

INDEX FOR VOLUME 53

(new names in **boldface**)

- Abies*, 26
Accuminulia, 60
 buscki, 60
 longiphallus, 60
Achillea
 lanulosa, 74
 millefolium, 74
Actias
 selene, 134
 luna, 134
Adamski, D., 29
Aglossa, 8
 caperalis, 2
Agraulis, 17
Aiello, 142
Alberta, Canada, 127
Albu, V., 45
allelochemicals, 104
alpine habitat, 32
Amathes
 glareosa, 99
Amazonia, 65
Anopheles, 106
Antheraea, 134
 hartii, 134
 pernyi, 134
 polyphemus, 134
antioxidant, 104
anti-predation, 130
apricot, 60
Arbutus
 menziesii, 22
 xalapensis, 27
Archipini, 114
Arctiidae, 72
Arctonotus
 lucidus, 171
Arctostaphylos
 patula, 22
Area de Conservacion Guanacaste (ACG), 77
Arecaceae, 142
Arescoptera, 7
Argema
 mittrei, 134
Argentulia, 61
Argyrotaenia, 114
 bialbistriata, 114
 coconinana, 115
 octavana, 114
 ponera, 115
 spinacallis, 114
 unda, 114
Arispe, 8
Asclepiadaceae, 37
Asclepias, 37
 asperula, 38
 curassivica, 15, 38
 latifolia, 38
 oenotheroides, 38
 syriaca, 43
 texana, 38
 viridis, 38
Asia, 7
Attacini, 50, 133
Attacus
 atlas, 134
Australia, 1
Balcazar-Lara, M. A., 45
Basilarchia
 archippus archippus, 104
 arthemis astyanax, 104
 arthemis arthemis, 104
Berenbaum, M., 104
Bicyclus, 26
Bidens pilosa, 15
biennialism, 127
biodiversity, 65, 153
bird dropping, 104
Biston
 betularia, 99
 betularia cognataria, 101
black swallowtail, 104
Blastobasinae, 29
Blastobasini, 29
Blepolenis
 batea, 146
Bolivia, 65
Boloria
 acrocnema, 32
 improba, 32
Brassolinae, 142
Brassolis
 astyra, 142
 astyra astyra, 142
 isthmia, 142
 sophorae, 142
Brazil, 11, 65, 108
British Columbia, 22, 74
Brown, J. W., 60, 114
Burns, J. M., 77
Byrsonima
 crassifolia, 89
Cacotherapiini, 4
Calathea
 latifolia, 142
California, 22
Caligo
 amphirhoe, 148
 arisbe, 147
 atreus, 147
 atreus dionysos, 147
 beltrao, 147
 eurilochus, 147
 eurilochus brasiliensis, 147
 eurilochus sulanus, 147
 illoneus, 142
 illioneus oberon, 147
 illioneus pampeiro, 147
 idomeneus, 142
 martia, 147
 memnon, 142
 memnon memnon, 148
 memnon telamonius, 148
 oberthurii oberthurii, 148
 oileus, 148
 oileus scamander, 148
 placidianus, 148
 praxsiodus, 148
 prometheus epimetheus, 148
 teucer, 148
Callophrys
 xami, 170
Callosamia, 22, 49
 angulifera, 26, 134
 promethea, 50, 134
 securifera, 26, 134
Calvert, W. H., 37
Cammisionia, 171
 bistorta, 172
 strigulosa, 172
Carcelia
 reclinata, 72
catchability, 138
caterpillar, 22
Catoblepia
 amphirhoe, 148
 orgetorix championi, 148
Catocrosis, 8
Ceanothus
 integerrimus, 22
Ceanothus silk moth, 22
Celtis, 130
censusing, 138
Central America, 142
Cephise, 77
 nuspesez, 77
Chao, 65
Chiapas, Mexico, 153, 155
Chile, 60
Chileulia, 64
Chrysanthemum
 leucanthemum, 74
Chrysauginae, 1
Chrysobalanaceae, 77
Citheronia
 regalis, 134
Clark, R. M., 49
Clarke, C. A., 99
Clarkia
 breweri, 171
 gracilis, 172
 modesta, 171
 purpurea, 172
 unguiculata, 171
Cleora
 repandata, 99
Clepsis
 consimilana, 74
climate change, 32
Cocytius
 antaeus, 129
cognataria, 99
Coliadinae, 159
collecting activity, 32
Collins, M. M., 22
Colorado, 32

- Combretaceae*, 77
Conium
 maculatum, 72
 copulation, 170
 Cordero, 171
Coscinocera
 hercules, 134
 Costa Rica, 29, 65, 77
Cotesia, 24
 Crambinae, 1
 Crambini, 7
 Cramer, A., 114
 crypsis, 22
 Cucullinae, 55
 Cupressaceae, 55
Curatella
 americana, 89
Curena, 7
Cynanchum, 38
 barbigerum, 40
Cyrtostachys, 142

