

## Index

- acoustic signals  
 airborne, 144  
 far-field sound, 144  
 near-field sound, 144  
 percussion, 146  
 stridulation, 148  
 tremulation, 150  
 water-borne, 143
- Aebutina*  
*binotata*, 284
- Aelurillus*  
*muganicus*, 309
- Agelena*  
*consociata*, 165  
*silvatica*, 365, 366,  
 369
- Agelenopsis*  
*aperta*, 114, 131, 153, 154,  
 241, 315
- Allocosa*  
*alticeps*, 131, 217  
*brasiliensis*, 131, 217
- allomones, 130, 139
- Anelosimus*, 279  
*arizona*, 285  
*domingo*, 285  
*eximius*, 279, 286, 287,  
 366, 376  
*guacamayos*, 286  
*jabaquara*, 284
- studiosus*, 165, 217, 282,  
 285, 320
- Anopheles*, 39
- Anoplolepis*  
*steingroeveri*, 111
- antipredator defence  
 secondary, 104
- Antrodiaetidae, 2
- Aphantochilus*  
*rogersi*, 313
- Aphonopelma*  
*chalcodes*, 332  
*hentzi*, 332
- aposematism, 105
- Araneoidea, 4
- Araneomorphae, 2, 3
- araneophagy, 44, 351
- Araneus*, 68, 140  
*diadematus*, 76, 81, 310  
*ventricosus*, 76, 193
- Argiope*, 62, 68, 70, 75,  
 195, 369
- aemula*, 85
- aetherea*, 83
- aetheroides*, 84
- amoena*, 14, 193
- argentata*, 67, 69, 71, 75, 83,  
 84, 195, 314, 315
- aurantia*, 67, 69, 85, 140,  
 240, 252
- bruennichi*, 14, 130, 131, 135,  
 193, 195, 238, 247,  
 250, 252
- keyserlingi*, 77, 85, 228, 246,  
 250, 317, 318
- lobata*, 251
- savignyi*, 67
- trifasciata*, 69, 76, 78, 85, 140
- versicolor*, 82, 85, 112, 318
- Argyrodes*, 137, 205, 291,  
 296, 351
- alannae*, 362
- antipodianus*, 231, 319,  
 349, 362, 368, 370,  
 373, 377
- argentatus*, 370
- argyrodes*, 366, 369
- elevatus*, 137, 364, 368,  
 369, 370
- fissifrons*, 365, 370
- flavescens*, 313
- flavipes*, 349, 365
- kumadai*, 365
- rainbowi*, 362
- zonatus*, 375
- Argyroneta*  
*aquatica*, 7, 57
- Ariamnes*, 351
- Arthrolycosa*, 17
- attack strategies, 313

## 388 Index

- Atypidae, 2  
*Atypus*, 60  
*Austracantha minax*, 198  
 autotomy, 104  
  
 background matching, 196  
*Badumna*  
   *longinqua*, 362  
*Bagheera*  
   *kiplingi*, 48, 294  
 ballooning, 6  
 behavioural syndromes,  
   320, 379  
 bigyny, 228, 238  
 bilin pigments, 194  
 bolas spiders, 43, 62  
 book lungs, 6  
*Brettus*, 205, 313  
  
 calamistrum, 19  
 Carboniferous, 17, 58  
*Celaenia*, 200  
 central nervous system  
   protocerebrum, 331, 367  
   suboesophageal ganglion,  
     16, 330  
   supraoesophageal  
     ganglion, 16, 330  
 chelicerae, 4, 12, 34  
 chemoreception, 36  
 chemoreceptive hairs, 16, 142  
*Clitaetra*, 63, 248  
 clypeal glands, 375  
*Cocalus*, 313  
*Coelotes*, 140  
   *terrestris*, 136, 165  
 colour  
   change, 196, 199  
   perception, 14, 157,  
     158, 192  
   polymorphism, 191, 195,  
     198  
 communication  
   gustation, 129  
   olfaction, 129  
   pheromones, 129  
 contextual cues, 311  
 cooperative hunting, 372  
*Cosmophasis*, 194  
   *bitaeniata*, 42,  
     139, 202  
   *umbratica*, 159,  
     160, 193  
 courtship  
   display, 374  
   duration, 223  
   morphotypes, 222  
*Crematogaster*, 43, 294  
 Cretaceous, 18  
 cribellum, 3, 19, 35  
*Cryptaranea*, 63  
 cryptic female choice, 250,  
   375  
*Cupiennius*, 193, 221  
   *salei*, 16, 17, 131, 135, 142,  
     144, 151, 162, 204, 309,  
     326, 331  
 cursorial spiders, 36  
*Cyanocilla*  
   *cristata*, 69  
*Cyclosa*, 68, 69  
   *argenteoalba*, 316  
   *mulmeinensis*, 72, 77  
   *octotuberculata*, 318  
   *sedeculata*, 67  
*Cyrba*, 205, 313  
*Cyrtarachne*, 61  
*Cyrtophora*, 62, 65, 291  
   *citricola*, 292, 294, 296, 297,  
     298, 369  
   *moluccensis*, 293, 296, 298,  
     365, 369  
 Deinopoidea, 4  
*Delena*  
   *cancerides*, 282  
 detouring, 327  
 Devonian, 58  
  
