascalaphidae
 Oxaeidae, 931
 oxalic acid, 91
Oxelytrum, 621
 oxo-2-decenoic acid, (E)-9-, 55
Oxya japonica (Thunberg), 390-1
Oxycanus, 223, 841; *O. diremptus* (Walker), 836
 Oxycareninae, 501, **502**
Oxycarenus, 441, 496, 502; *O. arctatus* (Walker), 502; *O. luctuosus* (Montrouzier and Signoret), 502
Oxychirotia, 883; *O. paradoxa* Meyrick, 882, 883
 Oxychirotidae, *see* Tineodidae
Oxycophina theorina (Meyrick), 884
 Oxycorynidae, 565, 678
Oxyethira columba (Neboiss), 799
 oxygen exchange, 39-42
 Oxyhaloinae, 325, **329**
 Oxyinae, 376, 387, **390-1**
Oxylobium (BOT.), 81, 456
Oxyops, 682
 Oxypeltidae, 565, 672
Oxypius peckorum Newton, 623
Oxyscelio, 954
Oxyserphus, 951, 952
Oxyspirura mansonii (NEMATODA), 325
 Oxytelinae, 622, **623**
 Oxytenidae, 832
 Oxyuridae (NEMATODA), 324
 Ozaenini, 610, 611, 613

 Pace, R., 607
Pachliopta, 896; *P. polydorus* (Linnaeus), 896
Pachycephala (AVES), 986
Pachycoelius, 979
Pachygrontha austrina Kirkaldy, 501
 Pachygronthinae, 501, **502**
Pachymorpha, 404; *P. squalida* Gray, 397, 401
 Pachymorphinae, 396, **404**
 Pachyneuridae, 734
Pachyneuron, 965
 Pachynomidae, 435, 443, 488, 494
Pachypeltis, 493
Pachypeltopsis, 493
Pachyplagia australia Gross, 481
Pachyplagioides, 481
Pachyprosopis, 996
Pachytomoides, 962
 Pachytroutidae, 416, 417, **418**

Pachyura, 680
 Pachyurinae, **680**
 Pacifica, 197
 Paclt, J., 270-8 *passim*
 Paederinae, 622, **624**, Pl. 5
Paederus, 563, 624; *P. cruenticollis* Germar, Pl. 5
 paedogenesis, 562, 731, 749
 Page, R. D. M., 188
 Pagés, J., 269
 Paine, T. A., 123, 243
 Pakaluk, J., 658, 660
 Pal, T. K., 651, 656
 pala, 431, 488
 Palaearctic Region, 180, 182
 Palaeoaphididae, 170
 Palaeocene Epoch, 141, 142; in Australia, 194
Palaeodes, 888; *P. samealis* Hampson, 883
 Palaeodictyoptera, 19, 142, 143, 156, **158**, 178
 palaeodictyopteroïd orders, 143-53 *passim*, 156-9
 palaeoenvironments, of Australia, 193-5
 palaeogeography, 190, 191-3
 Palaeomanteidae, 172
 Palaeomantiscidae, 172
 Palaeomerobidae, 175
Palaeomymar, 960
 Palaeonemouridae, 163
 Palaeontinoidea, 169, 170
 palaeontology, 118, 195-6
Palaeopsylla, 174
 Palaeoptera, 13, 14, 16, 17, 126, 131, 132, 142, 143, 148-53 *passim*, **156-62**, 163, 178, 279, 294
Palaeorhiza, 996
Palaeoscydmaenus, 621
Palaeoses, 838, 839; *P. scholastica* Turner, 836, 838
 Palaeosetidae, 832, 833, 836, **838**, 839
 Palaeozoic Era, 141, 142
 Palaephatidae, 825, 831, 832, 833, 843, **844**, 845
 Palaephatoidea, 819, 821, 823, 832, 833, 837, 843, **844**
Palaestra, 668
Paleticus subereus (Pascoe), 681
Paleuthygramma tenuis Martynov, 167
Palingenia, 282
 Palingeniidae, 284, 285
Pallodes, 649
 Pallopteridae, 734, 766
 palms, 363, 464, 649, 677, 690, 865, 868, 895
Palophagus, 676
 Palophinae, **404**
Palorchestes (MAMMALIA), 79
Palorus subdepressus (Wollaston), 667
 palp (palpus), 8
 Palparinae, 541
 palpifer, 8
 palpiger, 8
 Palpostomatini, 768
 Pamborini, 563
Pamborus, 614; *P. guerinii* Gory, 551; *P. macleayi* Laporte, 610
Pamophion, 945
 Pamphagidae, 378
 Pamphagoidea, 378, 387, **388-9**
 Pamphilidae, 173, 930
Pamphilus, 173, 922
Panacela, 902; *P. lewinae* (Lewin), 830, 901, 902
 Panagaeini, 612
 panbiogeography, 187
 Panchaetothripinae, 513, **515**
 Pandanaceae (BOT.), 464
Pandanus (BOT.), 367, 403, 649, 677, 690, 962
Pandorea (BOT.), 883; *P. jasminoides*, 885
Panesthia, 102, 323, 328-9; *P. australis* Brunner, 328, 329; *P. cribrata* (Saussure), 329; *P. laevicollis* Saussure, 324, 329
 Panesthiinae, 320-5 *passim*, **328-9**
 Pangaea, 191

 Pangoniinae, 754, **755**
 Pangoniini, 755
 Panheteroptera, 482
 PANKEY, 123
 Pankhurst, R. J., 123
 Pannota, 285, **293**
Panocalda, 756
Panops, 756
Panorpa, 699, 700
 Panorpidae, 139, 696-701 *passim*
 Panorpoidea, 697, 698, 699, 701
 panorpoïd orders, 19, 23, 137, 138-40, 817
 Panorpoidea, *see* Mecoptera
Panstenon, 965
 Panstenoninae, **965**
Pantala flavescens (Fabricius), 310
 Pantalinae, 302, **310**
 Pantheinae, 912
Pantolytomyia, 950
 Pantophthalmidae, 734
Pantorhytes, 682
Paoliella, 456
 Paoliidae, 168
 paper nest wasps, *see* Polistinae; Vespinae
Papilio, 56, 895, 898; *P. aegaeus* Donovan, 99, 895; *P. anactus* Macleay, 895-6; *P. demoleus* Linnaeus, 896; *P. ulysses* Linnaeus, 896, Pl. 8
 papiliochromes, 40
 Papilionidae, 40, 56, 99, 182, 830, 831, 832, 894, **895-6**, 898, Pl. 8
 Papilioninae, **895-6**
 Papilionini, 895-6
 Papilionoidea, 819, 822, 828, 829, 832, 833, 846, **895-9**
 papillae anales, of Lepidoptera, 823
 Papp, L., 717, 773, 775
Parabaeus, 953
 Paraboloponinae, **472**
Paraborniella, 74, 745
Paracalais, 637; *P. gibboni* (Newman), Pl. 4
Paracapratermes, 346; *P. primus* (Hill), 343
Paracardiophorus, 638
Paracladura, 742
Paraclius, 727, 760
 paraclypeus, 429
Paracolletes, 695, 995
 Paracolletini, 995, 996
Paracrabro, 991; *P. froggatti* Turner, 992
 Paracucujinae, 194, 605
Paracucujus, 650; *P. rostratus* Sen Gupta and Crowson, 194, 648, 650
Paracyphononyx, 975
Paradasyhelea, 746
 Paradorydiini, 472
Paraepermenia santaliella Gaedike, 882
 parafacials, 718
Paragia, 980, 981
Paragioxenos, 691, 695
 paraglossa, 8
Paragryllacris, 90
Parahebe perfoliata (BOT.), 885
 Parahelopinae, **665**
Paraheterodoxus insignis Harrison and Johnston, 422, 423
 Parahygrobiidae, 178
Parainocellia resslii Aspöck and Aspöck, 522, 523
 Parainsecta, *see* Ellipura
 Parajapygidae, 269, 270, **271**
Parajapyx, 270, 271; *P. swani* Womersley, 271
Paralastor, 926, 980, 981; *P. constrictus* Perkins, Pl. 6
 paralectotype, 123
Paralichas, 636
Paralimnichus, 570, 634
Paralimnophila setulicornis (Alexander), 741
Paralitomastix, 968
 parallelism, 114
Paralucia, 899; *P. aurifera* (Blanchard), 894
 Paralyptinae, 934
 paralysis of prey, 92, 496, 640, 924, 925, 928-

- 9, 943, 971, 973, 975, 979, 990-3
Paramacrocera, 751
 Paramecoptera, 172
Parameletus, 188, 282; *P. columbiae* McDun-
 nough, 283
 paramere, 22-3
Paramesius, 950
Paramixia, 493
 Paramonov, S. J., 181, 241, 733, 753-63 *pas-
 sim*, 782
Paramorpha, 881; *P. rhachias* Meyrick, 881
Parandra, 570, 584, 673
 Parandrinae, 584, 672, **673**
 parandrite, 22
 Paraneoptera, 132, 133, **135-6**, 153
Paranephrites xenus Riek, 664
Paranisops, 488; *P. inconstans* Hale, 489
 paranotal lobes, 12
 paranotal theory (of wing origin), 12
 Paraoxyphilinae, 350, **353-5**
Paraoxyphilus, 353; *P. tasmaniensis* Saussure,
 351, 354
Parapalaeosepsis plebeia de Meijere, 769
Parapanesikia, 323, 329
 Paraphrynoveliidae, 443, 482
Paraphylax, 945
 paraphyletic group, 117
 paraphyly, 117
Parapistomyia, 742
 Paraplecoptera, 142, 144, **162**, 167, 178, 357
Parapoyx tullialis (Walker), 887
 paraproct, 19
Parapsammophila, 991
 parapsis, 918
Parapsyllus, 711, 714; *P. australiacus* Roth-
 schild, 710
Parasabatnca, 174
Parasaissetia nigra (Nietner), 463
Parasaphodes, 965
 Parasaphodinae, **965**
Parasarcophaga, 782; *P. crassipalpis* (Mac-
 quart), 782
Parasemus, 653
 Parasialidae, 176
Parasipylloidea, 401; *P. granulosa* (Brunner),
 396
 parasites of insects, *see* classes or orders of
 parasites
 parasitic insects, 93-8: Coleoptera, 324, 562,
 614, 622, 631, 651, 656, 664, 668, 929;
 Dermoptera, 364; Diptera, 352, 364, 377,
 400, 408, 441, 562, 731, 732, 755, 756,
 758, 771, 780, 782, 783-5, 831, 929;
 Hemiptera, 439, 442; Hymenoptera, 304,
 324, 352, 377, 388, 400, 408, 415, 441,
 513, 530, 562, 732, 831, 917, 924-31 *pas-
 sim*, 935, 936, 938-74, 975, 977-9, 980,
 998; Lepidoptera, 441, 830, 877, 879, 880;
 Neuroptera, 528, 530, 538; Phthiraptera,
 421-8; Siphonaptera, 705-16; Strepsiptera,
 441, 684-95, 929
 parasitic insects, hosts: birds, 93, 94, 96, 421-
 8 *passim*, 439, 490, 494, 653, 708, 714,
 715, 716, 780, 785; centipedes, 97; earth-
 worms, 97, 98, 782; frogs, 96, 780; insects,
 96-7, *see also* orders; isopods, 97; mam-
 mals, 364, 421-8 *passim*, 705-16 *passim*,
 784-5; millipedes, 97; planarians, 97, 750;
 snails, 97, 768, 782; spiders (including
 eggs), 97, 530, 538, 756, 780, 782, 829,
 860, 928, 943, 944, 945, 953, 954, 962,
 968, 969, 975; ticks, 97, 968
 parasitoids, 93, 97-8, 562, 614, 622, 631, 651,
 656, 663-4, 668, 684, 694, 768, 778, 928;
see also parasitic insects
 parasocial insects, 103
 parastemite, 550
 parastigma, 921
Parastivalius, 713, 715; *P. novaeguineae*
 (Rothschild), 715
Parastizopus armaticeps (Péringuey), 554
 parategula, 979
 paratergite, 721, 967
Paratettix, 392; *P. argillaceus* (Erichson), 393
Paratillus carus (Newman), 646
 Paratitanidae, 165
 Paratrachoptera, 174
 paratype, 123
 Paraxeninae, **695**
Paraxenylla, 261
 parempodia, of Hemiptera, 431
 parenchyma-feeding, 438, 439, 442, 468, 479,
 853
 parental care, 101, 102, 270, 324, 329, 352,
 363, 407, 408, 440-1, 487, 562, 614, 928,
 929, 934, 973, 983
 Parenti, L., 188, 190, 197
 Parentia, 761
 Parentonium, 646
Parephedrus relictus Stary and Carver, 948
 Parisolabidinae, *see* Isolabellinae
Parisolabris, 367; *P. spryi* Burr, 363
 Parker, H. L., 685
 Parker, S. P., 24
 Parkinson, S., 226
 Parnassiinae, 895
Parnkalla muelleri (Distant), 465
Parochlus, 189; *P. araucanus* Brundin, 189; *P.
 kiefferi* (Garrett), 189
Paromarteon, 669
Paromius gracilis (Rambur), 501
 Paronellidae, 258, 259, **262**
Paronellides, 262; *P. mjobergi* Schött, 262
Parophtis australis (Erichson), 673
 Paropsina, 556, 678, 945, 948, 952, 965, 968
Paropsis, 561, 562, 678; *P. atomaria* Olivier,
 79, 80; *P. charybdis* Stål, 78, 678
Paropsisterna, 678; *P. beata* (Newman), 557
 Paroryssidae, 175
Parrhinotermes, 333, 345; *P. queenslandicus*
 Mjöberg, 345
 pars stridens, 626
 parsimony criterion, 118
 parsley, pests of, 453
 Parsons, P. A., 182, 250
Parsonsia (BOT.), 858; *P. velutina*, 897
 parthenogenesis, 251, 256, 273, 276, 282,
 324, 325, 352, 371, 377, 386, 388, 394,
 396, 399, 415, 424, 440, 452, 453, 454-5,
 458, 470, 513, 562, 642, 731, 762, 829,
 927
 Pasfield, G., 211
 Pass, G., 362
 Passalidae, 101, 102, 556-64 *passim*, 568,
 599, 626, **627**
Passandra, 553; *P. (Hectarthrum)*, 651;
P. heros (Fabricius), 652
 Passandridae, *see* Cucujidae
 Passandrinae, 562, 576, 589, 597, **651**, 652
 passerines (Passeriformes) (AVES), 96, 244,
 423, 427
Passeromyia, 780; *P. indecora* (Walker), 96
Passiflora (BOT.), 898
 passion fruit, pests of, 461, 479, 504
 Pasteels, J. M., 561
 pastures, pests of, 108, 231, 256, 257, 261,
 262, 264, 340, 346, 377-8, 384, 386, 391,
 502, 507, 562, 629, 630, 631, 637, 755,
 831, 840, 841, 860, 868, 887, 889, 914
Pataeta carbo (Guenée), 912-13
 patagia, of Lepidoptera, 818
 Patel, J. D., 461
 patella, 11, 145
 Paterson, H. E. H., 112, 780
Patersonia (BOT.), 887
 pathogens: *see* bacteria; fungi; Protozoa;
 viruses
Patriella exigua (ECHINODERMATA), 793
 Paton, D. C., 247
 Paterson, C., 110, 114-20 *passim*, 127, 196,
 243
 Paulian, R., 565, 627, 660
 Pauliniidae, 378
 Paulus, H. F., 126, 127, 136, 137, 138, 634
 Pauloccephalinae, **449**
 Pauropoda (MYRIAPODA), 26, 31, 127
 Paussinae, 554, 561, 592, 611, **613**, 614
 Paussini, 610, 611, 613
 Paviour-Smith, K., 662
 Pavlov, I. P., 249
 pawpaw, pests of, 325, 504
 Paxylommatinae, 945
 peaches, pests of, 455, 889
 Peacock, E. R., 642
 Peacock, W. J., 245, 390, 731
Pealius azaleae (Baker and Moles), 452
 peanuts, pests of, 489, 677
 pear and cherry slug, *see* *Caliroa cerasi*
 pear trees, pests of, 934
 Pearman, G. I., 247
 Pearman, J. V., 416
 Pearman's organ, 413, 415
 Pearson, D. L., 614
 Pearson, R. G., 74, 293
 peas, pests of, 677
 Peck, S. B., 620, 621, 627
 Peckham, E. G., 249
 Peckham, G. W., 249
 pecten, 921
Pectinariophyes stalii (Spanberg), 468
 pectinase, 53
 pectinifer, of Lepidoptera, 837
Pectinivalva, 821, 841, 842
 Pectinivalvinae, **842**
Pectinophora, 869; *P. gossypiella* (Saunders),
 869; *P. scutigera* (Holdaway), 869
 pederin, 563
 Pedgley, D. E., 105, 106
 pedicel, of antenna, 7
Pedicia (Triclyphona), 741
 Pediciini, 741
 Pediculidae, 95, 227, 423, 426, 427, **428**
Pediculus, 428; *P. capititis* Degeer, 96, 113,
 227, 428; *P. humanus* Linnaeus, 113, 222,
 227, 423, 424, 425, 428
 Pedilidae, 565
Pedilophorus, 634; *P. gemmatus* Lea, 634, Pl.
 5
Pediobius, 969
Pedois, 864
 pedon, 552
 pedotheca, 730
 Peirates, 496
 Peiratinae, 495, **496**
Pelecanus conspicillatus (AVES), 424
 Pelecinidae, 930, 939, 949
 Pelecorhynchidae, 734, 752, **753**, 754
Pelecorhynchus, 753; *P. fulvus* Ricardo, 754;
P. fusconiger (Walker), 3
 Pelecotominae, **664**
Pelomyia, 766
Pelopidas tyelli (Rothschild), 895
 Peloriidiidae, 25, 150, 168, 169, 171, 182, 429,
 430, 433, 435, 439, 442, 443, **479-80**
 Peloriidoidea, 443, 445, 446, **479-80**
 Peloriidiomorpha, *see* Coleorrhyncha
 Peloriidoptera, *see* Coleorrhyncha
Peloriidium hammoniorum Breddin, 480
 Pelsaert, F., 225
 Peltidae, *see* Trogossitidae
Peltocopta crassiventris (Bergroth), Pl. 3
Peltonyxa, 566
 Peltoperlidae, 314
Peltosyne, 178; *P. triassica* Ponomarenko, 617
 Pemphiginae, 170, 441, 453, 454, 455
Pemphigus bursarius (Linnaeus), 454, 455
 Pemphredoninae, 442, 940, **990**, **991**, 992
Penalva, 375
Penaphlebia, 293
 Pendergrast, J. G., 435, 497
 Perner, P., 104
 Penetini, 667
Penicillaria jocosatrix Guenée, 911, 912
 penis, 20; of Odonata, 299
Pennisetia igniflua (Lucas), 877
 Penny, D., 120
 Penridge, L. K., 293
 Pentacentrinae, 379, **386**
Pentacentrus, 386

- Pentacladus*, 419; *P. eucalypti* Enderlein, 413, 414
Pentacora, 485
 Pentagoniini, 613
Pentalonia nigronervosa Coquerel, 455
Pentathemis, 309; *P. membranulata* Karsch, 304
 Pentatomidae, 229, 232-3, 430-44 *passim*, 496, 504, 505, 507, **508-9**, 689-94 *passim*, 954, 968, Pl. 3
 Pentatominae, 496, **508-9**
 Pentatomioidea, 57, 430, 435, 440-7 *passim*, **504-9**
 Pentatomomorpha, 63, 171, 432, 435, 439-45 *passim*, 480, 481, 482, 488, **496-509**
Penthea, 674; *P. pardalis* (Newman), Pl. 4
 Penthiimiinae, **471-2**
 Peoriinae, **887**
 Pepsinae, **975**, 976, 977
 Pepsini, 975
 peptides, 50, 88, 229, 249-50
Peradenia, 952; *P. clavipes* Naumann and Masner, 951
 Peradeniidae, 930, 949, **950-2**
 Percy-Cunningham, J. E., 821
Peregrinus maidis (Ashmead), 476
Perga, 79, 80, 917-26 *passim*, 935, 939; *P. affinis* Kirby, 23, 933
Pergaphaga, 945
 Pergidae, 79, 80, 88, 101, 556, 917-33 *passim*, **934-5**, 939, 945, 950, 961
 Perginae, 926, 933, 934, **935**, 939
Pergula, 935
 Pergulinae, **935**
Pericapritermes, 346
 Péricart, J., 493
Periclystus, 541
Pericoma, 747
 Pericopinae, 909
 Perigonini, 612
 Perilampidae, 524, 732, 925, 930, 957, 959, **965**, 966
 Perilampinae, **965**, 966
Perilampus, 965, 966
Perileptus, 612; *P. constricticeps* (Sloane), 614
 Perilestidae, 304
Perilitus, 948; *P. morabinarum* Blackith, 388
 Perimylopidae, 565, 665
Periophthalmus (OSTEICHTHYES), 743
Periphyllus, 454; *P. californiensis* (Shinji), 454
Periplaneta, 44, 47, 327; *P. americana* (Linnaeus), 58, 230, 324, 325; *P. australis* (Fabricius), 325; *P. brunnea* Burmeister, 321, 325, 327; *P. fuliginosa* (Serville), 325
 Peripsocidae, 414, 416, 418, **419**
Periplyctus, 658
Peripyra sanguinipuncta (Guenée), 90
 Periscelididae, 734, 766, 767, 776, **777**
Periscelis, 767, 776, 777
 Perisphaeriinae, **329**
Perisphaerus, 324, 329
Perissomma, 719, 747; *P. bellissima* Colless, 747; *P. fusca* Colless, 739, 747, 748
 Perissomatidae, 730, 731, 734, 736, 739, **747**, 748
Peritormenta, 863, 864, 867; *P. circulatella* (Walker), 864
 Peritrichidae (PROTOZOA), 284
 peritrophic membrane, 58
 Perkins, F. A., 199, 212
 Perkins, P. D., 619
 Perkins, R. C. L., 685, 695
Perkinsiella saccharicida Kirkaldy, 91, 442, 475, 476, 493, 970
 Perlariopseidae, 163
 Perlidae, 314
 Perlodidae, 314
 Perlipseidae, 163
Permaleurodes, 170
 Permian Period, 141, 142, 144; in Australia, 178, 193-4
Permithone belmontensis Rick, 173
 Permithonidae, 175
 Permoberothidae, 168, 178
 Permochoristidae, 174
 Permocupedidae, 176
Permothymen schucherti Tillyard, 157
 Permomeropidae, 172, 174
 Permopanorpidae, 172
 Permophilidae, 166
 Permopsocina, 168
 Permopsychopidae, 175
Permpsylla grandis Carpenter, 169
 Permoraphidiidae, 164
 Permosialidae, 172
 Permosynidae, 176
Permotanyderus, 174; *P. ableptus* Riek
 Permothemistida, 142, 143, 149, 156, **159**
 Permothemistidae, 159
Permotipula patricia Tillyard, 173, 174
 Permotrichoptera, 174
Pernathia, 900; *P. pusilla* (Donovan), 900
 Peromyscus (MAMMALIA), 244
 Perreyiinae, 934
 Perry, D. H., 330, 340, 341, 345
 Perry, D. R., 111
Persectania, 828, 909, 914; *P. ewingii* (Westwood), 108, 829, 911, 948
Persoonia (BOT.), 844, 904, 994
 Persson, B., 105
Perthida, 844, 845; *P. glyphopa* Common, 78, 80
 Pescott, R. T. M., 205
 Pesson, P., 429, 448, 464
 pest insects, *see* agricultural; animals; blood-feeding; forestry; horticulture; mushroom cultures; pastures; sewage-treatment plants; stored products; sugar cane
 PESTKEY, 123
Petalura, 309; *P. hesperia* Watson, 301; *P. ingentissima* Tillyard, 309
 Petaluridae, 162, 298, 301, 302, 304, 308, **309**
Petasida, 389; *P. ephippigera* White, 202
 Petasidini, 389
 Petauridae (MAMMALIA), 88, 714
 Petauristidae, *see* Trichoceridae
 Peters, G. B., 389
 Peters, W. L., 279, 284, 292, 293
 Peterson, B. V., 174
 Peterson, M., 632
 petiole, 923, 980
 Petitpierre, E., 556
Petrobius, 130, 273; *P. maritimus* (Leach), 273
 Petrochoristidae, 172
Petrogale (MAMMALIA), 423
 Petrothrincidae, 795
Petyllis deprivata (Walker), 468
Pexicopia, 869; *P. nephelombra* (Meyrick), 869
 Pexicopiinae, 868
 Peyerimhoff, P. de, 565
 Pfau, H. K., 130, 131, 132
Phaconeura, 476; *P. caesa* Fennah, 476; *P. froggatti* Kirkaldy, 476, 477; *P. pluto* Fennah, 476
 Phacopterionidae, 443, 448, **449**
Phaenacantha australiae Kirkaldy, 498, 499
Phaennis, 665
Phaenoglyphis, 956
Phaenognatha, 628, 629
Phaeochrous, 627; *P. emarginatus* (Laporte), 626
Phaeostigma robusta Aspöck and Aspöck, 523
 Phalacridae, 565, 578, 580, 584, 586, 588, 591, 598, 603, 652, **653**
Phalacrinus, 580, 653; *P. rotundus* Blackburn, 652
Phalacrognathus, 626; *P. muelleri* Macleay, 626, Pl. 4
Phalacrus, 653; *P. uniformis* (Blackburn), 653
Phalaenoides, 913; *P. glycinae* Lewin, 509, 914
 Phalangeridae (Phalangerioidea) (MAMMALIA), 88, 442, 714
 Phalangopsinae, 379, **386**
 Phaleriini, 667
Phalidura, 682
 phallomere, 21-2
 Phallopiratinae, 481
 phallotreme, 22
 phallus, 20, 552
 Phaloniidae, *see* Tortricidae
Phanacis hypochoeridis (Kieffer), 955, 956
Phanagenia, 976
Phanerochaetum, 779
Phaneroptera gracilis Burmeister, 372
 Phaneropterinae, 372, 373, 379, 383, **384**, 954
Phanerotoma, 949
Phanerotomella, 949
Phanuromyia, 954
Phaolus metallicus (Newman), 673
 Phaoniinae, **780**
 Phaos, 909-10
 pharate stage, 65, 152
Pharochilus, 627
 pharyngeal plates, 730
 pharyngeal pump, 707, 728
 pharyngeal skeleton, 729
 pharynx, 56
 phase polymorphism, 100-1
 Phasganophorini, 961
 Phasiinae, **784**
 Phasmatidae, 80, 89, 92, 97, 243, 396, 400, **401-4**
 Phasmatinae, 396, **402**
 Phasmatodea, 24, 31, 77, 80, 99, 100, 101, 132, 133, **134**, 135, 142, 163, **164-5**, 178, 320, **394-404**, 405, 973, 974
 Phasmatoptera, *see* Phasmatodea
 Phasmida, *see* Phasmatodea
 Phasmodea, *see* Phasmatodea
Phasmodus ranatrififormis Westwood, 383
 Phasmodinae, 379, **382**, 383
 Phasmoptera, *see* Phasmatodea
Phaulacridium, 377, 391; *P. vittatum* (Sjöstedt), 246, 377, 378, 390, 391
Pheidole, 70, 690, 694, 966, 982-9 *passim*; *P. megacephala* (Fabricius), 987
Pheidologeton, 982
 Phellini, 758
Phellopsylla, 449
 Phellus, 757
 Phenacoleachiidae, 443
 phenetics, 115-16, 119
 Phengodidae, 60, 562, 564
 phenogram, 115
 phenotypic variation, 113
 phenylalanine, 34, 58
 pheromones, 7, 53, 54-5, 85, 102, 251, 337, 435, 541, 699, 829; aggregation, 55, 561; alarm, 55, 453, 925, 986; sex, 34, 47, 54-5, 85, 90, 256, 323, 334, 352, 371, 399, 529, 561, 679, 686, 689, 700, 821, 829, 873, 927, 977, 984; trail-marking, 55, 336, 925, 929, 986; *see also* glands; pheromone
Pheropsophus, 550; *P. jessoensis* Morawitz, 614; *P. verticalis* (Dejean), 229, 610, 614
 Phibalosomatinae, 400
Phibalothrips, 515
Philagra parva (Donovan), 468, 469
Philaninus, 787, 790; *P. plebeius* Walker, 74, 793, 799, 804, 807, 811
 Philanthinae, 990, 992, **993**
 Philesiaceae (BOT.), 677
Philobota, 862, 863; *P. productella* (Walker), 860, 861
Philobrunneus, 561
Philogalleria, 945
 Philomastiginae, 926, 930, 933, 934, **935**
Philomastix, 926, 933, 935
 Philomidinae, 963
Philonthus, 624
 Philopotamidae, 174, 790-9 *passim*, **801**, 802, 810
 Philopteridae, 94, 422, 423, 425, 426, **427**