Danaus plexippus, 37
 gilippus, 38
Dasyophthalma
 rusina, 148
 developmental plasticity, 22
 developmental rate, 72
Dichrorampha
 gueneeana, 74
 sedatana, 74
 vancouverana, 74
Dione, 17
 Diptera, 72
 distribution, 133
Dolichomia, 8
 Douglas-fir, 22
Drephalys, 77
 alcmon, 77
 eous, 79
 helixus, 78
 heraclides, 78
 kidonoi, 77
 miersi, 79
 mourei, 79
 olva, 79
 olvina, 79
 opifex, 79
 phoenice, 79
 phoenicoides, 79
Drosophila
 melanogaster, 49, 106
Dryas, 17
Dynastor
 darius, 148
 darius mardonius, 148
 darius stygianus, 148
 macrosiris, 148
 napoleon, 148

 Ecuador, 65
 El Ocote Reserve, 153
Emilia
 sonchifolia, 15
Endotricha, 1
 flammealis, 2
 Endotrichinae, 2

 Endotrichini, 1
Epidendrum
 fulgens, 15
epipaschiine, 1
Erynnides, 78
Erynnis, 78
Eryphanis
 aesacus bubocula, 148
 automedon, 148
 polyxena lycomedon, 148
 reevesii, 148
Eudamus, 78
 helixus, 78
Eueides, 16
 Euliini, 60
Eumorphia, 26
Eupackardia
 calleta, 133, 134
Eupatorium
 laevigatum, 15
Euproserpinus
 euterpe, 172
 phaeton, 172
 Eurasia, 74
Eurema
 elatheia, 159
 hecabe, 165
Euryalus
 cedrosensis, 49

 Fabricius, 108
 f. carbonaria, 102
 feeding preference, 108
 female remating, 170
 fire ant, 37
 Flaim, D., 127
 Florida viceroy, 126
Forestiera
 angustifolia, 134
 frass chains, 130
Fraxinus
 greggii, 134
 Freitas, A. V. L., 11, 131
 f. swettaria, 102
 furanocoumarin, 104

 Galapagos, 129
Galium, 171
 aparine, 171
 Galleriinae, 2
Gauna, 7
Gayophytum, 171
 genitalia, 1, 80, 114
 morphology, 5
 Geometridae, 99
 Gómez- Nucamendi, O. L., 153
Gonodontis
 bidentata, 99
 Grant, B. S., 99
 grape, 60
 Grapholitini, 74
 Guanacaste, 29
Gurania, 15

Heliconia
 latispatha, 142
 heliconian butterflies, 108

 Heliconiini, 11
Heliconius, 165
 besckei, 20
 erato, 108
 erato phyllis, 11
 ethilla nacaeca, 17
 melpomene nanna, 19
 nattereri, 19
 numata robigus, 17
 sara apseudes, 17
Hemiceras, 65
Hemileuca, 50
 Hepialidae, 127
Herculia, 8
 psammioxantha, 2
Hesperidae, 77
 Heterocera, 153
Heyda
 salicella, 169
 hibernacula, 126
 Hinsdale County, Colorado, 32
Hirtella, 77
 racemosa, 77
 holarctic, 74
 host records, 142
 host-plant selection, 108
 hostplant, 133
Hyalophora, 49
 cecropia, 49, 134
 columbia, 134
 columbia columbia, 24, 49
 columbia gloveri, 24, 49
 euryalus, 22, 49, 134
 gloveri, 134
Hypatopa
 interpunctella, 31
 tapadulcea, 29
Hyles
 lineata, 172
Hypolimnas
 bolina, 138
Hypsopygia, 8

Ichneumon sp., 72
 immigrant, 169
Impatiens
 walleriana, 15
Inape, 61
 industrial melanism, 99
 invertebrate inventory, 153
 island colonization, 129
 Ithomiinae, 16

 jackknife, 65
 Janzen, D. H., 77
 Jones, R. W., 153

 Karban, R., 73
 Kemp, D. J., 138
 Kruger, M., 47

Lantana
 camara, 15
Larix, 26
 laricina, 50
 larval diapause, 126
 larval food plants, 142