*Diaea*  
   *ergandros*, 165  
   *socialis*, 282, 286  
*Deinopis*, 38  
*Diplocephalus*  
   *permixtus*, 137  
 dispersal  
   long distance, 284  
 disruptive coloration, 195,  
 division of labour, 282  
*Dolomedes*, 7, 227  
   *fimbriatus*, 143  
   *triton*, 135, 143, 321  
 dragline silk, 6, 9  
   production, 9  
*Drosophila*, 332, 375  
*Dysdera*, 34  
  
 ecdysone, 17  
*Echinotheridion*, 237  
 ecotypic variation in  
   behaviour, 114  
 Entelegynae, 4  
 epigyne, 11  
*Eriophora*  
   *pustulosa*, 368  
*Ero*  
   *furcata*, 205  
*Euryattus*, 113, 206  
 euryphagy, 32  
*Evarcha*  
   *culicivora*, 39, 41, 48, 133,  
     138, 163, 311  
 extra-oral digestion, 33  
 eyes  
   anterior lateral, 13, 38, 157  
   anterior median, 13, 38,  
     157  
   posterior lateral, 13, 38, 157  
   posterior median, 13, 38,  
     157  
*Faiditus*, 137, 291, 351  
   *caudatus*, 364, 370

- ululans*, 362, 366, 369, 370, 376
- female genitalia  
 entelegyne, 21  
 haplogyne, 20
- female-biased sex ratio, 285
- fluorescence, 159, 191
- fluorophores, 159, 193
- Frontinella*  
*communis*, 136, 138, 155, 230
- Frontinellina*  
*frutetorum*, 317
- Gasteracantha*, 75, 195  
*cancriformis*, 67, 249
- Gelotia*, 205
- good genes, 235
- guanine crystals, 158, 194
- Habronattus*, 163, 221  
*dossenus*, 204  
*pugillis*, 221
- Habronestes*  
*bradleyi*, 139
- Haplogynae, 4
- Hasarius*  
*adansoni*, 329
- helpers-at-the-nest, 284
- herbivory, 48  
 Beltian bodies, 48  
 pollen feeding, 47
- Heremia*, 63, 248
- Hibana*  
*futilis*, 310
- Hogna*  
*carolinensis*, 310, 330, 331  
*helluo*, 112, 226, 310, 321, 322
- Holocnemus*  
*pluchei*, 105, 291, 293, 294, 316, 320
- Holocremus*  
*rivulatus*, 366
- Hygrolycosa*  
*rubrofasciata*, 144, 152, 204, 225
- Hypochilidae, 4
- Hyptiotes*, 62
- Iridomyrmex*  
*purpureus*, 139
- Jacksonoides*  
*queenslandicus*, 37, 38, 138, 312, 322
- Jurassic, 18
- Kaira*, 200
- kairomones, 130, 138
- kin selection, 288
- kleptobiont, 364
- kleptoparasitism, 351
- Kukulcania*  
*hibernalis*, 105
- Larinioides*  
*sclopetarius*, 318
- Latrodectus*, 70, 106  
*geometricus*, 238  
*hasselti*, 130, 131, 153, 232, 236, 237, 238, 250  
*hesperus*, 72, 82, 111, 136, 140, 239, 317  
*pallidus*, 153
- leg tufts, 159
- Leucauge*, 195  
*celebesiana*, 195  
*mariana*, 154
- Leucorchestris*  
*arenicola*, 324, 326
- Linyphia*  
*triangularis*, 135, 155
- Liphistiidae, 2
- Loxosceles*  
*reclusa*, 309
- Lubinella*  
*morobensis*, 67
- Lycosa*, 158  
*tarantula*, 228, 326
- lyriform organs, 15, 145
- Maevia*  
*inclemens*, 161, 222
- major ampullate gland, 4, 9
- major ampullate spidroin 1, 70
- male monopolisation, 248
- Mallinella*, 148
- Mallos*  
*gregalis*, 139
- Maratus*  
*volans*, 191
- Mastophora*, 62, 139, 200  
*cornigera*, 202  
*hutchinsoni*, 202
- mating plug, 234, 246
- matriphagy, 12
- maxillae, 12, 34
- Mecicobothriidae, 2
- Menemerus*  
*fulvus*, 193
- Mesothelae, 2
- Metabus*, 291  
*ocellatus*, 292, 294, 297
- metatarsal lyriform organ, 145
- Metellina*  
*segmentata*, 134, 240
- Metopeira*, 291  
*atascadero*, 295  
*incrassata*, 110, 292, 295, 296  
*spinipes*, 292
- Micrathena*  
*gracilis*, 195, 249  
*sagittata*, 309  
*sexspinosa*, 67
- Mimetus*, 205  
*notius*, 205
- mimicry  
 aggressive, 41, 43, 116, 191, 197, 200, 204, 370  
 Batesian, 42, 43, 106, 294