- Philorheithridae, 787, 792, 795, 796, 797, 800, 808, **809-13**, 814, 815
 Philotarsidae, 416, 418, 419, **420**
 Philothermus, 656
 Philotrypes, 963, 964
 Philpott, A., 840
 Phlaeothripidae, 101, 511, 512, 513, 514, **515**
 Phlaeothripinae, **515**
 Phlebotomera, 777
 Phlebotominae, 746, **747**
 Phlebotomus, 227, 229, 728, 732, 739, 747
 Phloeidae, 444
 phloem-feeding, 438, 439, 441, 442, 448, 453, 464, 468, 474, 632, 669, 672, 683
 Phloeocharinae, **622**
 Phloeostichidae, 547, 563, 564, 565, 566, 571, 572, 573, 574, 588, 591, 605, 648, 649, **650-1**, 659
 Phloeostichus, 650
 Phloiophilidae, 564, 644, 645
 Phlyctinus callosus Boheman, 562, 682
 Phoenicococcidae, 443
 Pholodes sinistraria (Guenée), 889
 Phoracantha, 562, 563, 677, 948; *P. semipunctata* (Fabricius), 673
 phoresy, 98, 276-7, 339, 389, 424, 441, 457, 560, 664, 668, 688, 926, 954, 965; phoretic commensals, 284; phoretic copulation, 763, 927, 977
 Phoridae, 728, 734, 753, 762, **763**, 780, 987
 Phoroidea, 174, 734, **762-3**
 Phorticus, 491
 phosphate, 61
 phospholipases, 229
 Photinia (BOT.), 860
 photocytes, 60
 Photuris, 60
 phragma, 5, 10
 phragmotic heads (Isoptera), 333, 342, 344
 Phrenapates, 562
 Phrenapatinae, 665, **667**
 Phricanthes asperana Meyrick, 871, 873
 Phricanthini, 873
 Phrudinae, **945**
 Phryganeidae, 795
 Phryganopsychidae, 795
 Phryneidae, *see* Anisopodidae
 Phrynixini, 563, 682
 Phthiraptera, 27, 62, 68, 69, 93-8 *passim*, 113, 133, **135-6**, 142, 144, 227, 229, 412, **421-8**
 Phthiriinae, **759**
 Phthirolecorinae, 481
 Phthorimaea, 821, 862, 869; *P. operculella* (Zeller), 869, 949
 Phycitinae, 210, **887**
 Phycomorpha, 880, 881; *P. prasinochroa* (Meyrick), 876, 880
 Phycosecidae, 563, 564, 581, 597, 646, **647**
 Phycosecis, 647; *P. ammophila* Lea, 647; *P. hilli* Lea, 647; *P. limbata* (Fabricius), 647; *P. litoralis* Pascoe, 646, 647
 Phygadeuontinae, 944, **945**
 Phylacteophaga, 926, 935, 945; *P. froggatti* Riek, 933
 Phylacteophaginae, 926, 930, 933, **935**
 Phylinae, 441, 492, **493**
 Phylini, 493
 phylistics, 118
 Phyllanthus (BOT.), 456, 854
 Phyllelytron petalon Kukulová, 166
 Phylliidae, 164, 396, **400-1**
 Phylliinae, **400-1**
 Phyllium, 398, 400, 401; *P. siccifolium* (Linnaeus), 401
 Phyllocerus, 637
 Phyllocharis, 678
 Phyllocnistinae, **854**, 948
 Phyllocnistis, 850, 854; *P. citrella* Stainton, 854; *P. diaugella* Meyrick, 854
 Phyllodes imperialis Druce, 912
 Phyllomyzidae, *see* Milichiidae
 Phyllonorycter, 854; *P. aglaozona* (Meyrick), 854; *P. messaniella* (Zeller), 854, 856
 Phyllopetalia, 309
 Phyllophorinae, 379, **382**
 Phyllostocus, 630, 771
 Phylloxera, 456
 Phylloxeridae, 170, 435, 443, 453, 455, **456-7**
 Phylloxerina salicis (Lichtenstein), 457
 Phylloblatta, 165, 166
 phylogenetics, 109, 114-21, 187; phylogenetic systematics, *see* cladistics
 phylogeny, of hexapods, 125
 phylogram, 119
 Phymateus, 163
 Physiphora aenea (Fabricius), 770
 Physocephala, 768
 Physocrotaphini, 613
 Physoderinae, 495, **496**
 physogastry, 332, 339, 614, 656
 Physopelta, 503; *P. australis* Blöte, 503; *P. gutta* (Burmeister), 503, Pl. 3
 Physopleurella, 489
 Phytalmia mouldsi McAlpine and Schneider, 771
 Phytophaga, 565, 672
 phytophagy, 57, 76-81; in Hymenoptera, 928-38 *passim*, 954, 956, 961-2, 963, 965, 967, 968, 969
 phytoelmata, 777, *see also* plant-axil-breeding insects; tree holes
 Piagetella, 424; *P. australis* (Bedford), 424
 Picchi, V. D., 276
 Picea (BOT.), 456
 Pictaca, 542
 pie-dish beetles, *see* Helcini
 Piek, T., 925, 989
 Pieridae, 40, 64, 107, 819, 829, 831, 832, 894, 895, **896-7**, 898
 Pierinae, 896, **897**
 Pieris, 64, 896; *P. rapae* (Linnaeus), 231, 897
 Piesma, 499
 Piesmatidae, 443, 447, 498, **499**
 Piesmatoidea, 443, 445, 447, **499**
 Piestinae, 622, **623**
 Piezodorus hybneri (Gmelin), 509
 pigment, 38-9, 40, 299; bile pigment, 40; cells (of eye), 47, 48; light-sensitive (visual), 48
 Pilacomonotus, 542
 Pilgrim, R. L. C., 139, 699, 700, 702
 pilifers, 817, 828
 Pilipalpidae, *see* Pythidae
 Pilipalpinae, 564, 571, 574, 606, 662, **669**
 Pilophorini, 492, 493
 Pilophorus, 493
 Pimeliinae, 563, **667**
 Pimeliini, 667
 Pimentel, R. A., 113
 Pimplinae, **944**
 Pimplini, 944
 Pinaceae (BOT.), 456
 pinaculum, of Lepidoptera larvae, 827
 Pinara, 900; *P. divisa* (Walker), 900, 901
 Pinder, L. C. V., 746
 pinene: α -, 55; β -, 55
 Pineus, 456; *P. pini* (Macquart), 455, 456
 Pingasa, 890; *P. chlora* (Stoll), 890
 pinhole borers, *see* Platypodinae
 pinhole damage, *see* Lymexyliidae; Platypodiinae
 Pinnipedia (MAMMALIA), 68
 Pinochius, 481
 Pinophilini, 622
 Pinophilus, 624
 Pinus (BOT.), 340, 456, 644, 673, 683, 747; *P. radiata*, 233-4, 456, 562, 848, 889, 900, 902, 929, 932
 Piophilinae: *P. australis* (Harrison), 770; *P. casei* (Linnaeus), 770
 Piophilidae, 734, 767, **770**, 774
 Piophilosoma, 770; *P. antipodum* (Osten-Sacken), 774
 Pipioporos (FUNGI), 660, 665
 Pipunculidae, 441, 719, 734, 752, **763**, 764, 967
 Pipunculus, 763
 Pireninae, **965**
 Pisauridae (ARANEAE), 975
 Pison, 961, 991
 Pitkin, L. M., 382
 Pittosporum (BOT.), 513
 Placonotus, 651
 Plagiognathus, 493
 Plagirolepis, 985
 Plagiotelum, 613
 plague (disease), 708, 709; bubonic, 227, 709; sylvatic, 709
 plague grasshopper, *see* Austroicetes cruciata
 plague locust, *see* Chortoicetes terminifera
 plague thrips, *see* Thrips imaginis
 plagues of insects, 391, 399-400, 449, 782
 planaria (TRICLADIDA), 97, 750
 Planarivora, 751
 Planchonella australis (BOT.), 878
 planidium, 98, 729, 925, 943, 945, 957, 965-6; *see also* triungulin
 Planipennia, *see* Neuroptera
 Planococcus: *P. citri* (Risso), 461; *P. minor* (Maskell), 461
 plant-axil-breeding insects, 668, 744; *see also* phytoelmata
 planta, 11; of proleg, 825
 Plantaginaceae (BOT.), 84
 plantar lobes, *see* euplantulae
 planthoppers, *see* Fulgoroidea
 plants: relationships with insects, 76-88; defences against insects, 78-81, 85
 plasmotocytes, 61, 62
 Plasmodium (PROTOZOA): *P. falciparum*, 229; *P. vivax*, 229
 Plastanoxus, 973
 plasticisation of cuticle, 35, 37
 plastics, damage by termites, 340
 Plastoceridae, 117, 564
 plastron, 5, 41, 42, 63, 65, 73-4, 75, 434, 437, 545, 560, 608, 618, 619, 632, 634, 682, 729, 730, 834, 886
 Platarista macleayi (W. J. Macleay), 911
 Plataspidiidae, 430, 444, 506, **507**
 plate tectonics, 190-1
 Platius, 651; *P. colonarius* (Olliff), 652; *P. moerosus* (Pascoe), 659
 Platnick, N. I., 110, 113, 116, 119, 127, 182, 188, 190
 Platybrachyini, 479
 Platybrachys, 479, 690, 879; *P. decemmacula* (Walker), 690; *P. leucostigma* (Walker), Pl. 3; *P. maculipennis* (Le Guillou), 478
 Platychoristidae, *see* Protometopidae
 Platychoropsis, 649
 Platycnemididae, 304
 Platycotylus, 575
 Platycraninae, **402-3**
 Platygaster, 952
 Platygasteridae, 921, 925, 926, 930, **952-3**
 Platygasterinae, **952**, 953
 Platygasteroidea, 97, 831, 921, 923, 930, 935, 937, **952-4**
 Platygastoides, 953
 Platyhelminthes, 987
 Platylobium (BOT.), 456
 Platynopus, 509
 Platyomopsis, 674
 Platypalpus, 760, 761
 Platypeza, 762
 Platypezidae, 734, 753, **762**, 948
 Platypodidae, *see* Curculionidae
 Platypodinae, 59, 101, 547, 560, 562, 577, 585, 589, 590, 603, 650, 656, 664, 678, 681, 682, **683**, 965
 Platypitia, 886; *P. omissalis* Fletcher, 885
 Platypitilinae, **885**
 Platypus, 562; *P. subgranosus* Schedl, 562, 681, 683
 Platysalpingus, 671
 Platyscelio, 954
 Platyscelionini, 954
 Platysoma, 618
 Platystictidae, 304

- Platystomatidae, 734, 764, 765, 769, **770**, 771, Pl. 5
Platyura, see *Orfelia*
Platzostertia, 324, 327; *P. (Melanozosteria)*, 694; *P. (M.) castanea* Brunner, 694
P. melanaria (Erichson), 322; *P. nitidella* (Shaw), 326, 327
Plea, 44, 488, 489
Plecia, 748, Pl. 6; *P. dimidiata* Macquart, 748
Plecoptera, 19, 21, 22, 26, 30, 39, 64, 72, 73, 75, 77, 131, **132-3**, 142, 150, 156, **162-3**, 178, 179, 182, 183, 195, 209, 284, **311-19**, 320, 794
plecopteroid orders, 143, 150, 151, 153, 156, 162-3
Plectrocnemia, 811; *P. australica* Banks, 789, 799, 804
Plectrotarsidae, 787, 788, 792-9 *passim*, **805**, 806, 812, 815
Plectrotarsus gravenhorstii Kolenati, 788, 799, 806, 812, 815
plectrum, 49, 435, 626, 627
Pleidae, 443, **488**, 489
Pleistocene Epoch, 141, 142; in Australia, 195
Pleistodomes, 920, 963, 964
Pleocomidae, 564
pleometrosis, 983
Pleosporales (FUNGI), 669
plesiomorphy, 116
Plethogenesia, 284
pleuritocava, of Neuroptera, 529
pleuron, 5; pleural suture, 10; pleural wing process, 10
pleurostict Scarabaeidae, 560, 628
pleurostoma, 7
pleurotergite, 721
Pleurotus (FUNGI), 665
pleuston, 72
plica oralis, 253
Plinthisini, 502
Plinthisus, 500, 502
Pliocene Epoch, 141, 142; in Australia, 194
Plochocorella elongata Poppius, 490
Plodia interpunctella (Hübner), 887
Ploiaria, 496; *P. regina* Wygodzinsky, 496
Plokiophilidae, 408, 440, 443
plum trees, pests of, 934
Plumariidae, 931, 970
Plumbago (BOT.), 858
plume moths, see *Pterophoridae*
Plusiinae, 912, **914**
Plutella, 858; *P. xylostella* (Linnaeus), 857
Plutellidae, 831, 832, 855, 856, **857**, 858
Pneumoridae, 378
Pneumoroidea, 378
Poaceae (BOT.), 84, 463, 682, 857, 897, 914, 965
Pocadius, 649
poculum, 395
pod-sucking bug, see *Riptortus serripes*
Podacanthinae, see *Tropidoderinae*
Podacanthus, 401; *P. typhon* Gray, 397; *P. wilkinsoni* Macleay, 395-401 *passim*
Podagrion, 352, 962
Podagrionini, 962
Podagrion, 991
Podalonia, 991; *P. tydei* (Le Guillou), 991
Podocarpaceae (BOT.), 194
Podocarpus (BOT.), 442, 454, 456
Podomyrma, 985, 989
Podonominae, **746**
Podopteryx selysi (Förster), 303, 307
Podothrips, 515
Poduridae, 258
Poduroidea, 252, 258, **260-1**
Poecilocryptus, 945
Poecilometis, 508, 509; *P. armatus* (Fabricius), Pl. 3; *P. longicornis* (Dallas), 436; *P. patruelis ynigrum* (Bergroth), 434; *P. strigatus* (Westwood), 689, 690, 694
Pogonini, 612
Pogonoglossus, 613
Pogonoscopus, 473; *P. lenis* (Jacobi), 472
657, 658, 660, 662, 665, 850
Polyrhachis, 980, 985, 986, 989
polysaccharide, 34
Polyscias murrayi (BOT.), 856
Polysphinctini, 944
Polystoechotidae, 530, 531
Polythoridae, 304
Polytocus, 768
Polytoxus, 496
Polyura sempronius (Fabricius), 894, 897-8
Polyzosteria, 323, 325, 327; *P. limbata* Burmeister, 321, 322, 323, 324, 327; *P. viridissima* Shelford, 322, 323, Pl. 2
Polyzosteriinae, 324, **327**
Pompanotus, 504
Pompilidae, 92, 99, 175, 758, 921, 926-31 *passim*, 936, **974-6**, 977, Pl. 5, Pl. 6
Pompilinae, **975-6**, 977
Pompilus, 977; *P. cinereus* (Fabricius), 975
Poneridia australis (Boheman), 674
Ponerinae, 185, 186, 481, 982, 983, 984, 986, **987**, 988, 989
Ponomarenko, A. G., 143, 144, 164, 172-8 *passim*, 544, 548, 549, 607, 608, 609, 617
Pont, A. C., 96, 780
Pontomyia, 75, 76, 730, 744
Poonawalla, Z. T., 131
Pope, P., 322, 325
Pope, R. D., 624, 657, 658
Popham, E. J., 134, 364, 365
poplar, 455
Popov, A. V., 88
Popov, Yu. A., 171, 444, 494
Populus (BOT.), 676
pore canals, 33
Porela, 902
Porisminae, **536**
Porismus strigatus (Burmeister), 526, 529, 536
Poritinae, 899
Poroblattinidae, 166
Porotermes, 330, 340, 341, 344; *P. adamsoni* (Froggatt), 334, 338, 343, 344
Porotermitinae, **344**
Porphyrodema, 493
Porribius, 714, 716; *P. caminae* (Rothschild), 715
Porter, D. L., 728
Portulaca (BOT.), 934
post-sternellum, 10
postabdomen, 17
postantennal organ, 252
postembryonic development, 65-7
postgonites, of Diptera, 728
Postle, A. C., 489
postmentum, 8
postnotum, 9
postoccipital suture, 6
postpetiole, 923, 980
posttarsus, 11
Potamantidae, 285
Potamocorinae, 488
Potamophilinus, 634
potassium, 43, 57, 59, 60, 61
potato, pests of, 325, 455, 493, 509, 658, 869
Potergus, 637
poultry, pests of, 325, 424, 425, 427, 716
Povilla corporaali (Lestage), 285
powderpost beetles, see *Lycitinae*
Powell, J. A., 867, 873
Prado, Diego de, 225
praecinctorium, of Lepidoptera, 887
Praelateridae, 178
Praestochrysis, 973; *P. lusca* (Fabricius), 973
Praetaxila segecia (Hewitson), 899
Praxibulus, 377
Praydinae, **856**
praying mantids, see *Mantodea*
Prays, 851, 856, 858; *P. nephelomima* Meyrick, 856; *P. parilis* Turner, 856
preabdomen, 17
Precambrian Era, 141, 143
precosta, of wing, 15

- precoxal bridge, 721
predacious diving beetles, *see* Dytiscidae
predacious hexapods, 57, 77, 90-3; Coleoptera, 90, 314, 441, 560, 609, 611-14, 615-24 *passim*, 636-7, 638, 640, 644, 645, 646, 647, 650, 651, 656, 658, 664, 668, 669; Collembola, 257; Dermaptera, 90, 363; Diplura, 270; Diptera, 90-1, 441, 719-20, 731, 732-3, 743, 744, 746, 749, 751, 756, 757-8, 759-61, 763, 768, 769, 770, 777, 778, 780; Ephemeroptera, 281, 284, 289; Grylloblattodea, 357-9; Hemiptera, 91, 430, 439, 441, 442, 454, 475, 480-93, 494-6, 499, 502, 509; Hymenoptera, 92, 339, 442, 562, 925, 926, 928-9, 936, 942, 963, 965, 971, 974, 975-6, 979-93; Lepidoptera, 90, 442, 829, 860, 864, 868, 879, 880, 886, 887, 899, 912; Mantodea, 90, 99, 348-56; Mecoptera, 90, 697, 700, 701, 702; Megaloptera, 90, 518; Neuroptera, 91-2, 441, 525-42; Odonata, 90, 91, 294-310, 314, 339; Orthoptera, 90, 376, 380, 381, 382, 384, 386; Phthiraptera, 424, 425; Plecoptera, 314; Raphidioptera, 523; Thysanoptera, 90, 513, 515; Trichoptera, 91, 314, 792, 793, 794, 798, 803, 813, 816
predation on insects, *see* names of predators
prefemur, 11, 145
pregenital segments, groundplan, 150
pregomphi, 649
pregonites, of Diptera, 728
prelarva, of Protura, 266, 267
premandibles, 729
prementum, 8
preoral cavity, 7, 56
prepectus, 10, 918, 935
prepupa, 441, 511, 562, 668, 700, 794
prescutum, 9
preservation of insects, 111
presoldiers, of Isoptera, 333, 337
presternum, 10
prestigma, 921
prestomal teeth, 720
Prestwichia, 969
pretarsal bladder, 510
pretarsus, 11, 145
pretentorinae, 7
pretentorium, 6
Priamima, 658, 660
Priasilpha obscura Broun, 650
Priasilphinae, 563, 605, **650**, 659
Priastichus, 557, 572; *P. tasmanicus* Crowson, 566, 648, 650, 659
prickly pear, *see* *Opuntia*
Prickly Pear Board, *see* Commonwealth Government of Australia
Primates (MAMMALIA), 428
Primeuchroeus, 972, 973
principal component analysis, 116
principal coordinates analysis, 116
Princis, K., 72, 320, 323, 325, 329
Pringle, J. W. S., 465
Prinsloo, G. L., 957
Priochirus, 563; *P. miles* Bernhauer, 623
Priocnemis, 975
Prioninae, 584, 586, 595, 672, **673**, Pl. 4
Prionoglarididae, 416
Prionomyrmex, 987
Prionyx, 991
Priophorus morio (Lepelletier), 934
Pristaulacus, 941, 942
Pristhesancus, 496; *P. plagipennis* Walker, 23, 438, 494, 496
Pristocerinae, **973**
Pristomerus, 945
Pristomyrmex wilsoni Taylor, 986
Pritchard, G., 358
Pritsch, M., 136
Pritykina, L. N., 161, 162
privet, *see* *Ligustrum*
Proagomyia, 760
Probaryconus, 953, 954
Probaticeps, 497
Proberothidae, 175
proboscis, 9, 35, 421, 719, 817-18, 828-9, 917
Procampodeidae, 270, 271
Procecidochares utilis Stone, 771
procephalon, 4
Proceropodidae, 170
processionary caterpillars, *see* Thaumetopoeidae
processus terminalis, of antenna, 444
Procometis, 863; *P. bisulcata* Meyrick, 863
Proconura, 961
Procoptodon (MAMMALIA), 79
Procordulia, 309; *P. jacksoniensis* (Rambur), 302, 309
Procridinae, 877
procrypsis, 92, 99, 397, 400, 402, 440, 830
Procryptotermes, 344; *P. australiensis* Gay, 344
proctiger, 434, 551, 724
Proctor, M. C. F., 85
Proctotrupidae, 175, 917, 918, 925, 930, 939, 948, 949, 951, **952**
Proctotrupoidea, 97, 175, 352, 923, 925, 930, 935, 936, 937, **949-52**
procuticle, 33, 34, 36, 37, 38
Prodoxidae, 832, 833, 842
Prognathoides mjobergi (Bernhauer), 623
prognathy, 7
Progoneata, 127
Progonia patronalis (Walker), 910, 911
Progonocimicidae, 171, 429
prohaemocytes, 61
Prohagla, 164
Prohemerobiidae, 175
Proisotoma brisbanensis Womersley, 261
Projapygidae, 269, 270, **271**
Prokopy, R. J., 241
prolarva, in Odonata, 300
Prolasius, 983, 985, 989
prolegs, 518, 699, 745, 792, 825, 931
Promargarodes australis Jakubski, 459
Promecotheca, 677
Promethis, 563; *P. nigra* Blessig, 662, 666
Promirara, 160
Proochlonyx, 115, 116, 742, 743
pronymph, 350, 372, 465
Propalticidae, 565, 576, **651-3**
Propalticus, 653; *P. simplex* Crowson and Sen Gupta, 652, 653
Proparagryllacrididae, 164
Prophalangopsidae, *see* Haglidae
Prophanes mastersi Pascoe, 667, Pl. 4
prophenoloxidase, 62
Propatygaster, 952
propodeum, 918
proprioception, 44-5, 46
Propsoeus, 419
propupa, of Thysanoptera, 511, 512
propygidium, 550
Proreus, 367
Prorhinotermes, 345; *P. inopinatus* Silvestri, 345
Prorhinotermitinae, **345**
Prorhynchophila, 174
Prorhynchophilidae, 174
Prosbolidae, 170
Prosboloidea, 169, 170
Proscolia, 979
Proscoliinae, 979
Proscopiidae, 378, 387, 388
Proselena annosana Meyrick, 873
Prospantrum flavifrons (Tonnoir and Malloch), 733
Prosopistoma, 281, 282, 284, 288, 292, 293
Prosopistomatidae, 285, 286, 288, 292, **293**
Prosopocollis, 626
Prospheres, 632
Prostanthera (BOT.), 841
Prostemma, 491
Prostemmatinae, 440, **491**
prostheca, 8, 269, 545, 558
Prostigmata (ACARINA), 257
Prostomidae, 552, 565, 581, 588, 602, 660, **667-8**
Prostominia, 577, 671
Prostominiinae, 599, 606, **669-71**
Prostomis, 660, 667, 668; *P. atkinsonsi* Waterhouse, 667
Prosypniestinae, **497**
Prosypniestus, 497
protandrium, 726
protandrogram, 727
Protanisoptera, 161
Protea (BOT.), 844
Proteaceae (BOT.), 194, 449, 450, 452, 649, 844, 854, 863, 879, 890, 903, 906, 994
protease, 53, 57
Proteininae, 597, **622**
protelean parasitism, 928
Protelencholax, 695
Protelytroptera, 142, 144, **166-7**, 178
Protentomidae, 266, **267-8**
Protentomobrya, 154
Protentomobryidae, 258
Protentomon, 268
Protereisma, 160
Protereismatidae, 160
prothoracicotropic hormone, 38, 50
prothorax, 9
proto-wings, 12, 15, 144, 146, 156
Protoblattina bouvieri Meunière, 168
Protoblattodea, 166, 357
Protocanthus halei Gross, 499
Protocapritermes, 346; *P. krisiformis* (Froggatt), 336, 346
protocerephalon, 4
protocerebrum, 42
Protochauliodes, 519, 520; *P. biconicus* Kimmins, 520; *P. kirramae* Theischinger, 520
Protocoleidae, 166
Protocoleoptera, **176-7**
Protocucujidae, 547, 564, 572, 605, 648, **649**
Protodiplatyidae, 167
Protodiptera, 174
Protodonata, 142, 143, 144, 148, 150, 151, **160-2**, 178
Protographium, 895; *P. leosthenes* (Double-day), 895
Prototechia, 868, 869; *P. aversella* (Walker), 869; *P. deltoides* (Lower), 866, 869
Protomecoptera, 172, 701
Protomeropidae, 172, 174
Protomicroplitis, 949
Protomiltogramma, 782
Protoneuridae, 297, 300, 304, 305, 306, **307**, Pl. 1
Protoperlaria, **162**, 167, 357
Protoplectrini, 541
Protoplectron, 541
Protosyllidiidae, 169, 170
Protorthoptera, 163
Prototheoridae, 832, 833, 840
Protostestus, 656; *P. australicus* Sen Gupta and Crowson, 656
Protozoa, 57, 58, 59, 98, 102, 229, 257, 273, 276, 284, 314, 324, 329, 336, 337, 364, 377, 408, 415, 709, 732, 929, 987
Protozygoptera, 161
Protura, 26, 125, 126, 127, 128, **129**, 142, 143, 150, 153, 207, 252, **265-8**, 269
Protorya, 449-50; *P. sterculiae* (Froggatt), 450
proventriculus, 56
Provine, R. R., 324
provisioning, 92, 103, 979, 991: mass provisioners, 929, 980, 990, 993; progressive provisioners, 562, 929, 979, 980, 990, 993, 1000
proxalare (proxalaria), 13, 148
pruinescence, 299
Psalidothrips, 515
Psallopininae, **492**
Psallups, 492
Psallus, 493
Psaltoda, 467