## 390 Index

- mimicry (cont.)  
 camouflage, 101, 117
- Misumena*  
*vatia*, 216, 313, 315, 316
- Misumenoides*  
*formosipes*, 231
- monogamy, 233
- monogyny, 228, 237
- Mopsus*  
*mormon*, 223
- multimodal signals, 162
- Mygalomorphae, 2
- Myrmarachne*, 34, 107  
*assimilis*, 107, 294, 296  
*melanotarsa*, 43, 294
- Natta horizontalis*, 223
- Neocribellata, 4
- Neoscona*  
*punctigera*, 195
- Neospintharus*, 291, 351  
*trigonum*, 138, 365, 366, 369
- Nephila*, 62, 69, 70, 198, 363  
*clavipes*, 71, 78, 232, 292, 313, 315, 317, 364, 370  
*edulis*, 77, 232  
*fenestrata*, 230, 240, 247, 248  
*inaurata*, 240  
*pilipes*, 71, 75, 77, 195, 198, 248  
*plumipes*, 232, 240, 247
- Nephilengys*, 62, 80, 248, 292
- Neriere*  
*litigiosa*, 154, 219, 235, 246  
*peltata*, 315  
*radiata*, 365, 369
- neurochemicals, 332
- nuptial gifts, 235
- Octonoba*, 68  
*varians*, 67
- Oecophylla*  
*smaragdina*, 42, 107, 139, 202, 294
- Oedothorax*  
*apicatus*, 235  
*retusus*, 137
- ommochromes, 158, 194
- operant conditioning, 313
- opisthosoma, 6
- Opisthothelae, 2
- Orbiculariae, 4
- Oxyopes*  
*salticus*, 310
- Palaeothele*, 17
- Paleocribellata, 4
- Paraphidippus*  
*aurantius*, 323
- Parasteatoda*, 370  
*tepidariorum*, 77, 318  
*wau*, 279, 284, 286
- Parawixia*, 291  
*bistriata*, 17, 82, 292, 295, 320
- Pardosa*, 140, 226  
*astrigera*, 224  
*milvina*, 112, 153, 162, 322  
*pratigava*, 153, 310
- Pasilobus*, 62
- Pavlovian conditioning, 311
- pedipalps, 4, 10
- permanent sociality, 278
- Permarachne*, 17
- Permian, 17, 58
- Phaeacius*, 46
- pheromones  
 airborne, 217  
 contact, 217  
 cupilure, 135  
 eavesdropping, 139  
 male signalling, 131  
 olfactory receptors, 142  
 trimethyl methylcitrate, 131
- Phidippus*  
*audax*, 141, 330  
*clarus*, 154, 231, 246, 319, 324  
*johnsoni*, 14, 134, 223  
*princeps*, 311, 325
- philopatry, 283
- Philoponella*, 291  
*oweni*, 296  
*republicana*, 293, 298
- Phintella*  
*piatensis*, 108  
*vittata*, 161
- Pholcus*  
*beijingensis*, 131  
*phalangioides*, 205, 235, 246
- Phryganoporus*  
*candidus*, 362
- Physocyclus*  
*globosus*, 156, 246
- piriform gland, 4
- Pisaura*  
*mirabilis*, 236, 253
- Pityohyphantes*  
*costatus*, 365, 369
- Plexippus*  
*paykulli*, 161, 223
- polyandry, 234
- Portia*, 44, 49, 82, 102, 157, 327  
*africana*, 293  
*fimbriata*, 37, 38, 113, 138, 205, 206, 312, 313, 322, 365  
*labiata*, 45, 113, 138, 205, 311, 318, 320
- predator defence  
 evolutionary arms race, 115  
 group living, 110  
 primary, 101
- prey aversion, 310
- prey choice, 309
- prosoma, 4
- Rabidosa*  
*punctulata*, 224  
*rabida*, 322