- Psammisotoma*, 261
Psammoecus, 651
 psammophore, 980
Pspectra diptera (Burmeister), 538
Pseudnura pedestris Erichson, 389
 Pseudurini, 389
 Pselaphidae, 178, 339, 544, 547, 560, 561, 564, 583, 589, 590, 591, 621, **624**
 Pselaphinae, **624**
Psenulus, 991
 Psephenidae, 74, 117, 120, 182, 557, 558, 559, 560, 564, 569, 596, 632, 633, **635**, 639
 Psephenoidea, 551, 632
Psepholax, 682
Psephotus (AVES), 339
Pseudabispa ephippioides van der Vecht, Pl. 6
Pseudachorudina, 254, 260
 Pseudachorutinae, 258, **260**
Pseudaegeria, 860; *P. phlogina* Turner, 860
Pseudagrion, 111, 307; *P. aureofrons* Tillyard, 307, Pl. 1; *P. cingillum* (Brauer), 307; *P. ignifer* Tillyard, 306, 307; *P. microcephalum* (Rambur), 307
 Pseudagrioninae, **306-7**
Pseudalyssiinia, 751
Pseudananca ruficollis Blackburn, 671
Pseudanapaea, 878, 879
Pseudanaphothrips, 515
Pseudantechinus macdonnellensis (MAMMALIA), 339
Pseudanurida, 260; *P. glauerti* Womersley, 258
 Pseudarbelidae, 832
Pseudeba, 561
 pseudempodium, of Lepidoptera, 819
Pseudendestes: P. australis Lawrence, 661, 664; *P. robertsi* Lawrence, 664
Pseudeucinetus, 563, 580, 634
Pseudidarnes, 963
Pseudisobranchium, 973
Pseudobargylia, 496
Pseudobothrideres, 656
 Pseudocaeciliidae, 416, 418, **419**
Pseudocalolampra, 329
 pseudocelli, 252
Pseudocloeon, 287, 288
 Pseudococcidae, 441, 442, 443, 458, **459-61**, 463, 492, 563, 658, 953, 967, 968, 985
Pseudococcus: P. affinis (Maskell), 461; *P. calceolariae* (Maskell), 458, 460; *P. longispinus* (Targioni-Tozzetti), 461, 463
 pseudocopulation, 85, 926, 944, 978, 987
Pseudocordulia, 310
 pseudoculus, 265
 pseudofrenulum, 821
 pseudogula, 718
Pseudohydrobius, 618
Pseudolasius, 985
 pseudolegs, of larva, 841
Pseudoleria, 772
 Pseudolestidae, 304
Pseudoleucopsis, 769; *P. fasciventris* Malloch, 773
Pseudoloxops, 493
Pseudolycus, 668
Pseudomantis albobimbriata (Stål), 351
Pseudomicrocara, 566, 624
 pseudomola, 558
Pseudomorpha, 614
 Pseudomorphinae, 561, 562, 592, 610, 611, **614**
 Pseudomyrmecinae, 983, 984, **987**, 988, 989
Pseudomyrmex, 84
Pseudomys higginsi (MAMMALIA), 428
Pseudonemadus australis (Erichson), 620
 pseudonychia, 253
Pseudopachybrachius guttus (Dallas), 501
Pseudopantilius, 492, 493
Pseudoparonella, 262; *P. queenstandica* (Schött), 262
Pseudoperga, 933; *P. lewisii* (Westwood), 101
Pseudophacopteron, 449
 Pseudophloeinae, **503**
Pseudophryne corroboree (AMPHIBIA), 986
 Pseudophyllinae, 379, **382**
Pseudopolycentropus, 174
Pseudopomyza, 771
 Pseudopomyzidae, 734, 767, **771**
 Pseudopontinae, 896
 pseudopulvillus, of Hemiptera, 432
Pseudoregma panicola (Takahashi), 454
Pseudorhinoessa, 779
 Pseudoscirtini, 386
 Pseudoscorpionida, 143, 257, 415
 pseudospermathecae, of Hemiptera, 435, 488
 Pseudostigmatidae, 304
Pseudotaenia, 632; *P. quadrisignata* (Saunders), Pl. 4
Pseudotetralobus, 637, 646
 pseudotracheae, 720
Pseudotrielis, 979
Pseudotsuga (BOT.), 456
Pseudoturneria, 991
 pseudovenation, 979
 pseudovirga, of Thysanoptera, 511
Pseudoxenos, 686-95 *passim*
 Psilanteridini, 954
 Psilidae, 734, 767, **770**, 774
Psilogramma, 905; *P. menephron* (Cramer), 903, 904
Psilommella, 950
 Psilopsocidae, 416, 418, **420**
Psilota, 763; *P. rubra* Klöcker, 763
Psix, 954
 Psocathropetae, 416
 Psocetae, 416
 Psocidae, 414, 416, 418, **420**
 psocids, *see* Psocoptera
 Psocina, 168
 Psocodea, 133, 135-6
 Psocomorpha, 416, **418-20**
 Psocoptera, 12, 14, 25, 26, 31, 54, 77, 132, 133, **135-6**, 142, **168-9**, 170, 178, 179, 182, 250, 410, **412-20**, 511, 970
 psocopteroïd orders, 510
Psophodes (AVES), 986
Psoquilla marginipunctata Hagen, 417
 Psoquillidae, 416, **417**
Psoralea (BOT.), 896
Psoropempula, 975
 Psoropempulini, 975
 Psychidae, 819, 820, 821, 825, 828, 829, 832, 845, 847, **848**, 849, 852, 854, 962
 Psychinae, **848**
Psychobiella, 534
Psychoda, 728, 747; *P. alternata* Say, 747
 Psychodidae, 41, 227, 721, 728-39 *passim*, 743, 746, **747**
 Psychodomorpha, 734, **747**
 Psychomyiidae, 795, 796, 797, 801, **803**
 Psychopsidae, 176, 526-34 *passim*, 538, **539**, 540
Psychopsis, 534, 539; *P. maculipennis* (Tillyard), 539; *P. mimica* Newman, 526, 539
 Psychroptilidae, 158
 Psydrini, 612
Psylla, 449
Psyllaephagus, 966, 968
 Psyllidae, 80, 82, 223-4, 231, 246, 432, 438, 441, 442, 443, 448, **449**, 451, 528, 530, 646, 769, 880, 962, 965, 968
 Psyllipsocidae, 168, 416, **417**
Psyllipsocus ramburii Selys, 417
Psyllobetina, 790
 Psylloborini, 658
 Psylloidea, 170, 429-45 *passim*, **448-50**, 452, 948, 956
Psyllopsis fraxinicola Förster, 449
 pteralia, *see* articular sclerites
Pteridium aquilinum (BOT.), 777
 Pteridophyta (BOT.), 77
 pteridosperms (BOT.), 143, 144, 194
 pterins, 40
Pterobosca, 746
Pterodontia, 755, 756
 Pterogeniidae, 545, 563, 565, 574, 604
Pterohelaeus, 562, 667
Pterolocera, 900, 901
 Pteromalidae, 92, 441, 442, 562, 919, 922, 930, 956, 957, 959, 962, **963-5**, 967
 Pteromalinae, 964, **965**
Pteromalus, 965
 Pteronarcyidae, 314
Pteronemobius, 386; *P. nundra* Otte and Alexander, 373
 Pterophoridae, 832, **883-5**, 886, 888
 Pterophorinae, **885**
 Pterophoroidea, 828, 832, 833, 846, **883-5**, 886
Pterophorus, 886, 888; *P. aptalis* (Walker), 885
 pteropleuron, 10
Pteroptrix, 968
Pteropyx, 563, 640; *P. cribellata* (Olivier), 640
Pteropus (MAMMALIA), 786
Pterorthochaetes: P. cribricollis Paulian, 627; *P. simplex* Gestro, 627
 Pterostichini, 610, 612, 613, 614
 pterostigma, 12
 pterothecae, 730
 pterothorax, 9
 Pterothysanidae, 832
 Pterygophorinae, 933, **935**
Pterygophorus, 932, 933
 Pterygota, 6, 8, 10, 13, 15, 17, 18, 19, 20, 125-9 *passim*, **130-40**, 142-55 *passim*, **156-78**, 167, 275
Pteryperga, 935
 Pteryperginae, **935**
 Pthiridae, 426, 427, **428**
Pthirus pubis (Linnaeus), 95, 96, 227, 428
 Ptiliidae, 337, 550, 559, 560, 562, 563, 564, 568, 601, 604, 608, 618, **619**
 ptilinum, 67, 689, 718, 731
Ptilocrembia, 409
Ptilocerus, 496
Ptilocnemus, 91, 496; *P. femoratus* Horváth, 91, Pl. 3
Ptilodactyla, 566, 635, 636
 Ptilodactylidae, 517, 554, 558, 559, 560, 564, 566, 569, 578, 595, 596, 631, 632, 633, **635-6**, 639
 Ptilodactylinae, 578, 595
Ptilogyra, 741; *P. ramicornis* (Walker), 741
Ptilomacra, 870; *P. senex* Walker, 829, 870
 Ptiloneuridae, 416
 Ptilophorinae, **664**
Ptilophorus, 664
 Ptinidae, *see* Anobiidae
 Ptininae, 561, 576, 593, 643, **644**
Ptinus: P. clavipes Panzer, 562; *P. clavipes* Panzer f. mobilis Moore, 562; *P. exulans* Erichson, 644; *P. fur* (Linnaeus), 562; *P. pusillus* Sturm, 562; *P. tectus* Boieldieu, 562, 644
Ptomaphila, 571, 621; *P. lacrymosa* (Schreibers), 23, 554, 620, 621; *P. perlata* Kraatz, 621
 Ptychopteridae, 733, 734, 736
 Ptychopteromorpha, 734
Ptysoptera, 844, 845
Puccinia chondrilla (FUNGI), 234-5
Puffinus tenuirostris (AVES), 422
Puknoblattina, 165
Pulex, 711; *P. irritans* Linnaeus, 222, 227, 708, 709, 710
 Pulicidae, 174, 706-11 *passim*, **714**
 Pulicoidea, 708, 709, **714**
 pulvillus, 11
Pulvinaria elongata Newstead, 464
 pumpkins, pests of, 508, 658, 678, 914
 pupa, 67, 152, 441, 511, 512, 528; adectitious, 67, 559, 687, 707, 730, 828, 925; coarctate, 730; dactylicous, 67, 516, 521, 528, 699, 828; exarate, 67, 516, 528, 559, 687, 699, 707, 730, 787, 828, 925; obtect, 67, 559, 730, 828, 925; respiration, 41
 pupal cell, 559, 630, 656, 700, 794, 800, 803,

- 904, 906, 912
puparium, 451, 452, 684, 687, 689, 730, 731, 761
pupiparous Diptera, 731
Putoniessa nigra (Walker), 432
Pycnarrhena (BOT.), 912
Pycnobracon, 948, Pl. 6
Pycnomerus, 662, 664
Pycnoscelinae, 325, **329**
Pycnoscelus: *P. indicus* (Fabricius), 324; *P. surinamensis* (Linnaeus), 324, 325
Pycnostigmatinae, 956
Pyemotes herfsi (ACARINA), 98
Pygidicranida, 365
Pygidicranidae, 167, 361-5 *passim*, **366**, 367
Pygidicraninae, **366**
Pygidicranoidea, 364, 365, **366**
pygidium, 361, 464, 550, 923, 987
Pygiopsylla, 713, 714; *P. hoplia* Jordan and Rothschild, 708, 713, 714; *P. phiola* Smit, 714
Pygiopsyllidae, 706-13 *passim*, **714-15**
Pygiopsyllinae, 709, **714**
Pygmephoridae (ACARINA), 98
pygmy grasshoppers, *see* Tetrigoidea
pygmy mole crickets, *see* *Tridactylus*
pygofer (pygophore), 434
Pygolampis, 496
Pygophora, 780
pygopod, 556, 559
Pygopodidae (REPTILIA), 339
pygostyles, *see* cerci
Pyke, G. H., 247
Pyrallidae, 88, 93, 94, 228, 232, 442, 461, 821, 823, 826, 830, 831, 832, 870, 884, **886-9**, 945, 961, 969, Pl. 7
Pyrallinae, **887**
Pyrallis farinalis Linnaeus, 887
Pyraloidea, 44, 821, 828, 832, 833, 846, 872, 885, **886-9**
Pyraustinae, **889**
Pyrenomycetes (FUNGI), 656, 664, 679
Pyrginae, **893**
Pyrgoides, 678
Pyrgomorphidae, 163, 378, 387, **388-9**, Pl. 2
Pyrgomorphinae, **389**
Pyrgotidae, 97, 562, 733, 734, 765, 769, **770-1**
Pyrochroidae, 561, 565, 586, 671
Pyroderes rileyi (Walsingham), 868
Pyrophanes, 640
Pyrrhocorax pyrrhocorax (AVES), 426
Pyrrhocoridae, 429, 442, 443, 499, 502, **503**, Pl. 3
Pyrrhopyginae, 893
pyrrolizidine alkaloid, 55
Pythidae, 552, 553, 557, 561, 564, 565, 566, 571, 574, 588, 606, 640, 662, **668-9**
Pythinae, 564, 574, 606, 669
Qin, T. K., 182
Quadraspidotus: *Q. lenticularis* (Lindinger), 464; *Q. ostreaeformis* (Curtis), 464; *Q. perniciosus* (Comstock), 457, 463, 464; *Q. pyri* (Lichtenstein), 464
Quadrastichodella, 969
quadritinae, 912
quandong, *see* *Santalum acuminatum*
Quaternary Period, 141, 142; in Australia, 194-5
Quedius, 624
queen: of Hymenoptera, 929, 980-9 *passim*, 993, 998, 1000; of Isoptera, 330, 334, 336, 337
Queensland Bureau of Sugar Experiment Stations, 208, 210
Queensland Department of Agriculture, 208, 212
Queensland Department of Lands, 211
Queensland Entomological Society, 208, 216
Queensland fruit fly, *see* *Dacus tryoni*
Queensland Government Entomologist, 207
Queensland Institute of Medical Research, 219
Queensland Museum, 204, 207, 208, 214, 216, 218
Queensland Natural History Society, 208, 213
Queensland Naturalists' Club, 208
Queensland Philosophical Society, 204
Queensland Royal Society, 208
Queensland Travelling Commission (Prickly Pear), 210, 212
Quercus (BOT.), 456, 457, 680, 854, 956
Quicke, D. L. J., 948
quiescence, 69, 70, 92, 256
Quinlan, J., 932, 954, 956
quinones, 40, 92, 324, 554; tanning, 35, 39, 58, 229, 322
Raatikainen, M., 688, 690
Rabb, R. L., 104
races (geographic), 113
radar, for insect studies, 105
radial sector, 16; in Polyphaga, 550
radicle, 916
Radinoderus, 742; *R. occidentalis* Alexander, 742
radius, of wing, 15-16
Ragge, D. R., 349, 371, 382, 395
Ragwelellus, 493
ragwort, *see* *Senecio jacobaea*
Ragyodes, 544
Rähle, W., 135
Rainbow, W. J., 199, 206, 207
Raine, R. C., 104
rainforests, 74, 194, 260, 261, 262, 263, 267, 274, 328, 340, 345, 355, 367, 384, 386, 389, 392, 401, 419, 449, 471, 478, 480, 482, 488, 497, 499, 562, 563, 613, 616, 626, 636, 640, 654, 656, 747, 749, 753, 770, 835, 838, 840, 841, 844, 855, 856, 857, 860, 864, 867, 873, 877, 880, 892, 893, 897, 899, 902, 906, 910, 912, 914, 944, 985, 987
Rallidens, 188, 281
Ramiheithrus virgatus Neboiss, 808
Ramírez, B. W., 963
Ramphotyphlops (REPTILIA), 339
Ramsay, G. W., 381
Ramsdelepion schusteri Kukulová-Peck, 155, 156
Rana (AMPHIBIA), 244
Ranatra, 486; *R. dispar* Montandon, 486
Ranatrinae, **486**
Randriamamonjy, F., 825
Raniliella, 390, 391
Rankin, M. A., 104
Raphidia, 173; *R. palaeformis* Aspöck and Aspöck, 521, 522, 523
Raphidiidae, 521, 522, 523, 524
Raphidioptera, 25, 28, 75, 77, 90, 133, 137, **138**, 142, 173, 175, **176**, 516, **521-4**, 556
Raphismia, 310; *R. bispina* (Hagen), 310
Rapismatidae, 530, 531, 535
Rapopotella, 261
Rasnitsyn, A. P., 143, 144, 151, 162, 167, 168, 172, 174, 175, 931, 932, 936, 938, 939, 978
raspberries, pests of, 934
Rastriopes, 264
rat-tailed maggots, *see* *Eristalis*
Ratardidae, 852
Ratcliffe, F. N., 199, 211, 219, 330, 341, 709, 732, 744
Rattus (MAMMALIA), 428, 624; *R. exulans*, 428; *R. fuscipes*, 708; *R. norvegicus*, 428; *R. rattus*, 428; *see also* rodents: rats
Rauschenberg, R. A., 200
Raven, P. H., 82, 193, 251
Raven, R. J., 182
Rayieria, 493
Raymont, P. T., 199, 206, 216, 993
Raymondia minuta (Jobling), 786
Readshaw, J. L., 80, 89, 246, 400
Recent Epoch, 141, 142, 144
rectum, 59; rectal pads, 59; rectal ventilation, 41
red-legged earth mite, *see* *Halotydeus destructor*
redbanded thrips, *see* *Selenothrips rubrocinctus*
Redheuil, M. E., 328
Redtenbacher, J., 15
Reduviidae, 49, 91, 227, 415, 430, 431, 435-43 *passim*, 488, **494-6**, 700, Pl. 3
Reduviinae, 495, **496**
Reduviioidea, 439, 443, 445, 447, 488, 491, **494-6**
Reduviomorpha, 494
Reesa vespulae (Milliron), 642
regeneration, 320, 352, 377, 395, 399
Regenfuss, H., 609
regurgitation, 79, 92, 353, 376, 398, 687, 828, 830, 927, 935, 978, 986; *see also* trophal-laxis
Rehn, J. A. G., 389, 392
Reichardt, H., 608, 644
Reid, C. A. M., 676
Reid, J. A., 920
Remaudiereana nigriceps (Dallas), 501
remigium, of wing, 13, 361, 395
Remington, C. L., 237, 238, 278
Remington, J. E., 237, 238
Remtinus dilatatus (Stål), 478
Remtoninae, 563, 571, 572, 598, **645**, 646
Rentz, D. C. F., 113, 119, 121, 181, 182, 321, 325, 328, 357, 358, 360, 369, 376, 380, 381, 382, 388, 392, 393, 632
repagula, of Neuroptera, 528
reproductive isolation, 113
reproductive system: female, 62-3; male, 62
reptiles (Reptilia), 82, 95, 96, 257, 304, 324, 339, 562, 732, 743, 794, 929; fossils, 174; geckos, 339, 415; lizards, 339, 351, 352, 355, 441, 986; pythons, 339; skinks, 339; snakes, 183, 339, 986; tortoises, 519
repugnatorial fluids, 100, 229, 371, 376, 382, 398
Resh, V. H., 794
resilin, 35, 52
resin, 78, 464; in nests, 929, 961, 975, 979, 993, 999, 1000
respiration (respiratory system), 39-42, 73, 75; cutaneous, 256, 886; *see also* gills; plastron
respiratory horns (trumpets), 63, 730; siphon, 73, 434, 486, 616, 730; stalk (of egg), 925
Restionaceae (BOT.), 194, 442, 502
retinaculum, 253, 545, 558, 821
retinula cells, 47, 48, 49
Reuplemmelini, 471
Reuter, O. M., 492
reversal (form of parallelism), 114
Reye, E. J., 746
Reyes-Castillo, P., 562, 627
Reynolds, D. R., 105
Rhabdepyris, 973
Rhabdoblatta, 323, 329
rhabdom (rhabdomere), 47, 48, 49, 250
Rhabdophloeus, 651
Rhabdoscelus obscurus (Boisduval), 683
Rhachiberothinae, 527
Rhadinominae, 681, **682**
Rhadinosomus, 682; *R. lacordairei* Pascoe, 681
Rhadinosticta, 307
Rhagadotarsinae, **484**
Rhagadotarsus, 484
Rhagionidae, 227, 734, 752, **753**, 754, 755, 756
Rhagovelia, 483; *R. australica* Kirkaldy, 483
Rhagoveliinae, **483**
Rhamnaceae (BOT.), 860
Rhantus suturalis (Macleay), 615
Rhapthidophoridae, 378, 380, **381**
Rhaphium pudicum (Parent), 719
Rhegmoclema, 748
Rheumatometra, 484
rhinarium: of Aphidoidea, 455; of Hymenoptera, 917; of Odonata, 294
Rhimiinae, 781, **782**

- Rhinocolinae, **449**
Rhinocoris, 438
Rhinocypha tincta Rambur, 307
Rhinophoridae, 735, 783
Rhinorhripidae, 117, 551, 553, 554, 563, 564, 570, **636**, 638
Rhinorhipus tamborinensis Lawrence, 551, 553, 554, 636, 638
Rhinorhynchinae, 194, **679**
Rhinotermitidae, 331-43 *passim*, **344-5**
Rhinotermitinae, **345**
Rhinotia, 680; *R. haemoptera* Kirby, Pl. 6
Rhinotoridae, *see* Heleomyzidae
Rhipiceria, 631; *R. femorata* Kirby, 632
Rhipiceridae, 117, 544, 558, 560, 562, 564, 565, 569, 589, 591, **631**, 632
Rhipidiinae, 562, 568, 585, 587, 663, **664**, 685
Rhipidioides, 664; *R. helenae* Riek, 663; *R. rubricatus* Riek, 663
Rhipidocerus australasiae Westwood, 673, Pl. 4
Rhipipallus, 966
Rhipiphoridae, 97, 98, 324, 552, 556, 560, 562, 565, 568, 574, 583, 585, 587, 590, **663-4**, 684, 685, 687, 929
Rhipiphorinae, 587, 590, 663, **664**
Rhipiphorus, 664
Rhipipterygidae, 378, 392
Rhizophagidae, 547, 565, 575, 581, 586, 605, 648, **650**, 659
Rhoades, D. F., 85
Rhodes, D., 248
Rhodnius, 35, 38, 57, 58, 63
Rhodogastris, 830, 909
Rhodomantis, 356
Rhodothemis lieftincki Fraser, 310
Rhombocoleidae, 176
Rhopaea, 562
Rhopalidae, 441, 444, 503, **504**, 506
Rhopalobrachium, 650
Rhopalocera, 895
Rhopalocerus, 582
Rhopalopsyllidae, 709, 710, 711, **714**
Rhopalosiphum: *R. insertum* (Walker), 455; *R. maidis* (Fitch), 455; *R. nymphaeae* (Linnaeus), 455; *R. padi* (Linnaeus), 454, 455; *R. rufiabdominalis* (Sasaki), 455
Rhopalosomatidae, 921, 931, **974**, 976
Rhopalothripoides froggatti (Bagnall), 515
Rhopalothrix, 989; *R. orbis* Taylor, 986
Rhopalum, 991
Rhoptromyrmex, 984
Rhotana chrysonoe Kirkaldy, 478
Rhotidus, 470
rhubarb, pests of, 889
Rhyacophilidae, 793, 795, 800
Rhyacophiloidea, 792, 794, 795, 797, **798-801**
Rhyngaeninae, **682**
Rhyngaenini, 585
Rhyngchitidae, *see* Attelebidae
Rhyngchitinae, 587, **680**
Rhynchium, 980
Rhyngchophora, *see* Curculionoidea
Rhyngchophorinae, 678, 681, **683**
Rhynchopsilopa, 777
Rhyngophthirina, 94, 421, 426
Rhyniella praecursor Hirst and Maulik, 143, 153, 259
Rhyniognatha hirsti Tillyard, 143, 154
Rhyothemis, 308, 310; *R. graphiptera* (Rambur), 310; *R. phyllis* (Sulzer), 310
Rhyothemistinae, **310**
Rhyparida, 678
Rhyparochrominae, 499, 500, **501-2**
Rhyparochromini, 502
Rhyparus, 561
Rhyphidae, *see* Anisopodidae
Rhysacephala, 932
Rhyssodidae, 564, 567, 592, **609-11**
Rhysopleura, 613
Rhyssa, 234, 924; *R. persuasoria* (Linnaeus), 944
Rhyssini, 944
Rhyssonotus, 626
Rhytidoponera, 353, 984-9 *passim*; *R. metallica* (Smith), 228, 262
Rhytiphora, 674; *R. dallasi* Pascoe, Pl. 4
Rhytirhininae, **682**
Rhyzobius, 563; *R. forestieri* (Mulsant), 658; *R. ventralis* (Erichson), 658
Rhyzodiastes, 611
Rhyzopertha dominica (Fabricius), 642
Ribautiana ulmi (Linnaeus), 472
Ricanidae, 170, 443, 474, 475, 477, **479**, 695, 972
rice, pests of, 226, 390-1, 476, 504, 515, 563, 690, 744, 780, 794, 887, 914
Rice, M. J., 241
rice moth, *see* *Coryca cephalonica*
Richanitschia luteomarginata (Hanitsch), 321
Richardiidae, 734, 770
Richards, A. G., 818
Richards, A. M., 71, 323, 381, 658, 751
Richards, O. W., 3, 33, 348, 690, 772, 916, 927, 971, 976
Richards, W. R., 170, 259, 264
Richardson, B. J., 110, 114
Richardson, E. S., 151, 158
Richardson, P. M., 115
Riche, C. A. G., 199, 201, 236
Riciniidae, 422, 426, **427**
Ricinus, 426, 427; *R. ernstlangi* Eichler, 422
Rickettsia (BACTERIA), 230, 709
Ridd, M. F., 193
Ride, W. D. L., 123
Ridley, M., 110, 118
Ridsdill Smith, T. J., 977
Riek, E. F., 131, 132, 143, 144, 154, 158, 159, 160, 161, 170-9 *passim*, 282-93 *passim*, 297, 324, 382, 516, 520, 525, 529, 535, 540, 541, 542, 664, 687, 688, 689, 690, 700, 702, 704, 763, 801, 807, 916, 931, 932, 934, 939, 952, 956, 969, 974
Riekella, 664; *R. australis* (Riek), 663
Riekoperla, 316, 318; *R. darlingtoni* (Illies), 314
Riekophion, 945
Rienits, R., 202
Rienks, J. H., 829
Riley, C. V., 210, 459
Riley, J. R., 104, 105, 107
Riley, 962
Rileyinae, **962**
Riodinidae, *see* Lycaenidae
Riodininae, **899**
Riptortus serripes (Fabricius), 504, 506
Risidae, *see* Ephyridae
Ritcher, P. O., 625, 626
Ritchie, J. M., 391
Rivellia, 770
Rivula ommatopis Meyrick, 912
Rivulinae, **912**
RNA, 248, 249
robber flies, *see* Asilidae
Robbins, R. K., 895
Roberts, F. H. S., 88, 424, 425, 427, 709, 759
Roberts, H., 656
Roberts, H. R., 111
Robertson, P. L., 925
Robin, C., 237
Robinjohniidae, 172
Robinson, B., 352
Robinson, G. S., 194, 822, 837, 847, 848, 850, 851
Robinson, M. H., 352, 376
Robinson, W. H., 763
Robshelfordia, 321
robustness (in classification), 119
Rochdalia parkeri Woodward, 158
Rodd, N. W., 938, 940
Roddy, L. R., 730
rodents, 93, 425, 428, 708, 709, 714, 715; mice, 243, 364, 425, 428, 716; nests, 94, 772; rats, 227, 230, 364, 404, 425, 428, 624, 708, 709, 714, 715, 716
Roderick, C., 202
Rodolia cardinalis (Mulsant), 210, 232, 459, 563, 658
Rodriguez, J. G., 468, 474
Rodwayia, 560, 619; *R. orientalis* Lea, 619
Roe, J. S., 199, 202
Roeder, K. D., 53, 830, 905
Roepke, W., 888
Roesler, R., 416
Roesler, R. U., 887
Roeslerstammia, 851
Roeslerstamiidae, 832, 847, 850, **851**, 852, 853, 855
Rogadinae, 947, **948**
Rohdendorf, B. B., 143, 162, 167, 173, 174
Rohlf, F. J., 120
Rolandia, 981
Rolfé, W. D. I., 143
Römer, H., 251
Room, P. M., 246
Roos, M. C., 190
root crops, pests of, 562, 637, 667
root-feeders, 223, 257, 325, 376, 455, 457, 465, 468, 476, 507, 562, 628-34 *passim*, 637, 667, 672, 675, 678, 682, 748, 749, 830, 831, 841, 870, 871, 876
Ropalidia, 228, 962, 979, 980; *R. kurandae* Richards, 980; *R. plebeiana* Richards, 980
Ropalomeridae, 734, 768
Roproniidae, 930, 949
Rosaceae (BOT.), 455, 456, 852
Rosario, R. M. T., 560
rose, pests of, 325, 364, 455, 682, 999
Rose, H. A., 324, 329
Rosen, D., 464
Rosenbergia megacephala van der Poll, 673
Rosopaella, 471
Ross, E. S., 165, 405, 689
Ross, H. H., 468, 684, 793, 795, 932
Ross, M. H., 323
Ross River virus, 230
rostrum, 330, 429, 678, 696, 917; *see also* proboscis
Roth, L. M., 21, 320-9 *passim*
Rothschild, G. H. L., 251
Rothschild, M., 95, 99, 100, 421, 708, 710, 830
Rothschild, W., 904
rotifers, as food, 257
Rotoitidae, 931, 957
rotten fruit or vegetable matter, 257, 530, 535, 618, 619, 620, 627, 628, 631, 634, 636, 640, 649, 653, 654, 656, 658, 660, 662, 664, 669, 671, 731, 740, 742, 747, 748, 749, 755, 757, 760, 762, 763, 769, 770, 771, 778, 780, 782; wood, 256, 260, 263, 266, 278, 313, 323, 328, 336, 342-7 *passim*, 358, 410, 480, 497, 553, 609, 614, 619, 621, 623, 624, 626, 627, 631, 635, 636, 637, 653, 656, 658, 660, 663-72 *passim*, 682, 683, 742, 747, 753, 758, 760, 771, 774, 775, 780, 835, 943, 971, 985, 987, 991, 995, 998, 999
Roughley, R. E., 609, 616
roundworms, *see* Nematoda
Rousset, A., 138
Rowe, R. J., 294
royal societies: (London), 200, 201, 202, 203, 209, 212; of Qld, 208
Rubiaceae (BOT.), 904
Rubink, W. L., 973
Rubus (BOT.), 935
Ruck, P., 49
Rudolph, D., 135, 412, 424
Rugg, D., 324, 329
Ruhnau, S., 609
Ruhoff, F. A., 494
Rumex (BOT.), 935
Rupilia, 678; *R. ruficollis* Clark, Pl. 5
Rupprecht, R., 518
rushes, 391, 502, 887
Russell, L. M., 461, 462
Russell, R. C., 744
rusts, *see* Uredinales

- Rutaceae (BOT.), 449, 452, 461, 464, 508, 509, 856, 895, 896
 Rutelinae, 563, 627, 628, 629, **630**, Pl. 4
 Rutherglen bug, *see* *Nysius vinitor*
Rutidosia (BOT.), 865
Rutilia, 783, 784; *R. formosa* Robineau-Desvoidy, Pl. 5
 Rutilliini, 562, 784
 Rypobiini, 658, 660
 Ryvkin, A. B., 178
- Sabatina*, 834, 835; *S. calliplaca* Meyrick, 835, 836; *S. porphyrodes* Turner, 835; *S. sterops* Turner, 835
 Sabrosky, C. W., 777
Saccolaemus, 682
 saccus, of Lepidoptera, 822
 Saciinae, 657, 658, **660**
 Sadanaga, K., 614
Saemundssonina: *S. africana* Timmermann, 426; *S. platygaster* (Denny), 422
 Saether, O. A., 135
Saga pedo Pallas, 371
 Saginae, 379, **384**
 sagittal planes, 3
Sagola, 624
Sagra, 563, 677; *S. papuana* Jacoby, 677, Pl. 4
 Sagrinae, 547, 562, 594, 596, 672, 675, 676, **677**, Pl. 4
 Saicinae, 495, **496**
 Saigusa, T., 182
 Saini, R. S., 554, 641
 Saint, R., 248
Saissetia coffeae (Walker), 463
 Sakai, S., 362, 365, 366, 367
 Saldidae, 75, 435, 443, **485**
 Saldinae, **485**
Saldoida, 485
 Saldoida, 440, 443, 445, 447, **485**
Saldula, 485; *S. brevicornis* Rimes, 485
Salduncula, 485
Salganea, 329
 Salicaceae (BOT.), 676
Salina, 262
 saliva, 53, 81, 91, 226, 229, 439, 700, 707; *see also* glands: salivary
 salivarium, 8
 salivary pump, 435, 707
 salivary toxins, 91-2, 442
Salix (BOT.), 453, 457
 Salmon, J. T., 252
Salmonella (BACTERIA), 219, 325
Salona panorpaepennis (Guérin-Méneville), 475, 477, 479
 Salpingidae, 75, 552, 561, 564, 565, 577, 581, 583, 584, 586, 588, 597, 598, 599, 606, 651, 660, **669-71**
 Salpinginae, 577, 584, 586, 588, 597, 598, 606, 669, 670, **671**
Salsola kali (BOT.), 223
 Salter, K. E. W., 978
Salvarella wallacei Greenslade and Najt, 254
Salvinia (BOT.), 113; *S. molesta*, 234, 235, 246, 563, 682
 Samuelson, G. A., 111, 124, 664
 Sanborne, M., 678
 sand flies, *see* Ceratopogonidae
Sandatus niger Knoch, 631
 sandalwood, *see* *Santalum*
 Sanders, D. F., 212
 Sanderson, M. J., 120
 sandgropers, *see* *Cylindrocheta*
 Sands, D. P. A., 96, 113, 682, 899
 Santalaceae (BOT.), 676, 897
Santalum (BOT.), 676, 773; *S. acuminatum*, 882; *S. lanceolatum*, 962
Saphophagus, 641
Saprencyrtus, 968
 Sapriniini, 618
Saprinus, 618
 Saprogliphidae (ACARINA), 980
Sapromyza flavimana Malloch, 770
 Sapromyzidae, *see* Lauxaniidae
 saprophagy, 363, 560, 618, 623, 637, 696, 697, 700, 704, 768; *see also* scavengers
Saprosites, 629
Saprus, 628; *S. griffithi* Blackburn, 629
Saptha, 877; *S. exanthista* (Meyrick), 877
 Sapygidae, 931, 974
 sarcolemma, 39
Sarcopetalum (BOT.), 493
 Sarcophagidae, 46, 88, 97, 212, 377, 729, 730, 733, 735, 768, **782**, 783, 950, 956, 961, 965
 Sarcophaginae, **782**
Sarcophilus (MAMMALIA), 708
Sarcoptes scabiei (ACARINA), 227
Sarcorohdenorfia, 46, 782; *S. hardyi* (Johnston and Ties), 783
Sarcosolomonina papuensis Shinonaga and Kurahashi, 88
Sarothrias, 563, 582; *S. lawrencei* Löbl and Burckhardt, 641-2
 Sarothriidae, *see* Jacobsoniidae
 Sarothripinae, **914**
 Sarrotriini, 665
Sartallus signatus Sharp, 623
 Sasaji, H., 658, 671
Sastrapada, 496
Sathropterus, 943
 Satô, M., 608, 634
 Saturniidae, 54, 64, 817, 832, 899, 900, 901, 902, **903-4**, 905, Pl. 8
 Saturniomiirini, 493
 Satyrinae, 40, 829, 895, **897**
Sauris, 891
 Saurophthiridae, 174
Saurophthiroides, 174
Saurophthirus, 174
 Savage, H. M., 160
 Savolainen, E., 282
 sawflies, *see* Symphyta
Saxatilitermes saxatilis Miller, 346
 scabies mite, *see* *Sarcoptes scabiei*
Scabina, 327
 scale (cuticular), 5, 12, 38, 55, 90, 228-9, 252, 272, 275, 413, 417, 607, 626, 628, 631, 642, 644, 645, 647, 656, 664, 679, 682, 743, 789, 817, 819, 820, 975
 scale (test), 93, 438, 448, 457, 458, 461, 464; *see also* letp
 scale (wing residue), 330, 332
 scale insects, *see* Coccoidea; armoured, *see* Diapsididae
 Scali, V., 394, 396
 scanning electron microscopy, 243
 scape, 7
 Scaphidemiini, 667
 Scaphidiidae, *see* Staphylinidae
 Scaphidiinae, 576, 620, 622, **623**
Scaphidium punctipenne Macleay, 620
Scaphisoma, 623
Scaphobaecocera, 623
Scaptia, 755; *S. auriflua* Donovan, 754, Pl. 5; *S. maculiventris* (Westwood), 719
 Scarabaeidae, 55, 80, 93, 94, 98, 113, 122, 208, 210, 247, 339, 530, 538, 543-8 *passim*, 555-64 *passim*, 568, 588, 602, **627-31**, 771, 949, 977, 979, Pl. 4, Pl. 5
 Scarabaeiformia, 564, 565, **625-31**
 Scarabaeinae, 184, 547, 562, 563, 628, **629-30**
 Scarabaeini, 630
 Scarabaeoidea, 57, 178, 544, 547-60 *passim*, 564, 565, 567, 614, **625-31**
 Scardiinae, 847, **850**
 Scartini, 563, 610, 612, 614
Scatella, 777
 Scathophagidae, 735, 780
Scatopse: *S. fuscipes* Meigen, 739, 748; *S. notata* (Linnaeus), 748, 749
 Scatopsidae, 721, 730, 734, 735, 736, 739, **747-8**, 749
 scatoshell, 556
 scatter diagram, 116
 scavengers, 77, 339, 381, 382, 482, 620, 647, 665, 671, 749, 763, 780, 848, 850, 868, 985, 987
 Scelimeninae, 387
Scelio, 377, 953, 954
Sceliodes cordalis (Doubleday), 889
 Scelionidae, 175, 182, 210, 233, 408, 441, 442, 509, 925, 926, 930, 952, **953-4**
 Scelioninae, 953, **954**
 Scelionini, 954
 Sceliotrachelinae, **952-3**
 Sceliphriini, 990
Sceliphron, 688, 690, 920, 923, 973, 990; *S. caementarium* (Drury), 990; *S. formosum* (Smith), 990; *S. laetum* (Smith), 225, 689, 990, 992, Pl. 6
 Scenopinidae, 734, 752, 753, **757**
Scenopinus, 757; *S. fenestralis* (Linnaeus), 757; *S. glabrifrons* Meigen, 757
 scent glands, *see* glands
 Schaefer, C. W., 432, 494, 499, 503, 504
 Schaefer, G. W., 104, 106
 Schal, C., 320, 323
 Schaller, F., 252
 Scharrer, B., 237, 241, 242, 249
 Schayer, A., 202
 Schedl, K. E., 650
Schedorhinotermes: 332, 333, 336, 337, 341, 345; *S. actuosus* (Hill), 278, 335; *S. derosus* (Hill), 345; *S. intermedius* (Brauer), 335
Schedotrioza, 450
 Schedvin, C. B., 236
 Scheller, R. H., 250
 Schicha, E., 647
 Schildknecht, H., 623
Schistocerca, 53; *S. americana* (Fabricius), 248
 Schistonota, 285, **287-93**
Schizaspidia, 966
Schizobothrus flavovittatus Sjöstedt, 391
Schizocerca pilicornis (Holmgren), 934
 Schizocoleidae, 176
 Schizodactylidae, 378
 Schizophora, 718, 731-5 *passim*, **763-86**
 Schizophoridae, 178
 Schizopodinae, 632
Schizoprymnus, 948
 Schizopteridae, 431, 433, 434, 435, 443, **481**, 482
 Schizopterinae, **481**
Schizopteromiris, 492
 Schlee, D., 170, 444, 479
 Schlein, Y., 140
 Schlesinger, M. J., 241
Schlettererius cinctipes (Cresson), 938
 Schlinger, E. I., 193
 Schlüter, T., 143
 Schmid, F., 795, 801, 803
 Schneider, J., 166
 Schneider, P., 547, 548
 Schneiderreit, G., 686
 Schodde, R., 196
 Schoenobiinae, **887**
 Schoenotenini, 877
 Scholefield, P., 358
 Scholtz, C. H., 625, 627, 852
 Schönitzer, K., 921
 Schönmann, H., 132
 School of Public Health and Tropical Medicine, *see* Commonwealth Government of Australia
Schoutedenia ralumensis Rübsaamen, 454, 456
Schrankia, 912
 Schreckensteiniidae, 832
 Schreckensteinoidea, 832, 833
 Schuh, R. T., 120, 182, 190, 193, 432, 435, 444, 480, 481, 485, 488, 489, 492, 493
 Schulze, L., 554
 Schuster, R., 621
 Schwartz, M. D., 492
 Schwarz, M. P., 993, 998, 1000
 Schwarz, T. L., 249

- Sciadocera rufomaculata* White, 762-3
 Sciadoceridae, 734, 753, **762-3**
Scianomas, 950
 Sciapodinae, **760-1**
Sciapus comexus (Walker), 760
Sciara, 726, 739, 750
 Sciaridae, 719, 726, 728, 730, 731, 734, 735, 736, 739, 740, 747, **749**, 750
Scieropepia, 862; *S. typhicola* Meyrick, 862
Sciogriphoneura, 768
 Sciomyzidae, 734, 765, **768**, 772
 Sciomyzoidea, 734, **768-70**
 Sciophilinae, **751**
Scirpophaga innotata (Walker), 228-9, 887
Scirtes, 624
 Scirtidae, 178, 547, 551, 558, 559, 560, 564, 566, 565, 570, 602, **624**, 625
 Sclater, P. L., 180
 Sclater, W. L., 180
Sclerocyphon, 560, 633, 635, 639; *S. bicolor* Carter, 74
 Sclerodermini, 973
Sclerodermus, 973
Sclerogibba, 972
 Sclerogibbidae, 408, 931, 970, **971**, 972
 sclerotisation, 35, 38, 39, 50, 58, 62
 Scoble, M. J., 834, 838, 840, 842, 852, 889, 892, 895
 Scolebythidae, 931, 970, **971**, 972
 scoli, of Lepidoptera, 826, 899
Scolia, 979
Scoliacma bicolora (Boisduval), 910
 Scoliidae, 175, 664, 926, 931, 974, **978-9**
 Scoliinae, **978-9**
 scolopale cell, 36, 44
Scolopia braunii (Bot.), 906
 scolopidium, 44, 45
Scolothrips, 515
Scolypopa australis (Walker), 475, 477, 479, 879
 Scolytidae, *see* Curculionidae
 Scolytinae, 54, 101, 547, 556, 560, 562, 576, 577, 579, 618, 642, 646, 678, 681, 682, **683**, 963, 965
Scolytus multistriatus (Marshall), 683
 scopa, 85, 921, 994, 995, 998, 999
Scopaeus, 624
Scoparia, 887
 Scopariinae, **887**
Scopelodes, 879
Scopula, 891
 Scopuridae, 314
 scorpion-flies, *see* Mecoptera
 Scorpiones, 143, 182
 Scott, A., 555
 Scott, A. W., 199, 202-3, 204
 Scott, Harriet, 199, 202-3, 205
 Scott, Helena, 199, 202-3, 205
 Scott, J. K., 85
 Scott, M. T., 425
 scraper (stridulatory), 49, 373
Scraptia, 672; *S. australis* Champion, 670
 Scraptiidae, 559, 565, 574, 588, 600, 670, **671-2**
 Scraptiinae, **672**
 screw-worm fly, *see* *Chrysomya bezziana*
 Scriven, G. T., 673
 scrobe, 678
Scrobiger splendidus (Newman), 646
Scrobipalpa, 869; *S. apatella* (Walker), 869
 scrotum, 381, 822
 Scudder, G. G. E., 18, 19, 435, 499, 502, 508
 Scutelleridae, 101, 435, 437, 438, 440, 444, 506, **508**, 509, 692, 693, Pl. 3
 Scutellerinae, **508**
 scutellum, 9
Scutilla, 389
Scutiphora pedicellata (Kirby), 508, Pl. 3
 scutum, 9
 Scydmaenidae, 564, 576, 589, 590, 591, **621**
 Scydmaeninae, **621**
 Scydmaenini, 621
Scydmaenus, 621; *S. myrmecophilus* Lea, 621
Scymena: S. amphibia Pascoe, 662; *S. variabilis* Pascoe, 566
 Scymninae, 657, **658**
Scymnoides bellus Pope and Lawrence, 657
 Scythrididae, 832, 859, 862, 865, 866, **869-70**
Scythris, 862, 865, 870; *S. rhabducha* Meyrick, 866, 870
 Scytinopteroidea, 169, 170, 179
 seaweed, 619, 623, 624, 769, 779, 780
 sebaceous gland mite, *see* *Demodex brevis*
Secanone (Bot.), 885
 sectasetae, of Hemiptera, 448
 Seddon, G., 194
 sedges, 391, 502, 677, 865, 887, 893, 897; *see also* Cyperaceae
 seed feeders, 70, 194, 382, 442, 499, 502, 503, 507, 562, 644, 645, 649, 672, 675, 677, 679, 682, 683, 771, 830, 835, 844, 857, 862, 864, 868, 869, 873, 881, 882, 883, 886, 887, 914, 929, 956, 962, 964, 965, 969; myrmecochory, 82-3, 985, 987
 seed-harvesting insects, 929, 985, 987
 seed mimics, 396, 469
 seed weevils, *see* Bruchinae
 Seeger, W., 614
 Seelinger, G., 102, 133
 Seelinger, U., 102, 133
 Seeno, T. N., 678
 Seevers, C. H., 619
 Segarra, C., 556
 Seger, J., 110
Segestes decoratus Redtenbacher, 688, 690
Segestidea novaeaguineae (Brancsik), 690
 Séguin, E., 717
 Seirinae, **261**
Sejanus, 492, 493
 Selander, R. B., 664
Selenothrips rubrocinctus (Giard), 515
 Selman, B. J., 678
 Selys, H. de, 297
 Sematuridae, 832
 Semenovioliinae, 167
 seminal fluid, 62; vesicle, 62
 Sen Gupta, T., 641, 642, 649-56 *passim*
Senecio (Bot.), 909; *S. jacobaea*, 563, 701
Senoclidea, 934
 sense organs, 43-9
 sensillum, of Siphonaptera, 705
 sensilla, 43-7; campaniform, 45, 46; hair (trichoid), 43, 44-5; multiporous plate, 917; olfactory, 47, 48; tactile
Sensoriaphis, *see* *Taiwanaphis*
 sensorium, 558
 sensory pits (plaques), 720
Sepedon, 768
Sepedophilus, 622
 Sephton, D. H., 314
 Sepsidae, 182, 734, 765, **769**, 772
Serendipsylla, 714, 716; *S. marshalli* Smit, 716
Sericesthis, 562; *S. geminata* Boisduval, 630
 sericin, 54
 Sericoderinae, 658, **660**
Sericoderus, 658, 660
Sericophorus, 92, 991, 992
Sericopimpla, 944
 Sericostomatidae, 795, 809
 Serphitidae, 923, 957
Serphonostus, 952
 Serriintermitidae, 341
Sertorius australis (Fairmaire), 473
 Service, M. W., 217
Sesbania (Bot.), 897
 Sesiidae, 824, 830, 831, 832, 855, 874, 875, **876-7**, Pl. 7
 Sesiioidea, 820, 832, 833, 846, 847, 872, **874-7**, 885
Setanodosa, 260, 261
 setation, of Lepidoptera larvae, 825-6, 827
Setocoris, 88, 492, 493
Setomorpha rutella Zeller, 850
 Setomorphaeinae, 850
 sewage and sewers, pests of, 325, 747
 Sewell, J. J., 337
 sex attractants, 334; *see also* pheromones
 sex determination, 251, 336, 350, 358, 362, 372, 396, 437, 556, 700, 728, 927
 sex patches, 551, 561, 679, 819, 893
Sexava, 688; *S. nubila* (Stål), 690, 694
Sextius, 473; *S. virescens* (Fairmaire), 472, 473
 Shaposhnikov, G. K., 170, 456, 457
 Sharif, M., 708
 Sharov, A. G., 134, 163, 164, 165, 169, 272, 275, 276
 Sharplin, J., 818, 821
 Shaw, A. E., 199, 208, 216
 Shaw, D. D., 243, 390
 Shaw, M. R., 928
 Shaw, S. R. (Chapter 39), 735
 Shaw, S. R. (Chapter 42), 939, 948
Shawella: S. atra (Princis), 323; *S. coultoniana* (Sausurre), 325, 327; *S. douglasi* (Princis), 323
 Shcherbakov, D. E., 170, 171, 434
 Shear, W. A., 77, 143, 155
 sheep blowfly, *see* *Lucilia cuprina*
 sheep bot fly, *see* *Oestrus ovis*
 sheep ked ('tick'), *see* *Melophagus ovinus*
Shelfordina orchidae (Asahina), 321, 325
 shellac, 442, 464
 Shelley, A. J., 112
 Shenefelt, R. D., 945-6
 Shepherd, R., 709
 shield bugs, *see* Pentatomoidea
 Shipp, E., 399
Shoguna, 650
 shore bugs, *see* Saldidae
 Short, J. R. T., 943
 shot-hole borers, *see* Platypodinae
 Shuvalov, V. F., 88
 Sialidae, 138, 176, 516, 517, 518, 519, **520**
 Sialidopsidae, 175
Sialis, 517
 Sibioperlidae, 163
 Sibley, C. G., 244, 250
 sibling species, 112-13
 Siculodinae, **886**
Sida (Bot.), 391, 869, 912
Sidnia kinbergi Stål, 493
Sierola, 973
 Sierolomorphidae, 931, 974
 Siewing, R., 127
 Sigalphinae, 947, **949**
Sigara (Tropocorixa), 488
 signa, of Lepidoptera, 824
Signiphora, 970
 Signiphoridae, 930, 935, 957, 958, **968**, 970
 Sikes, E. K., 425
Silba, 770
 silk, 53-4, 91, 271, 350, 380, 381, 415, 512, 528, 530, 537, 538, 539, 559, 624, 656, 730, 731, 746, 792, 793, 794, 800, 801, 803, 807, 817-914 *passim*, 899, 925; galleries or shelters, 405, 406-7; nests, of Hymenoptera, 929, 985, 991; *see also* glands: silk; webbed constructions
 silkworm, *see* *Bombyx mori*
 Silphidae, 101, 548, 554, 561, 562, 564, 571, 583, 597, 620, **621**
Silphomorpha, 614
 Silurian Period, 141, 142, 143
 Silvanidae, 560, 561, 565, 566, 573, 575, 578, 588, 591, 599, 601, 605, 650, **651**, 652
 Silvaninae, 573, 578, 588, 599, 601, **651**, 652
Silvanolomus, 651
Silvanus, 651; *S. unidentatus* (Olivier), 652
 silverfish, *see* *Thysanura*
 Silvestri, F., 265, 269, 271, 690
 Simon, C., 114
Simosyrphus, 763
Simplicia circumscripta (Walker), 910, 911
 Simpson, G. G., 112, 119, 184, 193
Simsonia, 634; *S. tasmanica* (Blackburn), 42
 Simuliidae, 36, 66, 68, 73, 74, 112, 218, 219,