- resource holding potential,  
 154, 229
- Rhomphaea*, 351  
*urquharti*, 376
- ricochet effect, 295
- risk-sensitive foraging, 295
- RTA clade, 4
- Salassina*  
*crassipina*, 67
- Schistocerca*  
*americana*, 332
- Schizocosa*, 140, 151, 164, 221,  
 226  
*avida*, 315, 322  
*malitiosa*, 218  
*ocreata*, 109, 140, 151, 152,  
 159, 315, 316, 321  
*retrorsa*, 146  
*rovneri*, 151, 321  
*uetzi*, 160, 164, 321
- Scoloderus*, 63
- Scytodes*, 133, 327  
*pallida*, 45, 113
- selective attention, 311
- sensory exploitation, 190, 197
- sex determination  
 mechanism, 286
- sexual cannibalism, 252  
 pre-copulatory, 220
- sexy sons, 221, 235, 250
- short-term memory, 315
- Silhouettella*  
*loricatura*, 245
- silk  
 $\beta$ -sheets, 8, 70  
 aciniform, 66  
 aggregate gland products, 78  
 alanine, 8, 70, 75  
 bridal veils, 137, 220  
 cocoon, 11  
 cribellar, 58, 61  
 flagelliform, 58, 61, 64, 66  
 glycine, 8, 70, 79  
 low molecular weight  
 organic compounds, 78  
 major ampullate, 66, 75,  
 76, 77  
 minor ampullate, 66  
 non-crystalline region, 8  
 pyriform, 66  
 tubuliform, 66  
 size-assortative mating, 228  
 slit sensilla, 15, 145  
 sperm  
 cleistospermia, 10  
 coenospermia, 10  
 competition, 241  
 depletion, 235  
 dumping, 245, 251  
 induction, 10  
 precedence, 242  
 synspermia, 10  
 spermathecae, 11, 242  
*Spheropistha*, 351  
 spidroin gene, 19  
 spigots, 19  
 spinneret, 6, 19, 35  
*Stegodyphus*, 279  
*dumicola*, 111, 284, 286  
*lineatus*, 155, 165, 221, 234,  
 254, 283, 284, 288  
*mimosarum*, 284  
*sarasinorum*, 165  
*tentoriicola*, 288  
 stenophagy, 32  
 sterile male-technique, 242  
 structural colour, 158, 194  
*Taczanowskia*, 200  
 tarsal organ, 16  
*Tegenaria*, 140  
*atrica*, 17, 135, 165, 320  
*domestica*, 136  
*Telaprocera*, 63  
 temporary aggregations, 291  
 Tertiary, 18  
*Tetragnatha*, 292  
 thanatosis, 253  
*Theraphosa*  
*blondi*, 150  
*Theridion*  
*grallator*, 198  
*nigroannulatum*, 282  
*Tidarren*, 237  
 trial-and-error learning,  
 313  
 Triassic, 18, 58  
 trichobothria, 15, 144  
*Trochosa*, 136  
*Tylorida*, 63  
 UV-reflection, 158, 161, 196  
 venom gland, 12, 34  
 vibrations  
 lateral waves, 204  
 longitudinal waves, 203  
 rotational waves, 204  
 transverse waves, 203  
 visual ornaments, 158  
 web decorations, 66, 198,  
 318  
 anti-predator, 85, 112  
 prey attraction, 84  
 webs  
 aerial sheet, 63  
 barrier, 63  
 gum-footed, 65  
 ladder, 63  
 orb, 61  
 scaffolding, 362  
 substrate bound, 60  
 triangle, 62  
 web-site selection, 314  
*Zelanda*, 205  
*Zenodorus*, 309  
*Zygiella*, 61  
*x-notata*, 83, 228, 314, 317,  
 323, 369