- 227, 284, 719, 729, 731, 732, 734, 737, 738, 742, 745, 746-7
Simulium, 36, 112, 747; *S. ornatipes* Skuse, 738, 745, 747
 Sindbis virus, 230
 Sinentomidae, 266, 267
 Singh, G., 197
 Sinichenkova, N. D., 158, 159, 160, 163
Sipalinus, 563
Siphanta, 478; *S. acuta* (Walker), 478-9, Pl. 3; *S. eberhardi* Fletcher, 478
Siphonella, 188
Siphonisca, 188
 Siphonuridae, 132, 151, 160, 179, 188, 285, 286, 287, 288, 289
Siphonurus, 188
Siphuriscus, 188
 siphon, 552
 siphon, *see* respiratory siphon
 Siphonaptera, 27, 30, 35, 52, 62, 67, 68, 93, 94-6, 133, 139, 140, 142, 172, 174, 179, 182, 227, 229, 230, 233, 425, 490, 556, 705-16
 Siphonellopsidae, *see* Chloropidae
Siphonodon australis (Bot.), 887
 siphunculus, 453
Sipyloidea, 396, 401; *S. filiformis* Redtenbacher, 397, 401; *S. nelida* Rentz and John, 396, 398, 399; *S. ovabidita* Rentz and John, 396, 399; *S. similis* Rentz and John, 396, 399
Sirex noctilio Fabricius, 233-4, 924, 929, 932, 933, 938, 944, 956
 Siricidae, 59, 556, 924, 929, 930, 931, 932, 933, 934, 939, 945, 956
 Siricinae, 932
 Siricoidea, 917, 928, 930, 931, 932-4, 935, 936
Sirrhias, 574, 597, 665, 666
 sister group, 116
Sisyphus, 630
Sisyra, 529, 533, 536, 537
 Sisyridae, 28, 137, 527-36 *passim*, 537
Sisyrina, 537
Sisyromyia, 759
Sitarida, 664; *S. scabriceps* Lea, 664
Sitobion, 455
Sitona discoideus Gyllenhal, 682, 970
Sitophilus, 563; *S. granarius* (Linnaeus), 683; *S. oryzae* (Linnaeus), 683; *S. zeamais* Motschulsky, 683
Sitotroga cerealella (Olivier), 869
Sivacrypticus, 660
 Sivinski, J., 640
 Sjöstedt, Y., 389
 Skedros, D. G., 292
 skeleton weed, *see* *Chondrilla juncea*
 Skidmore, P., 780
 skippers, *see* HesperIIDae
 Skuse, F. A. A., 199, 205, 749
 Slack, A., 86, 88
 Slater, A., 502
 Slater, J. A., 429, 492, 494, 498-503 *passim*
Slaterellus, 502; *S. hackeri* Drake and Davis, 500
 slaters, *see* Isopoda
 Slaytor, M., 336
 Sliifer, E. H., 46, 47, 349, 358, 369
 slime fluxes, 642
 slime moulds, *see* Myxomycetes
 Slipiński, S. A., 642, 649, 651, 656, 664
 Sloane, T. G., 199, 215, 216
 Slobodchikoff, C. N., 927
 smell, sense of, 47
Smicromorpha, 48, 961; *S. doddi* Girault, 960
 Smicromorphinae, 960, 961
Smicrophylax, 790
 Smilacaceae (Bot.), 897
 Sminthuridae, 154, 253-9 *passim*, 263-4
Sminthurides, 263
 Sminthuridinae, 263
 Sminthurinae, 256, 264
 Sminthurini, 256, 264
Sminthurus viridis (Linnaeus), 207, 256, 257, 264
 Smit, F. G. A. M., 68, 710
 Smith, A. G., 205, 210, 216
 Smith, A. M., 108
 Smith, B., 202
 Smith, D. R., 932, 934, 935
 Smith, D. S., 685
 Smith, E. L., 128, 145, 146, 150, 153, 154, 170, 273, 924
 Smith, G. B., 272, 275, 277, 278
 Smith, H. D., 685
 Smith, H. S., 245
 Smith, J. M. B., 193
 Smith, K. G. V., 760, 768
 Smith, P. H., 241
 Smith, R. E. W., 74
 Smith, R. F., 200
 Smith, S. G., 556
 Smith, S. M., 730
 Smith-White, S., 245
 Smithers, C. N., 107, 111, 250, 404, 410, 412, 415-20 *passim*, 700, 701, 703
 smoke fly, *see* *Microsania australis*
 snails, as hosts or prey, 97, 560, 614, 621, 640, 768, 782
 snake-flies, *see* Raphidioptera
 Sneath, P. H. A., 110, 115, 118, 119
Snellenia, 860; *S. lineata* (Walker), 830, 860, Pl. 6, Pl. 7
 Snelling, R. R., 961, 980
 Snodgrass, R. E., 3, 5, 6, 9, 15, 17, 18, 21, 22, 24, 33, 35, 36, 39, 41, 51, 52, 56, 66, 149, 269, 350, 371, 395, 423, 552, 705, 726, 923
 snow, 69, 358, 703
 Snowball, G. J., 464
 Snyder, A. W., 250
 Snyder, T. E., 330
 Sober, E., 118
 social (eusocial) behaviour, 101-3, 144; Hemiptera, 454; Hymenoptera, 102-3, 251, 928, 929, 936, 974, 979, 980-9, 990, 993, 998, 999-1000; Isoptera, 330, 333-7; Thysanoptera, 513
 social insects, 55, 63, 70, 101-3, 330-47, 929; *see also* subsocial insects
 social parasites, 929, 980, 984, 1000; *see also* cleptoparasites; inquilines
 socii, of Lepidoptera, 822
 sodium, 43, 61
Sogatella: S. furcifera Horváth, 690; *S. kolophon* (Kirkaldy), 476, 690
 soil: as habitat, 256, 257, 261, 263, 264, 266, 269, 270, 303, 323, 328, 329, 333, 336, 337, 340-1, 345, 346, 347, 376, 386, 392, 409, 459, 465, 507, 528, 530, 541, 553, 562, 613, 618, 627, 630, 631, 637, 638, 640, 656, 665, 677, 678, 682, 700, 704, 731, 740, 748, 753, 755, 756, 758, 760, 780, 831, 840, 841, 860, 863, 870, 871, 874, 900, 921, 925, 929, 943, 945, 949, 950, 954, 970, 973, 975, 977, 979, 980, 985, 990, 991, 993, 996, 998, 999; renovation of, 257, 258, 340, 987
 Sokal, R. R., 110, 115, 118, 119, 120
 Solanaceae (Bot.), 493, 658, 677, 869
 Solander, D. C., 199, 200, 201, 236
 Soldán, J., 131
 Soldán, T., 282, 285, 286
 soldiers: of Aphidoidea, 93, 441, 454; of Hymenoptera, 929, 982; of Isoptera, 93, 330, 332-3, 335, 336, 337
Solenopotes capillatus Enderlein, 428
Solenopsis geminata (Fabricius), 987
Solenotichus, 508
Solva laeta Daniels, 755
 Solvidae, *see* Xylomyiidae
 Somabrachyidae, 832
 Somatiidae, 734
 song, of insects, 44, 113, 369, 373-6, 435, 465
 Sonidae, 162
 Soós, A., 717
 Sopp, E. J. B., 362
 Sorama, 908
Sorbus (Bot.), 962
 Sorensen, J. T., 825
 sorghum, pests of, 489, 493, 749, 868
 sorghum midge, *see* *Contarinia sorghicola*
Sorolopha, 873
Sosylus, 585, 589, 590, 656
 sound production, 49-50, 88, 100, 313, 329, 373-6, 391, 398, 415, 435, 465, 494, 529, 803, 830, 887, 889, 909, 914, 926-7, 934, 945, 986; *see also* stridulation
 South Australian Department of Agriculture, 207
 South Australian Museum, 207, 214, 215
 Southcott, R. V., 207, 222, 226, 228, 264, 494, 830
 Southwood, T. R. E., 77, 78, 103, 104, 111, 437, 438, 479
 Souza Lopes, H. de, 782
 soybean, pests of, 233, 562, 854, 914
 Spahr, U., 178
Spalangia, 964, 965
 Spalanginae, 964, 965
 Spangler, H. G., 561, 642, 818, 830, 887
 Spangler, P. J., 608
 Spanioderidae, 163
Spaniopsis, 753
Sparactus, 664; *S. elongatus* Blackburn, 661
 Sparassidae (ARANEAE), 975
 Sparks, A. N., 104
Spathius, 946, 948
 Specht, R. L., 181
 speciation, 112, 183-4, 195; mechanisms, 243
 species, 109, 112-13; aggregate of, 122; species group, 121, 122; polytypic, 113
 Spencer, K. A., 775, 780
 Spencer, W. B., 196
 Spercheinae, 617, 618
Spercheus, 562, 579, 590, 618; *S. platycephalus* Macleay, 617, 618
 sperm (spermatozoa), 62, 63
 spermalege, 435, 440, 490
 spermatheca, 62, 63
 spermatophids, in Thysanura, 276
 spermatophore, 18, 62, 63, 256, 270, 273, 276, 323, 352, 376, 399, 415, 822-3
 spermatophylax, 251
 Spermatophyta (Bot.), 77
Spermophorella, 533, 538
Sphaenognathus, 564, 626
Sphaeranthrum, 640
Sphaeridia, 256, 263
 Sphaeridiinae, 558, 585, 617, 618
Sphaeridium discolor Orchymont, 617, 618
Sphaeriestes mutilatus (Beck), 669
 Sphaeriidae, *see* Microsporidae
 Sphaeritiidae, 564
Sphaerius, *see* *Microspor*
Sphaerocera, 772; *S. curvipes* Latreille, 772
 Sphaeroceridae, 734, 766, 772, 774, 956
Sphaerococcopsis, 461
Sphaerodema, *see* *Diplonychus*
 Sphaeropsocidae, 416, 417, 418
Sphaeropsocopsis, 415
Sphaerotherax, 625
Sphallomorpha, 561, 614; *S. biplagiata* (Laporte), 610; *S. colymbetoides* (Westwood), 610
Spharigeris, 667; *S. physodes* Pascoe, 665
 Sphecidae, 92, 175, 185, 225, 352, 377, 442, 513, 664, 673, 689, 690, 691, 732, 757, 919, 920, 921, 923, 927, 928, 929, 931, 936, 940, 961, 973, 975, 977, 989-93, Pl. 5, Pl. 6
 Spheciinae, 695, 990-1, 992
 Sphecini, 991
Sphecius, 919, 991; *S. pectoralis* (Smith), 992
 Sphecodes, 995, 998
 Sphecoidea, 695, 916, 918, 921, 924, 931, 936, 938, 989-93
 Sphecomyrmididae, 175
Sphenarches anisodactylus (Walker), 884

- Sphex*, 991, 992
Sphinctomyrmex, 983, 984, 985, 987; *S. steinheili* Forel, 988
 Sphindidae, 547, 564, 566, 571, 575, 601, 648, **649**
 SpHINGidae, 88, 825, 829, 830, 831, 832, 899, 903, **904**, 905
 SpHINGinae, **904**
 SpHINGoidea, 821, 832, 833, 846, 895, **904**, 905
SpHINGonotus, 389, 391; *S. erythropterus* Sjöstedt, 375
Sphodromantis lineola pinguis La Greca, 694
Sphodropoda, 356
Sphodrotes, 991
 spicisetae, of Coleoptera, 561, 642
 spiculum gastrale, 551
 spiders (Araneae), 32, 76, 91, 100, 143, 182, 780; as predators, 89-90, 257, 274, 277, 284, 314, 377, 400, 415, 441, 442, 530, 562, 700, 732, 831, 929, 986; as prey, 92, 636, 700, 928, 929, 975, 990, 991; mimics, 382; parasites of, 97, 538, 756, 956, 975; spider eggs, 530, 538, 780, 782, 829, 860, 943, 945, 953, 954, 962, 968, 969, 975; webs as habitat, 644, 740, 749, 750, 912
 Spilman, T. J., 634, 669, 671
Spilocoelis, 535
Spilomena, 513, 991
Spilomitus, 950
Spilosyllus, 710; *S. cuniculi* (Dale), 93, 95, 233, 708, 709, 710, 714
Spilopyra sumptuosa Baly, 678, Pl. 5
 Spilosmylinae, **536**
Spilosmylus, 536
Spilosoma, 909; *S. canescens* (Butler), 907, 909; *S. glatignyi* (Le Guillou), 831, 909
Spilostethus hospes (Fabricius), Pl. 3
 spina, 5, 10
Spinaeschna, 309
 spinasternum, 10
 spindle tree, *see* *Euonymus*
 spined citrus bug, *see* *Biprorulus hibax*
 spinifex, 356, 488
 spinneret, 825, 826, 925, 989
 Spinothecini, 263
 spiracle cover-lobe, 918
 spiracles, 5, 10, 39, 40, 41, 42, 73; annular-biforous, 559; annular-uniforous, 559; biforous, 559; cribriform, 559; panorpoid, 556
 spiracular arrangement: amphipneustic, 41, 730; apneustic, 39, 41, 558, 700, 730; hemipneustic, 41, 558, 700; holopneustic, 41, 730, 817; metapneustic, 41, 558, 730; oligopneustic, 41; peripneustic, 41, 558, 699, 730, 817; polypneustic, 41; propneustic, 41, 730
 spiracular gills, 608; *see also* gills
 spittle bugs, *see* Cercopoidea
Spodoptera, 914; *S. exempta* (Walker), 914; *S. exigua* (Hübner), 226; *S. litura* (Fabricius), 914
 Spondyliaspidae, 438, 441, 442, 448, **449**, 451
Spondyliaspis plicatuloides (Froggatt), 451
 sponge-flies, *see* Sisyridae
 sponges (freshwater), parasites of, 530, 537
 Spongiphoridae, 363, 364, 365, 366, **367**
 Spongiphorinae, 366, **367**
 Spongiphoroidea, 365
 spoon-winged lacewings, *see* Nemopteridae
 Sporozoa (PROTOZOA), 273, 276, 364, 408
 Spradbery, J. P., 91, 96, 97
 Spratt, D. M., 755, 785
 Springett, B. P., 80
 springtails, *see* Collembola
 spumaline, 790
 squama: of Dermaptera, 361; of Diptera, 723
 squama genitalis, 265
 Srivastava, U. S., 554
 St John's wort, *see* *Hypericum perforatum*
 stable fly, *see* *Stomoxys calcitrans*
 Stach, J., 155
 Staddon, B. W., 55, 435, 495
 Stage, G. I., 961
 Stainton, H. T., 238
 Stalker, H. D., 762
 Stammer, H. J., 732
 Stanbury, P. J., 201, 203
Stangeia xerodes (Meyrick), 885
 Staphylinidae, 73, 75, 90, 93, 94, 178, 257, 339, 442, 543, 544, 549, 550, 554-64 *passim*, 573, 576, 583, 589, 591, 594, 595, 596, 597, 618, 620, **621-4**, 952, Pl. 5
 Staphyliniformia, 560, 564, 565, **617-24**
 Staphylininae, 559, 622, 623, **624**
 Staphylinoidea, 178, 440, 502, 546-52 *passim*, 564, 565, 584, 617, **618-24**
 Starcke, H., 705
 Stary, P., 948
Stathmopoda, 829, 831, 855, 859, 860, 862, 863, 867; *S. arachnophthora* Turner, 860; *S. callichrysa* Lower, 860, 861; *S. cephalaea* Meyrick, 860; *S. chalcotypa* Meyrick, 860; *S. crocophanes* Meyrick, 860; *S. melanochra* Meyrick, 860
 Stathmopodinae, 442, 830, 859, **860**
 Staub, P. F., 511
Stauralia, 507; *S. chloracantha* Dallas, Pl. 3
Staurostichus, 759
 Stay, B., 240, 322, 324
 Stayella, 323, 324
 Stearn, W. T., 201
 Stebnicka, Z., 630
 Steffan, A. W., 560
 Steffan, J.-R., 489
 Steffan, W. A., 749
Steffanolampus, 965
Stegasta, 865
Stegobium paniceum (Linnaeus), 562, 643, 644
Stegomata, 858; *S. leptomitella* Meyrick, 859; *S. sulfuratella* Meyrick, 859
Stegomyia, *see* *Aedes*
 Stehr, F. W., 24, 559, 826, 834
 Steiner, W. E., 653
 Steinmann, H., 362, 365, 366, 367
Stelidota, 649
 stem-borers, 223, 654, 662, 663, 677, 680, 682, 732, 777, 780, 830, 831, 840-1, 842, 852, 857, 860, 862, 863, 864, 868, 870, 872, 873, 874, 877, 880, 885, 886, 887, 889, 912, 931, 932, 934, 965, 969, 973, 993, 996, 999
 stem group (in cladistics), 116-17
 stemmata, 49
 Stemmocryptidae, 443, 481
Stemorrhages marthesiumalis (Walker), Pl. 7
Stenachroia, 887
Stenchaetothrips biformis (Bagnall), 515
Stenectoneura, 321
 Stenelytridae, *see* Labidelytridae
Stenichnus, 621
 Steninae, 554, 622, **623-4**
Stenobates, 484
Stenobiella, 538
Stenocarpus (BOT.), 904
 Stenocephalidae, 444, **503**, 504
 Stenocotini, 469, 470
Stenocotus, 470; *S. depressa* (Walker), 430, 470
 Stenodemiini, 493
 Stenogastrinae, 979
Stenolemus, 496
Stenolysmus, 537
 Stenomantinae, 859, 860, **863-4**
Stenomicra, 766, 767, 777
 Stenomicridae, *see* Periscelididae
Stenonabis, 491
 Stenopelmatidae, 375, 378, **380**, 381
Stenoperla, 64, 313, 314, 315, 316; *S. denise* Theischinger, 317; *S. kuna* Theischinger, 317
Stenoperlidium, 163
 Stenoperlinae, **315**
Stenophragma, 751
Stenophyella macreta Horváth, 502
 Stenopodainae, 495, **496**
 Stenopsocidae, 416, 418, **419**
Stenopsoides turneri Evans, 470-1
 Stenopsychidae, 787, 788, 795, 796, 797, 799, **801**, 804
Stenopsychodes, 801; *S. aureonigra* Schmid, 788; *S. mjobergi* Ulmer, 799, 804
Stenoptilia zophodactyla (Duponchel), 885
Stenoscoptes drummondi Evans, 470
Stenosialis, 519, 520
 Stenosmylinae, **536-7**
Stenosmylus, 537
Stenotarsus, 658; *S. pisoniae* Lea, 657
Stenothremma, 948
 Stenotritidae, 930, 931, 943, 995, **996-8**
Stenotritus, 996-8
Stenus, 73, 90, 623-4
 Stephanidae, 930, **938**, 939, 963
 Stephanitis: *S. pyrioides* (Scott), 494; *S. queenslandensis* Hacker, 494; *S. rhododendri* Horváth, 494
 Stephanocircidae, 709, 710, 713, 714, **715**
 Stephanocircinae, 709, **715**
Stephanocircus, 705, 714, 715; *S. dasyuri* Skuse, 715
 Stephanoidea, 97, 917, 930, 935, 936, **938**, 939
Stephanopsylla, 714; *S. thomasi* (Rothschild), 716
 Stephenson, R., 195
Sterculia (BOT.), 852, 864
 Sterculiaceae (BOT.), 449, 450, 649
Stericta carbonalis (Guenée), 887
 Sterictiphorinae, **934**
 sterigma, of Lepidoptera, 824
 sternaulus, 918
 sternellum, 10
Sternochaetus mangiferae (Fabricius), 683
 sternopleuron, 10
 Sternorrhyncha, 57, 61, 81, 168, 170, 429-45 *passim*, **448-64**, 497, 968
 sternum, 5; sternite, 5
 steroids, 50
 sterols, 58
 Sterrhinae, **891**
Sterromela trimaculata (Chapuis), 674
Stetholus, 634; *S. elongatus* Carter and Zeck, 633
Stethomela, 678
Stethopachys formosa Baly, 674, 677
Stethorus, 658
Stethynium, 970
 Stevens, M. M., 469
 Stewart, W. E., 307
 Steyskal, G. C., 753, 768, 770
Sthenarus, 493
Stibadocerodes, 741
 Stibick, J. N. L., 638
 Sticholotidinae, 582, **658**
Stichonotus, 614
Stichopogon, 757
Stichotrema, 178, 686; *S. dallatorreanum* Hofeneder, 687, 688, 694; *S. vilhenai* Luna de Carvalho, 687, 694
 stick-insects, *see* Phasmatodea
 stickfast fleas, *see* *Echidnophaga*
 Stickney, F. S., 464, 546
 Stictococcidae, 443
 Stictopterinae, 912, **914**
 stigma, *see* pterostigma
Stigmacros, 987
Stigmella, 842, 844; *S. anazona* (Meyrick), 845
 Stigmellinae, *see* Nepticulinae
Stigmodera, 632; *S. alternata* Lumholz, Pl. 4; *S. amabilis* Laporte and Gory, Pl. 4; *S. chevrolati* Géhin, Pl. 4; *S. gratiosa* Chevrolat, Pl. 4; *S. nasuta* Saunders, Pl. 6
 Stigmoderini, 563, 632
 Stilbopinae, 945
 Stilbopterygidae, *see* Myrmeleontidae

- Stilbopteryginae, 527, 531, 540, **541**
Stilbopteryx, 540, 541
Stilbum cyanurum (Förster), 973, Pl. 5
Stilida indecora Stål, 508
 stilt bugs, *see* Berytidae
 stinging insects, 99, 100, 103, 226, 227-8, 229, 927, 928, 929, 944, 980, 982, 990, 1000; stinging hairs, *see* urticating insects
 stingless bees, *see* *Trigona*
 stink bugs, *see* Pentatomoidea
 Stinner, R. E., 104
 stipes, 8
 Stiriinae, **914**
 Stitz, H., 790
 Stivaliinae, 709, **715**
 Stizini, 442, 990, 991-3
 Stoetzel, M. B., 456, 464
Stolotermes, 340, 344
 Stolotermitinae, **344**
 stomodaeal nervous system, 43
 stomodaeum, 56
 Stomoxiinae, *see* Muscinae
 Stomoxyni, 780
Stomoxys calcitrans (Linnaeus), 227, 780
 Stone, A., 717
 Stonedahl, G. M., 182, 190, 193
 stoneflies, *see* Plecoptera
 stored products, pests of, 226, 230, 242, 325, 414, 415, 417-18, 489, 562-3, 642, 644, 645, 646, 650-60 *passim*, 667, 671, 677, 679, 683, 831, 850, 860, 869, 886, 887, 945, 965, 973
 Storey, R. I., 630
 Storeyinae, **965**
 Stork, N. E., 110, 547
 Storozhenko, S., 357-8
 Stradling, D. J., 441
 Strahan, R., 80, 88, 203, 205
 Strassen, R. zur, 169
 Strates, E., 513
 Stratiomyidae, 718, 723, 730, 731, 734, 751, 752, 754, **755**, 950, 961, Pl. 6
 Strauss, R. E., 118
 strawberries, pests of, 501
 Streblidae, 93, 94, 731, 735, 768, **785-6**
Strepera graculina (AVES), 89, 400
 Strepsiptera, 24, 28, 31, 97, 98, 133, **136-7**, 142, 144, 176, 177, **178**, 276, 441, 544, 556, 565, 644, **684-95**, 794, 929, 960, 987
 stretch receptor, 45
 striae (strial punctures), 548
 Stribling, J. B., 636
Stricticimex brevispinosus Usinger, 440
 Stride, G. O., 634
 stridulation (stridulatory organs), 49-50, 329, 353, 369, 370, 371, 373-6, 398, 413, 415, 435, 558, 615, 626, 627, 650, 651, 672, 675, 679, 864, 926-7, 931, 934, 977, 986
 strigil: in sound production, 49; on leg, 921
Strigina, 886
 Strigilinae, **886**
 Strohecker, H. F., 658
 Strommer, N., 491
 Strong, D. R., 78, 79, 82, 91
 Strong, L., 396
 Strongyliini, 599, 667
Strongylophthalmyia, 770, 772
 Strongylophthalmyiidae, *see* Tanypezidae
Strongylorhinus ochraceus Schönherr, 682
 strophandry, 927, 931
 Struhl, G., 248
Strumigenys, 985, 989; *S. perplexa* (Smith), 984; *S. xenos* Brown, 984
 Strümpel, H., 448, 464, 468
 Stückenberg, B. R., 747, 753, 770
 Sturm, H., 272, 273, 274
Styloclista, 950, 951
 style: antennal, 719; caudal, 19; coxal (sub-coxal), 18; *see also* gonostyle
 stylet (of mouth-parts), 9, 429, 720; sheath, 53, 439
 stylets, of Hymenoptera, 924
Stylogaster, 765, 768, 769
 Stylopidae, 686-94 *passim*, **695**
 Stylopida, 686, 687, 689, 691, **692-5**
 Stylopininae, **695**
 stylopinisation, 685, 929
 Stylopoidea, 565
Stylops, 695; *S. pacificus* Bohart, 687-8, 689
 stylus, in Coccinellidae, 658
Styphlolepis agenor Turner, 888
 Styracotechyinae, **935**
Styracotechys, 935
 Stys, P., 131, 135, 429, 444, 480, 481, 491, 494, 499, 503
 sub-elytral cavity, 543
 subalar sclerites, 10
 subalare (subalaria), 13
Subancistrocerus, 980
 subantarctic islands, 68, 69, 257, 261, 314, 480, 669, 709, 714, 742, 779, 819
 subantennal groove, 917
 subaptery, *see* microptery
Subclavontella, 260-1
 subcosta, of wing, 15
 subcoxa, 145, 253
 subepaulet, *see* humeral plate
 subfemur, 109
 subgenital plate, 19, 21
 subgenital organs, *see* chordotonal organs
 subgenus, 109, 121
 subimago, 131, 150, 152, 280, 282, 284
 submarginal cells, 921
 submentum, 545
 subnodus, of Odonata, 297
 suborder, 109
 subscutellum, 721
 subsocial insects, 102, 103, 251, 337, 407, 562, 627, 979, 991, 993
 subspecies, 109, 113, 122
 subterranean insects, 276, 337, 339, 342-7 *passim*, 357, 376, 380, 385, 386, 393, 438, 439-40, 455, 457, 461, 465, 467, 476, 528, 529, 535, 541, 665-7, 965; *see also* soil
 subtribe, 109
 Sudd, J. H., 989
 sugar ants, *see* *Camponotus*
 sugar bag bees, *see* *Trigona*
 sugar cane, pests of, 208, 452, 459, 463, 464, 465, 468, 475, 479, 493, 499, 562, 630, 637, 678, 682, 683, 755, 850, 897, 970, 979
 sugar refinery, pests of, 408
 sugarcane planthopper, *see* *Perkinsiella sacharicida*
Suhpalacsa, 542; *S. dietrichiae* (Brauer), 542
 Suhpalacsiini, 542
 Sukacheva, I. D., 166, 172, 174
 sulcus, 35
 Sullivan, D. J., 928
 Sumlin, W. D., 614
 Summers, K. M., 241, 248
 sunflowers, pests of, 108, 914
Supella longipalpa (Fabricius), 324, 325
 superfamily, 109
 superlinguae, 8, 147
 superorganism, 101
 superparasitism, 690, 928
 supertribe, 109
 supra-anal plate, 19
Swagina, 752, 753
 surfactants, 554, 616, 623
Surijokocixius, 170
 surstyles, of Diptera, 726, 727
Sus scrofa, *see* mammals: pig
 Sutcliffe, A. J., 193
 Sutcliffe, J. F., 358
 Suter, P. J., 284, 287, 292, 293
 Sutherst, R. W., 183, 246
 Sutton, S. L., 111
 suture, *see* sulcus
Suva, 476
 Švácha, P., 558, 672
 Švihla, V., 668
 swarms, 282, 289, 292, 293, 377, 529, 535, 538, 630, 732, 760, 769, 844, 927; *see also* mating flights
 Swedish Scientific Expeditions, 216
 sweepstakes routes of dispersal, 184-5
 Sweet, M. H., 502
 sweet potato, pests of, 680, 858
 Sweetman, H. L., 98
 swifts, *see* Hepialidae
 swordgrass, *see* *Gahnia*
 sycamore, 454
 Sycoecinae, 963
 Sycophaginae, **963**
Sycophila, 962
Sycorax, 739, 747
 Sycoryctinae, **963**, 964
Sycoscapter, 963; *S. australis* (Froggatt), 964
Sylvacoleus sharovi Ponomarenko, 177
Sylvicola, 747; *S. dubius* (Skuse), 719, 720, 728, 739, 747, 748
 Sylvicolidae, *see* Anisopodidae
Symbiocladius, 284, 285
 symbiosis (insects as symbionts): Acarina, 980; bacteria, 57, 58, 59, 439; fungi, 560, 928; micro-organisms, 58-9, 94, 560; Protozoa, 57, 58, 59, 102, 336, 415; yeasts, 58, 439, 539, 560
 symbiosis (insects as symbiotes), 82, 84, 93, 560, 963, 985, 987
Symbittacus, 698, 702
Symmetrischema plaesiosema (Turner), 869
 Symmoccidae, 832, 859
 Symmons, P. M., 391
Symonicoccus, 463
 Sympecmatinae, 305, **307**
 Symptetrinae, **310**
 symphiles, *see* inquilines
 Symphiogastra, 565
Symphitoneuria, 787, 798
 Symphrasinae, 538
 Symphyla, 18, 32, 127, 252, 269, 270
Symphylurinus, 271; *S. swani* Womersley, 271
 Symphypleona, 252, 253, 256, 258, **263-4**
 Symphyta, 25, 27, 78, 97, 101, 509, 233, 556, 780, 916-30 *passim*, **931-5**, 938, 939, 944, 945, 948, 949, 965, 968, 979, 987
Sympiesis, 969
 sympleiomorphy, 116, 117
 Sympycninae, **760**
Sympycnus, 760, 761; *S. allectorius* Parent, 761
Synaleurodicus, 432; *S. hakeae* Solomon, 452
Synanthedon, 875; *S. tipuliformis* (Clerck), 877
 synanthropic insects, 367, 961, 965, 968
 synapomorphy, 116, 117
Syncarpia (BOT.), 877
 Synchronidae, 565
 Syndesinae, **626**
Syndesus, 563, 626; *S. cornutus* (Fabricius), 566, 626
 Syndicini, 621
Syndicus, 621
Syndipnomyia auricincta Kertész, Pl. 6
Syneches, 761
Synechodes, 876
Synemon, 874, 875, 888; *S. laeta* Walker, 871; *S. magnifica* Strand, 874, Pl. 8
Synercticus, 668, 669
 Synetinae, 672
Syngaster, 948
Synlestes, 307; *S. weyersii* Selys, 295, 298, 299, 300, 307; *S. weyersii tillyardi* Fraser, 20, Pl. 1
 Synlestidae, 295, 298, 299, 300, 304, 305, 306, **307**, Pl. 1
 Synlestinae, 306, **307**
 Synneuridae, 734
Synomaloptila longipes (Martynov), 167
 Synomaloptilidae, 167, 168
 synonym, 122, 123
Synopeas, 952
 synsterna, 923
 Synteliidae, 564
 synterga, 923

- Syntexis libocedrii* Rohwer, 932
Synthemiopsis, 304, 310
Synthemis, 310; *S. eustalacta* (Burmeister), 298, 302, 309, Pl. 1; *S. macrostigma* Hagen in Selys, 301, 302
 Synthemistinae, 304, 308, **310**
 synthorax, *see* sclerotisation
 Syntominae, *see* Ctenuchinae
Syntonarcha iriastis Meyrick, 889
 Syntonopteridae, 160
Syntormon, 760
Syntretus, 948
 syntype, 122, 123
 Syringogastridae, 734, 770
 Syrphidae, 100, 441, 729-35 *passim*, 752, **763**, 764, 768, 940, 945, 950, 956, 965, 968, 987, Pl. 6
 Syrphinae, 763
 Syrphoidea, 734, **763**, 764, 768
Syrphophagus, 968
Systasis, 965
Systeloderes, 481
 Systellognatha, 314
Systema Entomologiae, 201, 225, 226
Systema Naturae, 121, 200
 systematics, 109-24
Systolosoma, 609
 Systropinae, **759**
Systropus flavoornatus Roberts, 758, Pl. 6
Syzeton, 671; *S. abnormis* (King), 670
Syzetonellus, 671
Syzetoninus, 671
Syzeuctus, 945
 Syzygoniinae, 934
Szekessya, 671
 Szelegiewicz, H., 170, 171
 Szent-Ivany, J. J. H., 284
 Szeptycki, A., 259

 Tabanidae, 196, 218, 219, 227, 718, 719, 728, 732, 734, 752, 753, **754-5**, Pl. 5
 Tabaninae, 754, **755**
 Tabanini, 755
 Tabanoidea, 723, 734, **753-6**
Tabanus, 755
Tachardina, 464
Tachinaephagus, 968
 Tachinidae, 97, 364, 377, 388, 400, 408, 441, 562, 690, 721, 722, 729, 731, 732, 735, 763, 768, 782, **783-4**, 831, 929, 938, 939, 940, 945, 950, 960, 961, 962, 965, Pl. 5
 Tachininae, **784**
 Tachiniscidae, 734, 770
 Tachydromiinae, 759, **760**
Tachyglossus aculeatus (MAMMALIA), 339, 986
 Tachyporinae, **622**
Tachysphex, 991, 993
Tachytes, 991, 993
 tadpoles, *see* Anura
Taenaris, 897
 Taeniapterinae, **771**
 taenidia, 39
Taeniochorista, 702, 704; *T. pallida* Esben-Petersen, 704
Taeniogonalos, 919, 922, 923, 926, 939
 Taeniopterygidae, 314
Taeniosigma, 419
 tagmosis, 4
Taiwanaphis, 442, 456, 948; *T. furcifera* (Carver and Hales), 454; *T. tasmaniae* (Carver and Martyn), 454
 Takagi, S., 464
Talayra, 663; *T. elongata* (Macleay), 661
 Taldycupedidae, 176
 Taleporiinae, **848**
Talia pitonga Otte and Alexander, 385
 Tamaliinae, 455
Tamarindus indica (BOT.), 876
Tamarix (BOT.), 680
Tambinia venusta (Kirkaldy), 478
 Tambiniini, 478
 T'an, C.-C., 167

 Tanaoceridae, 378
 Tanaostigmatidae, 930, 957, 958, 966, **967**
Tanaostigmodes, 966, 967
Tanjostigmella verna Neboiss, 799, 806, 812, 815
 Tanner, V. M., 553
 tanning, *see* sclerotisation
 tannins, 58, 78, 113
Tanychaeta, 872
Tanychilus striatus Newman, 666
Tanycnema anomala (Turner), 882, 883
 Tanyderidae, 724, 727, 734, 736, 737, 740, **742**, 743
 Tanyderomorpha, 734, **742**
Tanylypa, 574, 665, 667; *T. morio* Pascoe, 667
 Tanypezidae, 734, 767, **770**, 772
 Tanypodinae, **746**
Tanytarsus, 746
Tapeigaster, 772; *T. annulipes* Macquart, 773
 Tapeigastrini, 772
 tapeworms, *see* Cestoda
Taphozous (MAMMALIA), 490
Taphropestes, 653
Tapinoma melanocephalum (Fabricius), 987
Taractocera, 895
Taraxacum officinale (BOT.), 956
 Tardigrada (tardigrades), 146, 257
 Targaremini, 501
 tarsomeres, 11
 Tarsosteninae, **646**
Tarsostenus univittatus (Rossi), 646
 tarsungulus, 558
 tarsus, 11, 145; pseudotetramerous, 547; pseudotrimerous, 547
 Tartessinae, **471**
Tarwinia australis Jell and Duncan, 174
 Tasch, P., 144, 170, 178
Taschorema, 810; *T. asmanum* Mosely, 802; *T. evansi* Mosely, 791
Tascuna, 796; *T. ignota* Neboiss, 788, 799, 804, 812, 815
Tasiagma ciliata Neboiss, 799
Tasimia, 812, 815; *T. palpata* Mosely, 804
 Tasimiidae, 793, 795, 796, 798, 799, 804, **807**, 812, 815
Tasiocera, 740, 742
Taskiria austera Neboiss, 788
Tasmanentulus, 268; *T. tasmanicus* (Tuxen), 268
 Tasmanian Field Naturalists' Club, 207, 216
 Tasmanian Government Entomologist, 207
 Tasmanian Museum, 216
Tasmanicola, 442
Tasmanocerca, 318
Tasmanocoenis, 283, 284, 288, 290, 293; *T. tillyardi* (Lestage), 284, 293; *T. tonnoiri* Lestage, 293
Tasmanoperla, 315, 317
Tasmanophlebia, 188, 284, 287, 288-9, 291, 293; *T. lacuscoerulei* Tillyard, 283, 288, 289; *T. lacustris* Tillyard, 288, 289; *T. nigrescens* Tillyard, 288
Tasmanthrus angustipennis Mosely, 800
 Tasmosalpinginae, **651**
Tasmosalpingus, 572, 648, 651
 taste, sense of, 45-7
Tathra, 386
 Tatum, E. L., 248
Taxeotis, 889, 890
 taxon, 109, 121
 taxonomy, 109-24, 242-4, 247; taxonomic categories, 109; taxonomic distance, 115; taxonomic impediment, 110; taxonomic literature, 111-12; taxonomic species, 112; *see also* numerical taxonomy; phenetics
 Taylor, F. B., 190
 Taylor, F. H., 199, 218
 Taylor, G. S., 450
 Taylor, K. L., 429, 435, 448, 449, 450, 673, 678, 932, 938, 956
 Taylor, L. R., 103, 104, 105
 Taylor, R. A. J., 103, 104
 Taylor, R. W., 109, 110, 111, 114, 243, 341, 916, 980, 989
 Tchirkovaeidae, 158
Tebenna, 875, 888; *T. micalis* (Mann), 877
Techmessa, 669
Technomyrmex, 982, 989; *T. albipes* (Smith), 987
 Tectocorinae, **508**
Tectocoris diophthalmus (Thunberg), 101, 437, 438, 440, 508, Pl. 3
 tectum, 552
Tegea atropicta Stål, 496
 Tegeinae, 495, **496**
 tegmen (aedeagus), 551
 tegmen (wing), 12, 49, 166, 321, 349, 361, 373, 395
 tegula, 13
 tegumen, of Lepidoptera, 822
Teia, 908, 913; *T. anartoides* Walker, 908; *T. athlophora* (Turner), 907, 908
Teinobasis rufithorax (Selys), 306
 Teleasinae, 953, **954**
 Teleasini, 954
Telecrates, 862; *T. laetiorella* (Walker), 862, Pl. 7
 Telegeusidae, 564
 Telengaiinae, 947
 Telenominae, 953, **954**
Telenomus, 954
Teleogryllus, 386; *T. commodus* (Walker), 113, 370, 378, 384, 385; *T. oceanicus* (Le Guillou), 113
Teleonomia scrupulosa Stål, 494
Telephlebia, 309; *T. brevicauda* Tillyard, 301; *T. godeffroyi* Selys, Pl. 1
Telicota, 895
Teljapyx, 271
 Tellervinae, **897**
Tellervo, 897; *T. zoilus* (Fabricius), 897
Telmatogeton, 744
 Telmatogetoninae, **746**
Telmatoscopus, 747
 Teloganodinae, **293**
 telopodite, 18, 146
Telostegus, 975
Telostylinus angusticollis (Enderlein), 771, 772
 telson plates, 15
Temelucha, 945
Temeritas, 264
Temnellytra, 327; *T. truncata* (Brunner), 327
Temnopalpus, 669; *T. bicolor* Blackburn, 669
Temnopectron, 630
 Temperate zone, 196
 temperature, adaptations to, 68-9
 tempora (temples), 650
Tenagogerris, 485
Tenagogonus, 485
 Tench, W., 226
 Tendipedidae, *see* Chironomidae
Tenebrio, 59; *T. molitor* Linnaeus, 667; *T. obscurus* Fabricius, 667
 Tenebrionidae, 40, 183, 339, 543, 547, 551, 552, 554, 557-66 *passim*, 574, 575, 577, 581, 582, 586, 598-604 *passim*, 660, 662, **665-7**, 945, 977, Pl. 4, Pl. 5
 Tenebrioninae, 662, 665, 666, **667**, Pl. 4
 Tenebrionini, 667
 Tenebrionoidea, 547, 550, 552, 560, 565, 649, **660-72**
Tenebroides mauritanicus (Linnaeus), 645
 teneral period, 67
Tenodera, 356; *T. australasiae* (Leach), 350, 352, 356, Pl. 2
Tentegia, 682-3
 Tenthredinidae, 28, 49, 175, 509, 919, 927, 929, 930, 932, 933, **934**, 973
 Tenthredinoidea, 175, 930, 931, 932, **934-5**
 tentorial arms, 6
 tentorial pits, 7
 tentorial rods, 729
 tentorium, 5-6, 35
 Tephritidae, 54, 208, 212, 218, 251, 690, 694, 724, 726, 732, 734, 765, 769, 770, **771**,

- 778, 948, 950, 961
Tephritis, 771
 Tephritoidea, 727, 734, **770-1**
 Tepper, J. G. O., 199, 207, 210
 Terata, K., 362
 Teratembidae, 408
Teratomyza, 777
 Teratomyzidae, 727, 734, 767, 776, **777**, 780
Teratoptera, 777
 terebra, 298, 924
 terebrant Hymenoptera, 920, 921, 924, 925, 928, 935, 936, 938, 957
 Terebrantia (Thysanoptera), 19, 169, 510, 511, 512, 513, **514-15**
 Teredinae, 603, 655, **656**, 659
Teredolaemus, 580, 656; *T. leae* (Grouvelle), 655, 659
 Teretriini, 618
 tergum, 5; tergite, 5
 Termatophylini, 493
Termatophyloides, 493
 termen, of wing, 12
Termes, 337, 340, 341, 345, 346, 347
Termessa, 910, 912; *T. nivosa* (Walker), 910
 terminalia, 17-23
 Termitaphididae, 430, 440, 443, 446, **497-8**
Termitaradus australiensis (Mjöberg), 497, 498
Termite Abstracts, 330
 termites, *see* Isoptera
 Termitidae, 59, 331-43 *passim*, **345-7**, 950
 Termitinae, 340, **345**
Termitoecia, 561
 termitophiles, *see* inquilines
Termitorixa termitoxena (Bezzi), 771
 Termopsidae, 332, 333, 334, 337-43 *passim*, **344**
 terpenoid, 50
Terradessus caecus Watts, 616
 terranes, 191
 territoriality, 251, 303, 351, 353, 770, 927, 991
 Tersilochinae, **945**
 Tertiary Period, 141, 142, 144; in Australia, 179, 194-5
 Tessaratomidae, 440, 442, 444, **507-8**, Pl. 3
 test (lerp), *see* scale
Testajapyx, 128, 154; *T. thomasi* Kukulová-Peck, 154
 testis, 62
Testudorea, 649
 Tetanoceridae, *see* Sciomyzidae
Tethina, 779; *T. nigriseta* Malloch, 779
 Tethinidae, 735, 766, **779**
 Tetracampidae, 930, 957, 958, 959, **968**
 Tetracampinae, **968**
 Tetracneminae, **967**
Tetracnemus, 967
 Tetragonoderini, 613
Tetramesa, 962
Tetramorium, 989; *T. pacificum* Mayr, 982
 Tetranychidae (ACARINA), 442
Tetranychus urticae (ACARINA), 513, 658
 Tetraphaleridae, 607
Tetraphalerus, 607
Tetraponera, 985, 989; *T. laeviceps* (Smith), 988
 Tetrastichinae, **969**
Tetrastichus, 969
Tetrathemis, 310
 Tetrathemistinae, **310**
 Tetratomidae, 563, 565
 Tetrigidae, 378, 387, **392**, 393
 Tetrigininae, 387
 Tetrigoidea, 378, 387, **391-2**
Tetrix, 392
Tetrodontophora, 256
 Tettavidae, 164
Tettigarcta, 433, 464, 465; *T. crinita* Distant, 465, 466; *T. tomentosa* White, 432, 465, 466
 Tettigarctidae, 170, 431, 432, 435, 442, 443, **465**, 466
 Tettigometridae, 443, 690, 694
 Tettigoniidae, 44, 45, 49, 113, 181, 250-1, 370-9 *passim*, **382-4**, 688, 690, 694, 954, 970, 991, Pl. 2
 Tettigoniinae, 182, 372, 378, 379, **382**, 383
 Tettigonioidae, 44, 49, 64, 164, 378, 379, **382-4**
Teuchothrips, 512, 515
Thaicoris, 499
Thalaina, 889; *T. selenaea* (Doubleday), 890
Thalarcha, 910; *T. jocularis* (Rosenstock), 907, 910
Thallis, 654; *T. compta* Erichson, 655
Thalycrodes, 649
Thanasimus formicarius (Linnaeus), 563
Thanatodictya, 478; *T. praeferrata* (Distant), 475, 477
 thanatosis, 92, 353, 398, 538, 636, 658, 830
 Thaneroclerinae, 582, 594, 645, **646**
Thaneroclerus buquet (Lefèvre), 646
Tharra, 471
Thaumaglossa nigricans (Macleay), 642
 Thaumaleidae, 734, 736, 738, 740, 742, 745, **747**
 Thaumastellidae, 435, 444
 Thaumastocoridae, 434, 442, 443, 490, **494**
 Thaumastocorinae, **494**
Thaumastocoris australicus (Kirkaldy), 490
 Thaumastocoroidea, 443, 445, 446, **494**
Thaumasura, 919, 963
 Thaumatomyrinae, **971**
Thaumatodryinus, 971
Thaumatoperla, 313, 315
 Thaumatomyrinae, 962
 Thaumetopoeidae, 830, 832, 905, **906-8**, 913
 Thayer, M. K., 544, 618, 622
 Thearle, M. J., 214
 theca, of Diptera, 720
 Theclinae, **899**
Thecophora, 768
 Theischinger, G., 182, 184, 196, 307-19 *passim*, 516, 520, 747
Thelyphassa mira (Lea), 667
 thelytoky, 377, 440, 452, 513, 927
Thema, 860; *T. chlorochyta* (Meyrick), 860, 861
Themognatha, 632
Theocolax elegans (Westwood), 965
Theretra, 904
Thereutis, 851, 852
 Therevidae, 721, 729, 734, 752, **756**, 757, 758, Pl. 6
Therioaphis trifolii (Monell) f. maculata, 108, 455, 456
Theristria, 538
Thermobia, 130; *T. domestica* (Packard), *see* *Lepismodes inquilinus*
 thermoreception, 7, 47
Therodoxus, 427
Theronia, 944
 Thespininae, 353
Thevenemyia, 759
 Thiele, K., 117, 196
 Thienemann, A., 113
 thigmotaxis, 363
Thiotricha, 869; *T. parthenica* Meyrick, 869
 thistles, 877
Thodelmus, 496
Tholymis, 310; *T. tillarga* (Fabricius), 310
 Thomas, M. C., 559, 624, 651, 668
 Thomas, P. A., 246
 Thomisidae (ARANEAE), 90, 975
 Thompson, E. H., 207
 Thompson, F. C., 112
 Thompson, R. T., 653
 Thompson, W. P., 245
 Thomson, J. A., 241
 Thomson, J. M., 197
Thopha, 467
Thoracanthoides, 966
Thoracophorus, 623
 thorax, 4, 9-11; thoracic spiracles, 10
 Thorictinae, 642
 Thorndyke, E. L., 249
 Thornhill, R., 376, 696, 700
 Thornton, I. W. B., 182, 187, 250, 415, 416, 419, 420
 Thoronini, 954
 Thorp, R. W., 993, 998
 Thorpe, R. S., 115
 Thorpe, W. H., 74, 249, 434
Thrasorus, 955, 956
Thraulophlebia, 293
Thraulus, 293
 thread-wings, *see* Nemopteridae
 3-butylactahydro-5-methylindolizine, *see* butylactahydro-5-methylindolizine
 threonine, 58
 Thripidae, 169, 511, 512, 513, 514, **515**
 Thripinae, **515**
Thripoctenus, *see* *Ceraninus*
 trrips, *see* Thysanoptera
Thrips: *T. australis* (Bagnall), 511, 514, 515; *T. hawaiiensis* (Morgan), 513; *T. imaginis* Bagnall, 246, 512, 513, 515; *T. simplex* (Morison), 513; *T. tabaci* Lindeman, 513
 Throscidae, 117, 550, 559, 564, 573, 589, 590, **637**, 638
Thryptomene (BOT.), 493
Thryptomeneoris officieri Gross, 509
 Thyatrinae, **892**
 Thylacellinae, **417**
 thylacium, 971
 Thylacosterninae, **638**
Thylotrias, 562, 568; *T. contractus* Motschulsky, 642
 Thylotriinae, **642**
 Thymbrini, 469, 470
 Thynninae, 562, 921, 926, 927, 930, 973, **977-8**, 982, Pl. 5
Thyrassia, 877; *T. inconcinna* Swinhoe, 877
Thyregis, 628
Thyreocephalus chalcopterus (Erichson), 623
 Thyreocoridae, 440, 444
 Thyreophoridae, *see* Piophilidae
 Thyretidae, 832, 905
Thyreus, 993, 999; *T. nitidulus* (Fabricius), 997
Thyridectis, 878
 thyridial cell, of Trichoptera, 789
 Thyrididae, 832, 884, **885-6**
 Thyridoidea, 832, 833, 846, **885-6**
Thysanoplusia orichalcea (Fabricius), 914
 Thysanoptera, 19, 25, 27, 31, 77, 78, 81, 82, 90, 92-3, 98, 101, 133, 135, **136**, 142, 167, 168, **169**, 182, 227, 236, 415, 493, **510-15**, 969, 991
 Thysanura, 19, 20, 21, 27, 63, 77, 125-9 *passim*, **130**, 131, 132, 133, 142-54 *passim*, **155-6**, 229, 272, 273, **275-8**, 339, 685, 692, 987
 tibia, 11, 145
 Tibicininae, 465, **467**
 tibiotarsus, 253, 558
 ticks, parasites of, 97, 968
 Tiegs, O. W., 4, 199, 212, 219
 tiger beetles, *see* Cicindellinae
 tiger moths, *see* Arctiinae
 Tikhomirova, A. L., 178
 Tillinae, **646**
 Tillyard, Patricia, 209
 Tillyard, R. J., xiii, 14, 15, 16, 17, 42, 143, 144, 172, 178, 179, 181, 190, 199, 209, 214, 219, 236-7, 269, 280, 287, 297, 405, 410, 516, 519, 529, 649
Timaea, 850
 Timarchini, 678
 timber, pests of, 285, 340, 342-7, 415, 562, 608, 642, 644, 668, 673, 683, 794, 860
Timema, 400
 Timematidae, 400
 Timemidae, *see* Timematidae
 Timeminae, *see* Timematidae
 Timpe, L. C., 249
Timulla, 977
 Timyridae, *see* Lecithoceridae

- Tinagma*, 850, 852; *T. leucanthes* Meyrick, 852, 856
 Tinamidae (AVES), 424
 Tindale, N. B., 174, 178, 353, 829, 841, 870
 Tindall, A. R., 320
Tinea, 850; *T. columbariella* Wocke, 850; *T. corynephora* Turner, 850, 853; *T. dubiella* Stainton, 850; '*T.*' *monophthalma* Meyrick, 820; *T. translucens* Meyrick, 850
 Tineidae, 818, 820, 821, 823, 825, 829, 831, 832, 847, **848-51**, 852, 853, 855, 961
 Tineinae, **850**
Tineodes, 883; *T. adactylalis* Guenée, 882, 883
 Tineodidae, 832, 882, **883**, 888
 Tineoidea, 820, 832, 833, 846, **847-54**, 855
Tineola, 825, 830; *T. bisselliella* (Hummel), 850
 Tingidae, 429, 430, 433, 435, 439, 441, 442, 443, **493-4**, 499
 Tinginae, **493**
 Tingoidea, 443, 445, 446, **493-4**
Tinissa, 850
 Tinthiini, 877
Tipanaea patulella Walker, 887
Tiphia, 977, 978
 Tiphidae, 562, 664, 921, 926, 927, 930, 931, 974, **977-8**, 979, Pl. 5
 Tiphinae, **977**, 978
Tiphodytes, 954
Tipula, 741
 Tipulidae, 30, 75, 219, 696, 719-38 *passim*, **740-2**, 938, Pl. 5
 Tipulinae, **741**
 Tipulomorpha, 721, 733, 735, **740-2**
Tiracerus, 624; *T. foveicollis* Raffray, 621
Tiracola plagiata (Walker), 914
Tirathaba, 887
 Tischeriidae, 832, 833
 Tischerioidea, 819, 823, 832, 833
Tisiphone, 214; *T. abeona* (Donovan), 829, 894, 897
Titaena, 665
 Titaenini, 563, 667
Titanoceros, 829, 831; *T. thermoptera* (Lower), 887
Titanolabis, 366; *T. colossea* (Dohrn), 366-7
 Titanoptera, 142, **165**, 178
Tivia, 328
 Tjeder, B., 527
Tmesidera rufipennis Westwood, Pl. 6
 toad bugs, *see* Gelastocoridae
 tobacco, pests of, 325, 493, 562, 869, 914
 Tobias, V. I., 945
 Tobin, P., 294
 Todd, E. L., 488
Todima, 664
Tolgadia, 391
 tomatoes, pests of, 508, 513, 658, 770, 869, 914
Tomia, *see* *Ceratomerus*
Tomiospyllidium iljinskiense Bekker-Migdisova, 169
 Tomlinson, A. I., 107
 Tomoceridae, 129, 258, 259, 262, **263**
Tomocerus, 256
Tomoderus, 671
 Tömösvary organs, 129
Tomosvaryella, 763
Tomoxioda, 663
Tomyris, 678
Tonica, 864; *T. effractella* (Snellen), 864, 866
 Tonnoir, A. L., 209-10, 743, 751, 762
Tonnoiria, 468
Tonnoiromyia, 742
 Toraminae, 654
Torbia viridissima (Brunner), 370
 torma, 8
 tomus, 12
 Torres, L. V. de, 225
 Torresian zone, 196
 Torridincolidae, 564, 608
 tortoise beetles, *see* Cassidini
 Tortricidae, 54, 182, 251, 819, 823, 826, 827, 829, 831, 832, 870, 871, 872, **873-4**, 939, 961, 962, 969
 Tortricinae, **873**
 Tortricini, 873
 Tortricoidea, 820, 832, 833, 847, 870, 872, **873-4**
 torulus, 7
 torus, *see* pedicel
 Torymidae, 930, 957, 959, 960, **962**, 963, 965, 967
 Toryminae, 960, **962**
Torymoides, 962
Torymus, 962
 touch, sense of, 43
 Townes, H., 175, 950, 952, 974, 976
 Townes, M., 952
 Towns, D. R., 283, 284, 793
 toxic secretions, 56, 90-2; of Coccinellidae, 658; of Hemiptera, 442; of Hymenoptera, 233; of Isoptera, 333; *see also* venom
 Toxicini, 665, 667
Toxidia, 893; *T. doubledayi* Felder, 893
 Toxoderinae, 353
 Toxophorinae, **759**
Toxoptera, 435, 454; *T. citricidus* (Kirkaldy), 455
Toxorhynchites, 218, 744; *T. speciosus* (Skuse), 218
 Toxorhynchitinae, **744**
 Toxorhynchitini, 90
Toxotes (OSTEICHTHYES), 88, 89
 Toxotidae (OSTEICHTHYES), 88
 trabes, 552
Trabutina manipara (Ehrenberg), 441
 tracheae, 5, 39; of wings, 14-15
 tracheal gills, *see* gills
 tracheal system, 39, 49; ventilation, 39, 41-2; *see also* spiracles; spiracular arrangement
 Tracheata, 127, 143, 145, 146, 147
 Trachelostenidae, 565
 tracheoles, 39
Tracheomyia, 96; *T. macropi* (Froggatt), 96, 785
 trachoma, 230
Trachydosaurus rugosus (REPTILIA), 82
 Trachyinae, **632**
Trachymela, 678; *T. tincticollis* (Blackburn), 678
 Trachypachidae, 178, 550, 564, 609
Trachypachus, 609
 Trachypetinae, 947, **949**
Trachypetus, 949
Trachys, 632
 Trachyscelini, 667
Trachyscelis, 665
 tracks, in biogeography, 187
 trail-marking chemicals, 55, 336, 925, 929, 986
 Traill, R. C., 210
Tramea, *see* *Trapezostigma*
Tranes, 682
trans-8-dodecenylyl acetate, *see* dodecenylyl acetate
trans-2-hexenal, *see* hexenal
trans-2-octenal, *see* octenal
 Transdryiniinae, 971, **972**
 transmission of infection, *see* vectors
 transtilla, of Lepidoptera, 822
Trapezites, 893, 896; *T. eliena* Hewitson, 890, 893
 Trapezitinae, **893**
Trapezostigma, 310
 trapping (by insects), 91-2, 541, 751, 793
Trathala, 945
 Traub, R., 182, 705
 Traugott-Olsen, E., 865
 Traver, J. R., 280, 285
 Traynier, R. M. M., 249
 Treat, A. E., 831
 Trechini, 610, 612, 614
Trechodes bipartitus (Macleay), 610
 tree crickets, *see* Oecanthinae
 tree holes, 303, 307, 619, 621, 624, 744, 746, 755; *see also* phytotelmata
 treehoppers, *see* Membracidae
 trehalose, 58, 59, 61
 Treherne, J. E., 624
 Trematoda (trematodes), 284, 304, 314
 Tremecinae, 932
 Trepobatinae, **484**
Tretocoris, 497
 Tretothoracidae, *see* Salpingidae
Tretothorax, 561, 577, 660; *T. cleistostoma* Lea, 669, 670
Triacanthella, 261
Trianenodes, 795; *T. volda* Mosely, 815
Trialeurodes: *T. abutilonea* (Haldeman), 452; *T. vaporariorum* (Westwood), 442, 452
Triamescaptor, 386
 Triaplidae, 178
Triarthria, 364
Triaspis, 948
Triassagron, 162
 Triassic Period, 141, 142, 144; in Australia, 178-9, 194
Triassoaphis, 170; *T. cubitus* Evans, 169
Triassoblatta, 166, 179
 Triassochoristidae, 172
 Triassocoridae, 171
Triassomachilis, 155
 Triassomanteidae, 164
Triatoma leopoldi Schouteden, 496
 Triatominae, 439, 442, 488, 494, 495, **496**
 tribe, 109
 Tribe, G. D., 678
 Tribeloccephalinae, 495, **496**
 Triboliini, 667
Tribolium: *T. castaneum* (Herbst), 667; *T. confusum* Jacquelin du Val, 667
Tribulus (BOT.), 904
Trichacis, 952
Trichalus, 640
Trichanacca, 671
Tricharaea, 782; *T. brevicornis* (Wiedemann), 733, 782
Trichelodes, 642; *T. delicatula* Carter, 642
 Trichelodini, 563
Trichilogaster, 964, 965
Trichiocercus, 908; *T. sparshalli* (Curtis), 908
Trichiohelcon, 948
 trichobothria, 269, 413, 435, 496, 517, 522, 923
Trichocanace, 779
Trichocera, 726, 742; *T. annulata* Meigen, 737, 742
 Trichoceridae, 725, 729, 733, 735, 736, 737, 740, **742**
Trichocolletes, 994, 995
Trichodectes canis (Degeer), 425, 427
 Trichodectidae, 422, 426, **427**
Trichoduchus biermani Dammerman, 478
Trichogramma, 969, 970
 Trichogrammatidae, 441, 519, 921, 925, 931, 935, 957, **969-70**
 Trichogrammatinae, **969**
Trichogrammatoidea, 969
Tricholepidion, 125, 130; *T. gertschi* Wygodzinsky, 130
Tricholepisma, *see* *Lepisma*
Tricholioproctia, *see* *Sarcorohdendorfia*
 Tricholomataceae (FUNGI), 665
Trichoma, 525
 trichomes, 91, 496, 560, 618, 624
Trichomma, 945
 Trichomyces (FUNGI), 284, 314
Trichomyia, 747
Trichophthalma, 755; *T. laetilinea* Walker, 756
Trichoplusia ni (Hübner), 47
Trichopria, 950
 Trichopseniini, 623
Trichopsidea oestracea Westwood, 377, 755
 Trichopsocidae, 416, 418, **419**
 Trichoptera, 12, 14, 25, 27, 28, 53, 67, 72-7 *passim*, 91, 133, 139, **140**, 142, 172, 174,

- 178, 179, 195, 209, 229, 314, 518, 556, **787-816**, 817, 819
Trichorhachis, 933, 934
Trichosalpingus, 668; *T. brunneus* Blackburn, 666
trichosors, 527
Trichosurus vulpecula (MAMMALIA), 88
Trichoxenia, 961
Tricoleidae, 178
Tricondyla, 546, 563; *T. aptera* (Olivier), 613
Tricoryna, 966
Tricorythidae, 280, 282, 285
Tricrosbia, 170
Trictena, 223, 829, 841; *T. atripalpis* (Walker), 223
Trictenotomidae, 565
Tridactylidae, 164, 374, 378, 387, **392-3**, 694
Tridactylinae, 387, **393**
Tridactyloidea, 164, 371, 378, 387, **392-3**
Tridactylophaginae, **694**
Tridactylus, 392, 393, 694; *T. australicus* Mjöberg, 393; *T. mutus mutus* Tindale, 374
trifurcata, 912
triglyceride, 60
Trigona, 224, 994, 1000; *T. (Plebeia)*, 1000; *T. (Tetragona)*, 1000; *T. exsingtoni* Cockerell, 997
Trigonalylidae, 97, 732, 917, 918, 919, 922-30
passim, 936, **938-9**
Trigonalylloidea, 97, 930, 935, 937, **938-9**
Trigonidiinae, 379, 385, **386**
Trigonistis, 912
Trigonocytara, 820, 848, 854; *T. clandestina* (Turner), 845, 848
Trigonodera, 664; *T. marmorata* (Macleay), 663
Trigonopleurus, 637
Trigonopterygidae, 378
Trigonopterygoidea, 378
Trigonotarbi, 143
Trigonotarsus rugosus (Boisduval), 557, 681, 683
Trigonotylus doddi (Distant), 491
Trigonura euthyrrhini (Dodd), 961
Trilaccus, 493; *T. nigroruber* Horváth, 491
Trilobita, 145, 146
Trimenoponidae, 426, 427
Timorus, 953, 954
Trinemura, 277, 278; *T. anemone* Smith, 278; *T. excelsa* Silvestri, 277, 278; *T. norfolkensis* Smith, 278; *T. novaeollandiae* Silvestri, 278; *T. russendenensis* (Smith and Shipp), 278
Trinodinae, **642**
trinomen, 122
Trinotoperla, 313, 318
Triodia (BOT.), 404
triommatidion, of Aphidoidea, 452
Trioxys, 948
Trioxa, 450; *T. eugeniae* Froggatt, 432
Triozidae, 432, 443, 448, 449, **450**
Triozocera, 693; *T. papuana* Kogan and Oliveria, 693
Triozocerinae, 685, 692, **693**
Triplacinae, 579, **654**
Triplectides, 793; *T. australis* Navás, 800, 808; *T. similis* Mosely, 788; *T. truncatus* Neboiss, 808
Triplectidinae, 792, 794, 813, **816**
Triplexa, 798, 816
Triplochrysa, 539
Tripteroides, 88
Trisciloa ferruginea (Fabricius), 979
Trisecus, 499
Trisopsis, 719
Trissolcus, 953, 954; *T. basalis* (Wollaston), 233, 509, 954
Tristania (BOT.), 935, 994
Tristaria, 642
Triteleia, 954
Trithemistinae, **310**
tritocephalon, 4
tritocerebrum, 42
triungulins, 97, 98, 538, 556, 562, 631, 651, 656, 664, 668, 686-7, 794
Trixagidae, *see* Throscidae
Trixagus, 637; *T. dermestoides* (Linnaeus), 637
Trixoscelididae, *see* Heleomyzidae
trochantellus, 920
trochanter, 11, 145
trochantin, 11
Trochoides, 580; *T. desjardinsi* Guérin-Méneville, 658
Trocnadini, 471
Troctomorpha, 416, **417-18**
Troctopsocidae, 416
Trogidae, 559, 564, 566, 568, 588, 600, 626, **627**
Trogiidae, 168, 412, 416, **417**
Trogiomorpha, **416-17**
trogllobites, 71, 323, 560, 614
Troglolattrella: *T. chapmani* Roth, 323; *T. nullarborensis* Mackerras, 71, 72, 323
trogliphores, 71-2; *see also* cave-frequenting insects
troglaxene, 72
Trogodendron fasciculatum (Schreibers), 646
Trogoderma, 642; *T. granarium* Everts, 642
Trogossita virescens (Fabricius), 563
Trogossitidae, 178, 553, 561, 563, 564, 566, 571, 572, 576, 584, 588, 598, 644, **645**, 646, 647
Trogossitinae, 572, 584, 598, **645**, 646
Trogosylon, 642
Troides: *T. priamus* (Linnaeus), 896; *T. richmondia* (Gray), 896
Troidini, 895, 896
Trombiculidae (ACARINA), 207
trophallaxis, 70, 102, 336, 339, 700, 971, 985
trophic eggs, 929, 983, 985
trophobiosis, 441
trophocytes, 59-60, 62, 63
Tropical zone, 196
Tropidoderinae, 396, 400, **401-2**
Tropidoderus childrenii (Gray), 397, 398
Tropiduchidae, 443, 474, 475, 476, **478**
Tropiduchini, 478
Tropimeridini, 961
Tropimeris, 961
Trox, 625; *T. scaber* (Linnaeus), 627
Trueman, J. W. H., 149
trunk, *see* alitrunk
Trupanea, 771
Trupaneidae, *see* Tephritidae
Truswell, E. M., 181, 193, 194
Trybliographa, 956
Trymalitis optima Meyrick, 873
Tryon, H., 199, 206-13 *passim*, 218
Tryonicinae, 325, 326, **327**
Tryonicus, 325, 327
Trypaeidae, *see* Tephritidae
Trypanosoma lewisi (PROTOZOA), 709
trypanosomiasis, 442, 496, 732, 755
Trypeticini, 618
Trypeticus, 563, 618
Trypetidae, *see* Tephritidae
Trypeteridini, 478
Tryphoninae, 928, 943, **944**
Trypoxylini, 990, 991
Trypoxylon, 991, 992
tryptophan, 58, 248
Tschinkel, W. R., 660, 667
tsetse fly, *see* *Glossina*
Tshekardocoleidae, 176, 177
Tshekardoperlidae, 163
Tsuga (BOT.), 456
tube-inhabiting larvae, 731, 744, 750, 801, 803, 860; calcareous, 438, 467; *see also* case-making larvae
Tubificidae (OLIGOCHAETA), 615
Tublitz, N. J., 250
Tubulifera, 510, 511, 512, **514-15**
Tuck, K. R., 194, 837, 873
tularemia (*Francisella*), 709
Tullbergia, 260, 261
Tullberginae, **261**
Tumbunana zone, 196
Tumultitermes, 330, 336, 337, 338, 341, 347; *T. hastilis* (Froggatt), 347; *T. recalvus* (Hill), 335
Tungidae, 709
tunica, 253, 265; lobes, 265
Tunisimyidae, *see* Xenasteiidae
Tuomikoski, R., 749
turbinate eyes, 279, 287, 290
Turdus merula (AVES), 422
Turner, A. J., 199, 214, 239-40, 838, 840, 848, 870, 872, 878, 900, 908
Turner, J. R. G., 239
Turneromyia, 975, 976, Pl. 5
Turrana, 504
tussock moths, *see* Lymantriidae
Tuthill, L. D., 450
Tuxen, S. L., 3, 18, 20, 127, 201, 265, 266, 267, 268, 411, 725
2-methylenebutanol, *see* methylenebutanol
two-spotted mite, *see* *Tetranychus urticae*
Tychepephus, 635
Tychsen, P. H., 241
Tychtodeleptoridae, 176
Tyliidae, *see* Micropezidae
Tylocryptus egenus Horváth, 503
tyloids, 917
tymbal, 50, 464, 465, 909; muscles, 50, 51
tympaan, of Psocoptera, 413
tympaanal organs, *see* auditory organs
Tympanogaster, 560, 619
Tympanophora, 382; *T. pellucida* White, 383
Tympanophorinae, 380, **382**, 383
tympaanum, 43-4, 45
Tyndale-Biscoe, C. H., 249
Tyndale-Biscoe, M., 731
types (in taxonomy), 122-3
Typha (BOT.), 854, 862; *T. angustifolia*, 868
Typhaea stercorea (Linnaeus), 660
Typhlocybinae, 438, 471, **472**
Typhlopidae (REPTILIA), 339, 986
typhoid fever, 230
typhus, 425; murine (*Rickettsia*), 230, 425, 709; scrub, 219
Tyria jacobaeae (Linnaeus), 701
tyrosine, 34, 58, 62
Tyto alba (AVES), 425
Tytthobittacus, 698, 702
Tytthus mundulus (Breddin), 91, 475, 491, 493
Uchidanurinae, 255, 258, **260**
Udeocorini, 501
Uenoidea, 795
Ueshima, N., 437
Uga, 961
Ugvops, 475, 476
Ujházy, E. I. V., 284
Uleiota, 651
Uleiota, 573, 588, 591, 605, **651**, 652
Uleiotini, 651
Ulidiidae, *see* Otitidae
Ulidiinae, **770**
Ulmaceae (BOT.), 898
Ulmer, G., 285, 801
Ulmerochorema, 810; *U. rubiconum* Neboiss, 799
Ulmerophlebia, 292
Uloboridae (ARANEAE), 90
Ulodes, 665
Ulodinae, 563, 575, 604, **665**
Ulomini, 665, 667
Ulopiidae, **469**, 470, 471, 472
Ulopiini, 469
Ulrich, W., 689
ultrasonic sound: perception, 44, 88, 349, 830; production, 88, 830, 889, 909
Umbelliferae (BOT.), 453
Umenocoleidae, 167
Umenocoleus, 167
uncus, of Lepidoptera, 822
underground grass grubs, *see* Hepialidae

- Underwood, B. A., 780
 unguiculus, 253
 unguis, 11, 253
 unguitactor plate, 11
 ungulum, 253
 Uniclaviniae, 685, 692, 693
 Uniramia, 127, 145
 universities: Australian National, 213, 241; of Adelaide, 212, 213; of Melbourne, 204, 208, 210, 212, 213, 219, 241; of Queensland, 212, 213, 216, 218, 241; of Sydney, 203-4, 209, 211, 212, 214, 216, 218, 219, 236, 241
 univoltine insects, 70
 Unzicker, J. D., 794
 Upton, M. S., 2, 111
Uraba lugens Walker, 228, 913
Urabunana, 467
Uracanthus: *U. cryptophagus* Olliff, 562, 673; *U. triangularis* Hope, 673, Pl. 4
Uralia rosendorfi Kukulová-Peck, 157
 Uraniidae, 831, 832, 890, 891, **892-3**, Pl. 8
 Uraniinae, **892-3**
 Uranioidae, 821, 832, 833, 846, 891, **892-3**
 Uredinales (FUNGI), 649, 653, 654; galls, 649, 653, 860
 Uren, M., 202
Uresiphita, 821, 886; *U. ornithopteralis* (Guenée), 889
 uric acid, 60, 254, 323
 urine, 60
Urnisiella rubropunctata Sjöstedt, 390, 391
 urocytes, 60
 Urodidae, 832
 Urodoidea, 832, 833
 Urodontidae, 565
 urogomphi, 73, 556, 559
Urolabida, 506
Uromycladium (FUNGI), 649, 653
Urophorus humeralis (Fabricius), 650
Uroplata, 563, 677
Uropsylla, 711, 714; *U. tasmanica* Rothschild, 708-9, 712, 714
 Urostylidae, 444, 506, **507**
Urothemis aliena Selys, 310
 Urothemistinae, **310**
 Urticaceae (BOT.), 78, 84, 898
 urticating insects, 92, 226, 227, 228, 830-1, 879, 900, 902, 907, 908
 Usher, M. B., 68
 Usinger, R. L., 488, 490, 493, 497, 498
Usingerida, 497
Usingeriella, 481
 uterus, 96, 323, 324, 728, 731, 782
Utetheisa, 909; *U. lotrix* (Cramer), 909; *U. pectinata* Hampson, 909; *U. pulchelloides* Hampson, 909
Utricularia (BOT.), 86-7
 Uvarov, B. P., 377, 389
 Uzelothripidae, 514
Uzucha, 862; *U. humeralis* Walker, 861, 862
- Vaepellinae, 947
 vagility, 184
 vagina, 19, 62
Valanga, 391; *V. irregularis* (Walker), 390, 391
 Valentine, E. W., 971
 Valiakhmedov, B. V., 637
 valine, 58
Valleriella, 485; *V. wilsoni* Drake, 485
 valvae, of Lepidoptera, 822
 valves (valvulae, valvifers), *see* ovipositor
Vandiemennella viatica (Erichson), 243
 Vane-Wright, R. I., 113, 895, 897
Vanellus miles (AVES), 426
Vanessa, 896; *V. itea* (Fabricius), 898; *V. kershawi* (McCoy), 107, 829, 894, 898
 Vanhorniidae, 930, 949
 Vanin, S. A., 680
 vannal area (vannus), 13, 17
Varanus varius (REPTILIA), 339
 Vári, L., 854
 Varley, G. C., 245, 677
Varnia, 535; *V. implexa* (Navás), 173, 175
 Varstney, R. K., 464
 vasa deferentia, 62
 vasiform orifice, of Aleyrodidae, 452
 vectors of infection: of insects, 98; of humans and animals, 104, 108, 112, 211, 212, 217-19, 227, 229-30, 233, 325, 425, 442, 708, 709, 732, 746, 747, 755, 780; of plants, 81, 104, 233-4, 442, 452, 455, 471, 472, 475, 476, 513, 562, 634, 683, 690, 744, 987
 Vedalia ladybird beetle, *see* *Rodalia cardinalis*
 vegetable weevil, *see* *Listroderes difficilis*
 vegetables, pests of, 232-3, 364, 455, 493, 508, 509, 513, 562, 630, 658, 677, 678, 680, 682, 780, 831, 857, 858, 869, 889, 897, 899, 914
 veins, of wings, 15-17
 Veitch, R., 208
 Vejabhongse, N. P., 285
 Veliidae, 75, 432, 435, 440, 443, 482, **483-4**
 Velocipedidae, 443
 vena spuria, of Diptera, 752
 vena triplica, of Neuroptera, 539
 venom, 99, 226, 227, 229, 925, 982; glands, 227; reservoir, 947
Ventilago viminalis (BOT.), 860
 ventral apotome, 7
 ventral tube, 253-4
 ventrites, 550
Venturia canescens (Gravenhorst), 945
Verbeus (BOT.), 914
 Verbenaceae (BOT.), 677, 885
 Verhoef, H. A., 252, 257
 Verhoeff, K. W., 364
Veria, 382
 vermiform: female, 75, 744; larva, 707; *see also* pronymph
 Vermileonidae, 734
 Vermipsyllidae, 95, 709
 verrucules (verrucae), 826
 vertex, 5
 vesica, of aedeagus, 822
Vespa, 980
 Vesperidae, 565, 672
 Vespertilionidae (MAMMALIA), 88, 786
 Vespidae, 46, 91, 99, 175, 228, 229, 538, 664, 690, 695, 757, 831, 917-31 *passim*, 936, 938, 942, 943, 945, 962, 969, 973, 974, 975, 977, **979-80**, 981, Pl. 6
 Vespinae, 92, 926, 938, 979, **980**
 Vespoidea, 916, 924, 929, 931, 936, 937, 938, **974-89**, 993
Vespula, 929, 980; *V. germanica* (Fabricius), 46, 48, 228, 980; *V. vulgaris* (Linnaeus), 228, 980
 vestibulum, of Lepidoptera, 824
 veterinary entomology, 74, 88, 89, 93, 96, 217-19, 425, 427, 428, 709, 732, 746, 754-5, 780, 782, 784-5
 Vevers, H. G., 123
 Vianaididae, 443, 493
 vibrissae, of Diptera, 718
 vicariance biogeography, 112, 187-90
 Vickers, R. A., 251
 Vickery, V. R., 325, 359, 360, 362, 365, 384, 391, 400
 Victorian Field Naturalists' Club, 205, 215
 Victorian Government Entomologist, 198, 205
 Victorian Museum, 204, 208, 215
 Victorian Philosophical Society, 204
 Viedma, M. G. de, 660, 668
 Viggiani, G., 968, 969, 970
Villa, 759
 vinculum, of Lepidoptera, 822
 vinegar fly, *see* *Drosophila melanogaster*
Vingselina brunneri (Bolivar), 392
 Vinson, S. B., 330, 339
 virga, 326, 361
Virgulibracon, 946, 948
 Virkki, N., 556
 viruses: of insects, 98, 257, 408, 562, 831, 929; of plants, 81, 442, 452, 455, 471, 472, 475, 476, 513, 634, 690, 732; of vertebrates, 211, 230, 233, 425, 732, 744, 746, 747
 Visayanocorinae, 495, **496**
 Vishniakova, V. N., 166, 167, 168, 169
 vision: in insects, 47-9, 248, 250, colour, 48; artificial, using insect models, 250
 Vit, S., 625
 Vitaceae (BOT.), 456, 904, 914
 vitamins, 58; vitamin A, 48, 58
 vitellogenesis, 62, 63; vitellogenins, 59
Vitellus, 508
Vitessa, 887
Viteus, *see* *Daktulosphaira*
Vitex trifolia (BOT.), 885
 Vitimiidae, 164
Vitis (BOT.), 457, 877; *V. riparia*, 456-7; *V. rupestris*, 457; *V. vinifera*, 457
 Vives Moreno, A., 865
 viviparity, 96, 324, 328, 415, 419, 440, 453, 458, 490, 513, 684, 728, 782; adenotrophic, 731, 785, 786; pseudoplacental, 362, 364
 Vlamingh, W. de, 225
 Vockeroth, J. R., 763, 780
 Vogt, W. G., 241, 251
 volsellae, 23
 Volterra, V., 245
 vom Rath's organ, 818
 vomer, 395
Vorticella (PROTOZOA), 732
Votocoleus submissus Kukulová, 177
 voucher specimens, 111
 Vrydagh, J.-M., 643
 Vulinec, K., 616
Vulturinus, 471
 vulva, 19
- Waage, J. K., 95, 303
 Wade, V., 465, 467, 468, 474
 Wagner, W. H., 118
 Wagoner, D. E., 251
 waist, of Formicidae, 980
 Waite Agricultural Research Institute (S.A.), 212
Walambianisops, 488
 Walker, A. K., 513, 514, 515, 971
 Walker, A. R., 248
 Walker, E. M., 358
 Walker, K. L., 216, 998
 Walker, M. H., 204
 Walker, T. J., 386
 Walkom, A. B., 205, 214, 215
 wallaby flies, *see* Hippoboscidae
 Wallace, A. R., 180, 182, 184, 188
 Wallace, M. R. H., 256, 257, 259, 264
 Wallbank, B. E., 324
 Waller, J. B., 642
 Waloff, N., 688, 689
 Walsh, G. P., 211
 Walsingham, Lord, 205, 213
 wanderer butterfly, *see* *Danaus plexippus plexippus*
 Ward, P. S., 120, 182
 Ward, R. D., 548, 609
 Wardhaugh, K. G., 70, 71, 241, 391
 warning coloration, *see* coloration
 Warra, 935
Warramaba virgo Key, 388
Warramunga desertorum Rehn, 388
 wasp mimics, 85, 100, 382, 491, 538, 640, 673, 751, 755-9 *passim*, 763, 768, 783, 830, 860, 877, 909, 910, 926, 927, 944, 945, 961, 975-6, 978, Pl. 6
 wasps, *see* Hymenoptera
 Wassell, J. L. H., 683
 Wasserthal, L., 885
 water: absorption, 273, 276, 323, 324, 412, 424, 448, 452, 700; conservation, 59, 34, 39, 63, 257, 345, 543; excretion, 57; retention, 37, 60

- water-boatmen, *see* Corixidae
water dwellers, *see* aquatic insects; marine insects
water mites, *see* Hydracarina
water quality indicators, 285, 304, 314, 530, 794
water scorpions, *see* Nepinae
water striders, *see* Gerridae; Hydrometridae
Waterhouse, D. F., 79, 92, 99, 112, 114, 211, 214, 215, 221, 225, 232, 240, 241, 324, 563, 825, 893, 895
Waterhouse, G. A., 199, 206, 209, 214-15, 218, 219, 829
Waterston's organ, 940
Watling, T., 202
Watrous, L. E., 113, 118
Watson, A., 909
Watson, G. W., 461, 464
Watson, J. A. L., 72, 74, 111, 182, 184, 196, 205, 208, 216, 272, 275, 277, 294, 297, 304, 307, 309, 310, 330-45 *passim*, 520, 561, 623
Watson, L., 243
Watt, J. C., 642, 653, 660, 665, 667, 669, 671, 672
Wattianus, 660; *W. queenslandicus* Kaszab, 661
wattle pigs, *see* *Leptopius*
Watts, C. H. S., 609, 614, 616, 618
wax, 33-4, 38, 61, 63, 254, 437, 440, 450-2, 456-64 *passim*, 474, 478, 479, 535, 656, 999, 1000; glands, 434, 435, 448, 452, 456, 535; layer, of epicuticle, 33; waxy exudate, 92, 497, 658, 660, 879
wax moths, 58; *see also* *Galleria mellonella*; *Achroia grisella*
Way, M. J., 441
weather, effect on insect migration, 105-6, 377
Weaver, J. S., 793, 795
web-spinners, *see* Embioptera
web-worms, *see* Pyralidae
Webb, G. C., 360, 362, 363
Webb, L. J., 193
Webb, M. D., 471, 472
webbed constructions: of Embioptera, 407; of Hymenoptera, 932; of Lepidoptera, 851, 855, 856, 857, 862, 863, 864, 867, 869, 873, 877, 882, 886, 887, 889, 897, 902, 907; of Psocoptera, 415, 419
Weber, H., 452
Webster, A. M., 114
wedge cell, 550
weeds, control of, 231-5 *passim*, 246, 442, 456, 458, 461, 494, 563, 677, 678, 682, 732, 749, 771, 775, 831, 873, 887, 912, 914
Weele, H. W. van der, 516
Weesner, F. M., 330, 339
weevils, *see* Curculionidae
Wegener, A., 188, 190, 191, 211
Weidner, H., 412
Weinreich, E., 624
Weir, T. A., 429, 482, 485, 486, 563, 624
Weismann, A., 237
Weissman, D. B., 380
Weld, L. H., 954, 956
Wells, A., 787, 801
Wells, S., 110
Werdelin, L., 120
Werneckiella equi (Denny), 427
Westernmanniinae, *see* Chloephorinae
Western Australian Department of Agriculture, 207
Western Australian Government Entomologist, 207
Western Australian Museum, 216
Western Australian Surveyor General, 202
Westoby, M., 83
Weston, P. H., 196
Westwood, J. O., 198, 202, 353
Westwoodia, 926, 945
Weygoldt, P., 127
Whalley, P. E. S., 77, 144, 154, 170, 171, 174, 175, 176, 886, 887
Wharton, R., 948
wheat, pests of, 226, 234-5, 393, 563, 630, 749, 865
Wheeler, A., 202
Wheeler, C. H., 104
Wheeler, G. C., 989
Wheeler, J., 989
Wheeler, Q. D., 113, 118, 625, 644
Wheeler, W. C., 131, 135, 137
Whelan, P. I., 563, 624
whip-lash dermatitis, 563, 624
whirligig beetles, *see* Gyrimidae
whistling moths, *see* *Hecatesia*
White, A., 201, 202
White, C. T., 207
White, D., 456
White, G. B., 112
White, I. M., 448
White, J., 199, 202
White, M. J. D., 112, 199, 206, 213, 237, 243, 245, 251, 350, 352, 362, 365, 371, 388, 390, 396, 717
White, R. E., 644
White, R. E. J., 199, 210
White, T. C. R., 80, 448, 449
white grubs, *see* Melolonthinae
White-Haney, Jean, *see* White, R. E. J.
white rice stem borer, *see* *Scirpophaga innotata*
whiteflies, *see* Aleyrodidae
whitefringed weevil, *see* *Graphognathus leucoloma*
whitegrubs, *see* Scarabaeidae
Whitham, T. G., 78
Whitley, G. P., 198, 204, 206
Whittaker, R. H., 79
Whittell, H. M., 208
Whitten, J. M., 15, 728, 730
Whitten, M. J., 198, 236, 238, 241, 245
Whyard, S., 242
Wibmer, G. J., 682
Wichard, W., 174
Wiebes, J. T., 963
Wiegert, R. G., 80
Wiggins, G. B., 793, 794, 795, 803
Wigglesworth, V. B., 12, 57, 152, 241, 425
Wilcox, D., 499
Wilcox, J. A., 678
Wilcox, R. S., 435, 484
Wiley, E. O., 110, 112, 119, 190
Wilkiea (Bot.): *W. huegeliana* 893; *W. macrophylla*, 893
Wilkinson, P., 390
Willard, J. R., 464
Williams, C. B., 105
Williams, D. D., 793
Williams, D. J., 429, 457, 459, 460, 461, 464
Williams, G., 674
Williams, K. L., 241
Williams, M. L., 462, 464
Williams, N. E., 91
Williams, W. D., 793
Williams, W. L., 72
Williams, W. T., 115
Williamsita, 991, 992; *W. smithiensis* Leclercq, Pl. 6
Willis, E. R., 21, 320, 323, 324, 325
Willis, J. H., 81
Willmann, R., 139, 140, 172, 173, 174, 701
Willmund, R., 249
willow, *see* *Salix*
Wilson, A. C., 114
Wilson, E. O., 110, 113, 175, 185, 186, 242, 251, 257, 441, 562, 618, 989
Wilson, F., 232, 458
Wilson, T. H., 511
Wilton-Smith, P. D., 502
window flies, *see* Scenopinidae
window punctures, on elytra, 608
wing, 12-17; articulation, 13-14, 148-9; coupling, 14, 280, 433, 479, 517, 527, 538, 698, 789, 790, 820-1, 899, 921; folding, 550; muscles, 13; tearing, 328
wing venation, 14-17, 149-50; branching, 17; Comstock-Needham system, 14-15, 724; Loew-Williston venation, 724; Schiner venation, 724
Wingia rectiorella (Walker), 860, Pl. 7
Wingstrand, K. G., 128, 130
Winkler, J. R., 646
winter crane flies, *see* Trichoceridae
Winterbourn, M. J., 182, 793
wireworms, *see* Elateridae; false, *see* Tenebrionidae
Wirth, W. W., 778
Wise, K. A. J., 68, 535
Wish, M., 116
witchety grubs, 223, 224, 673, 871
Withycombe, C. L., 525
Wittmer, W., 649
Wolf, H., 976
Womersley, H., 199, 206, 207, 209, 252, 261, 269, 272, 275
Womersleymeria, 258, 260
wood: as food, 57, 58, 59, 102, 291, 329, 336, 345, 346, 347, 562, 632, 637, 679, 850; tunnels or cavities, 478, 613, 618, 643, 644, 646, 650, 651, 656, 682, 683, 770, 772, 830, 860, 863, 887, 929, 934, 935, 943, 948, 965, 971, 973, 979, 985, 991, 993, 996, 999; wood-boring insects, 88, 89, 223, 233, 284, 328, 337, 340, 344, 560, 562, 563, 607, 608, 637, 642, 644, 656, 663, 664, 672, 673-4, 680, 682, 683, 747, 870-1, 876, 877, 888, 928, 931, 932, 938, 940, 941, 944-5, 946, 948, 949, 954, 956, 961, 963, 965, 967, 973, 999; *see also* stem-borers
Wood, D. M., 139
Wood, G. A., 84, 893
Wood, S. L., 552, 678, 683
Wood, T. G., 330, 340
wood crickets, *see* Gryllacrididae
wood moths, *see* Cossidae
wood wasps, *see* Siricidae
Woodburn, T. L., 448
Woodhill, A. R., 199, 211-12
Woodland, J. T., 130
Woodroffe, G. E., 562
Woodward, T. E., 199, 212, 429, 476, 478, 485, 489, 491, 499, 502, 503
Woodwardothignus gracilis Slater, 503
wool, pests of, 830; fabric, 642
Woolley, J. B., 968
woolly aphid, *see* *Eriosoma lanigerum*
Wootton, R. J., 12, 13, 15, 131, 132, 143, 144, 149, 170, 171, 298, 434, 444, 479
worker: of Hymenoptera, 929, 980-9 *passim*, 993, 998, 1000; of Isoptera, 330, 333, 336, 337
Worner, S. P., 246
Wright, D. E., 107, 108, 378, 391
Wróblewski, A., 488
Wuchereria bancrofti (NEMATODA), 217, 230
Wurthiinae, 887-8
Wurunjerria, 713, 714; *W. warnekei* Mardon and Dunnet, 714-15
Wygodzinsky, P., 130, 270, 274, 276, 278, 496
Xanthagrion erythronerum (Selys), 306
Xanthium spinosum (BOT.), 771
Xanthocanace, 779
Xanthocypris, 945
Xanthodule, 910; *X. semiochrea* Butler, 910
Xanthogryllacris punctipennis (Walker), 375
Xantholinini, 624
Xanthopimpla, 944
Xanthorhoe, 891
Xanthorrhoea (BOT.), 223, 664, 682, 850, 870, 887, 999
Xanthorrhoeaceae (BOT.), 668, 677
Xanthosia pilosa (BOT.), 83
Xenasteia, 775
Xenasteiidae, 733, 734, 766, 775

- Xeninae, **695**
Xenobates, 483
 Xenochoristidae, 172
Xenocryptus tenebroides Arrow, 654
Xenoencyrtus, 968
Xenohelca, 746
Xenomerini, 954
Xenomerus, 954
Xenopsylla, 711, 714; *X. cheopis* (Rothschild), 227, 230, 708, 709; *X. vexabilis* Jordan, 710
 Xenopteridae, 164
Xenopus (AMPHIBIA), 248, 249
Xenos, 689, 695
 Xenoscelinae, 576, 578, 586, 605, **654**
Xenoscelinus, 655
Xenosciomyza, 768
 Xenosphecinae, 990
Xenostigmus, 962
Xenylla, 260, 261
 Xeroderinae, **404**
 Xeromelissinae, 995
Xerometra, 868; *X. crocina* (Meyrick), 869
Xestoblatta hamata (Giglio-Tos), 323
 Xestocephalinae, 441, **472**
Xestocephalus, 472
 Xiphocentronidae, 795
 Xiphopteridae, 164
 Xiphozelinae, 947
 Xiphydriidae, 556, 930, 931, **932**, 933, 939, 941
 Xiphydriinae, 930, **932**
 Xoridinae, **945**
Xya, 393
Xyalaspis, 955, 956
Xyalophora, 955, 956
 Xyelidae, 173, 175, 930, 931
 Xyeloidea, 930
 Xyelotomidae, 175
 Xylariophilinae, **656**
Xylariophilus, 580, 603, 656
 Xylastodorinae, 494
Xyleborus, 556, 562, 683
 xylem-feeding, 57, 438, 439, 464, 465, 468
Xyleutes, 829, 870-2, 874; *X. affinis* Rothschild, 870, 871; *X. amphiplecta* Turner, 870, 871; *X. boisduvali* Rothschild, 89; *X. cinereus* (Tepper), 223, 870; *X. encalypti* (Herrich-Schäffer), 870; *X. leucomochla* Turner, 223
Xylion, 643; *X. cylindricus* (Macleay), 643
Xylobanus, 640
Xylobosca, 643; *X. hispinosa* (Macleay), 643
Xylochomitermes, 346
Xylocopa, 994, 999
 Xylocopinae, 997, **999-1000**, Pl. 5
 Xylocopini, 995, 999
Xylocoris flavipes (Reuter), 489
Xylographus, 662
 Xylomyidae, 734, 752, **755**
 Xylophagidae, 734, 752, **755**
Xylophilostenus octophyllus Lea, 672
Xylophilus, 671
Xylopsocus, 643
Xylorycta, 862-3; *X. luteotactella* (Walker), 862-3; *X. strigata* (Lewin), 863
 Xyloryctidae, see Oecophoridae
 Xyloryctinae, 831, 859, **860-3**
Xylotrupes, 563; *X. gideon* (Linnaeus), 630
 Xyphiopsyllidae, 710
 Xyronotidae, 378

 Yager, D. D., 349
 Yamane, S., 939
 Yamasaki, T., 358, 359
 yams, see Dioscoreaceae
Yarrita pikiara Otte and Alexander, 384
 Yasumatsu, K., 971
Ycaploca evansi Nagy, 971, 972
 yeasts: as food, 415, 530, 560, 640, 656, 683, 778; as symbionts, 439, 539, 560
 Yeates, D. K., 88, 759, 998
 yellow fever, 218, 732
 yellow peach moth, see *Conogethes punctiferalis*
 Yin, W.-Y., 266, 267, 268
 yolk, 62, 63
Yorkiella picta Carl, see *Chlorobalius leucoviridis*
 Yoshimoto, C. M., 175, 957
 Yoshiyasu, Y., 887
 Younès, T., 123
 Young, D. A., 470
 Young, D. K., 660, 671
 Young, G. R., 688, 694
 Young, L., 216
 Young, O. P., 621
Yponomeuta, 828, 855, 857, 858; *Y. paurodes* Meyrick, 855, 856
 Yponomeutidae, 826, 828, 832, 851, **855-6**, 857, 858, Pl. 7
 Yponomeutinae, **855**
 Yponomeutoidea, 820, 821, 828, 832, 833, 847, **854-9**
 Ypsistocerinae, 947
 Ypsolophidae, 832
Yucca (BOT.), 513, 842
 Yule, C., 311, 313, 314
Yuukianura, 257

 Zacher, F., 364
Zachobiella, 539
Zaglyptus, 944
 Zaitzev, Yu. M., 676
Zalea, 767, 779
Zanchius, 493
 Zandee, M., 190
Zanessa, 493
 Zaprochilinae, 379, **382**, 383
Zaprochilus, 382; *Z. australis* Brullé, 382, 383
Zeadotopus, 571, 620
 Zeck, E. H., 215, 656, 664
 Zelazny, B., 478
Zelleria, 855
Zelomorpha, 949

Zelotypia, 840; *Z. stacyi* Scott, 836, 840
Zenarge turneri Rohwer, 926, 934
 Zenarginae, **934**
Zenithicola crassus (Newman), 646
Zeonidicola, 653; *Z. chathamensis* Watt, 653; *Z. dunbletoni* Crowson, 653
 Zessin, W., 161, 164, 175
 Zetto Brandmayr, T., 614
 Zeugloptera, 140, 817, 819, 822, 828, 831, 833, **834-5**
Zeugophora, 676; *Z. (Pedrillia)*, 676
 Zeugophorinae, 672
 Zeuner, F. E., 357
Zeuxidiplosis giardi (Kieffer), 732, 739, 749
Zeuzera, 872
 Zeuzerinae, **870-2**
 Zherikhin, V. V., 144, 164, 166, 175, 178
 Zimmerman, E. C., 185, 464, 682
 zinc finger proteins, 248
 Zinsmeister, W. J., 192, 193
 Zinsser, H., 93
Zizina labradus (Godart), 899
 Zobelein, G., 441
 Zolini, 563, 612, 614
 Zolodinini, 563, 667
Zolodinus zelandicus Blanchard, 667
 Zonitinae, **668**
Zonitis, 668; *Z. lutea* Macleay, 667
 zoogeography, see biogeography
Zoological Record, 123
 Zopheridae, 552, 563, 565, 566, 574, 575, 577, 581, 603, 604, 660, 661, 662, **664-5**
 Zopherinae, 603, **665**
Zopherosis, 577, 665; *Z. georgei* White, 661, 664
Zoraida, 475, 477, 478
 Zoraidini, 477
 Zoraptera, 26, 31, 77, 132, 133, **135**, 142, **165**, 320, **410-11**
Zoropsocus, 169; *Z. itschetuensis* Vishniakova, 168; *Z. pilosus* Vishniakova, 168
Zorotypus, 165, 410; *Z. hubbardi* Caudell, 410, 411
Zosteria, 758
 Zumpt, F., 725
 Zuphiini, 613
 Zuska, J., 769
 Zwick, P., 131, 132, 133, 162, 163, 182, 195, 311, 313, 314, 537, 619, 621, 742
 Zygaenidae, 818, 825, 832, 876, **877-8**, 888, Pl. 6, Pl. 7
 Zygaeninae, 877
 Zygaenoidea, 820, 832, 833, 847, **877-80**
 Zygentoma, see Thysanura
Zygina zealandica (Myers), 471
Zygomaturus (MAMMALIA), 79
 Zygopinae, **683**
 Zygoptera, 13, 42, 73, 120, 162, 179, 294-304 *passim*, **305-7**, 970, 993
Zygrita, 562; *Z. diva* Thomson, 672
Zyxomma, 310; *Z. elgneri* Ris, 310
 Zyxommatinae, **310**