- larval integument, 104
 leaf age effects, 108
Leschenaultia
 adusta, 72
Leucophyllum
 frutescens, 134
Libytheana
 carinenta, 130
 Libytheinae, 130
 life cycle, 22
 life history, 171
 light traps, 129
Ligustrum, 133
Limenitis
 archippus floridensis, 126
Lithophane
 leautieri, 59
 lemmeri, 55
 longior, 59
 subtilis, 59
 thujae, 55
 Los Tuxtlas, Veracruz, 155
 lupine, 72
Lupinus
 albicaulis, 72
 albifrons, 72
 arboreus, 72
 Lycaenidae, 170
- Macna*, 1
 madrone, 22
 Maine, 74
 Malpighiaceae, 77
 mandibular morphology, 133
 manzanita, 22
Mapeta, 8
 Marantaceae, 142
 mark-release-recapture, 11, 138, 159
Matelea, 38
 reticulata, 38
 mating frequency, 170
 mating system, 170
Melanargia
 galathea, 140
 Mexico, 37, 114
 Michigan, 55
Micromasta, 1
 isoldalis, 7
Micronix
 amsel, 1
 nivalis, 7
 migration, 37
Mikania
 lundiana, 15
 milfoil, 74
 milkweeds, 37
 Miller, W. E., 75, 169
 Monarch butterfly, 37
 monocotyledonous plants, 142
 Morón-Ríos, 153
 morphological characters, 1
 morphology, 1, 114
 Morro
 de Japui, 11
 de Vorturua, 11
 Mount Uncompahgre, 32
- Musa*
 saientum, 142
 Musaceae, 142
- Narope*
 cyllastros, 149
 cyllastros cyllastros, 149
 cyllastros testacea, 149
 natural regions, 37
Nemophila, 72
Nemoris, 26
Neodavisia, 8
 neotropical region, 153
 Neotropics, 1, 29, 60
 New Brunswick, 55
 New Hampshire, 74
 New York, 60, 74
 Noctuidae, 1, 55, 129
Nola
 pygmaea, 1
 Nolinae, 1
 North America, 37, 74, 171
 northern white cedar, 55
 Notodontidae, 65, 133
 Nymphalidae, 108, 130, 138, 142, 165
- Ocrasa*, 8
Oenothera, 172
 Olethreutinae, 74, 169
 Onagraceae, 171
 ontogenetic development, 133
Opodiphthera
 eucalypti, 134
Opotera
 aorsa, 149
 staudingeri, 149
 syme, 149
Opsiphanes, 142
 bogotanus, 149
 bogotanus bogotanus, 149
 cassiae, 149
 cassiae cassiculus, 149
 cassiae lucullus, 149
 cassina aiellae, 149
 cassina fabricii, 149
 invirae, 149
 invirae amplificatus, 150
 invirae cuspidatus, 150
 merianae, 150
 quiteria, 150
 quiteria badius, 150
 quiteria meridionalis, 150
 quiteria quirinus, 150
 tamarindi, 150
 tamarindi sikyon, 150
 tamarindi tamarindi, 150
 Osborne, K. H., 173
 oviposition, 37
 ox-eye daisy, 74
- Palearctic species, 169
 Panama, 142
 Pantepui, 90
Papilio, 26
 polyxenes, 104
 xuthus, 104
- Papilionidae, 16, 104, 165
Paradrephephalys, 77
 croceus, 79
 dumeril, 79
 oria, 79
 oriander, 79
 talboti, 79
 tortus, 79
Paradros, 77
 parasitism, 72
Passiflora
 alata, 15
 capsularis, 15
 edulis, 15
 jileki, 15
 suberosa, 108
 Passifloraceae, 11
 passion vines, 108
 Passoa, S., 133
 Passoa, V., 133
Pastinaca
 sativa, 105
 peach, 60
Pedaliodes, 90
 chaconi, 95
 darmarmelsi, 95
 dejecta, 96
 manis, 95
 napaea, 96
 prytanis, 95
 roraimae, 95
 terramaris, 90
 yutajeana, 90
 Peigler, R. S., 47
 Penz, C. M., 142
 peppered moths, 99
Perforadix, 1
 sacchari, 1
Perisseretma, 7
 Peru, 65
Perula, 7
 pest species, 60
Petroselinum
 crispum, 105
Phacelia, 72
 phenotypic plasticity, 22
Phigalia
 titea, 99
 photoperiod, 126
 Phycitinae, 2
 phylogeny, 49, 114
 Pieridae, 16, 159
Pieris
 brassicae, 104
 pigmentation, 104
Plagiobothrys, 72
Plantago, 72
 Platt, A. P., 127
Platyrepia
 virginalis, 72
 Pleistocene, 90
 plum, 60
 Poaceae, 142
Pococera complex, 4
 Pogue, M. G., 65
 Pollard transect, 32

- polymorphism, 22
 polyphenism, 11, 159
ponera group, 114
 population biology, 159
 population estimation, 138
Populus, 169
Praepronophila, 93
Proeulia, 60
 Pronophilinae, 90
Proserpinus
 clarkiae, 171
Proteaceae, 77
Protopedaliodes, 90
 kukenani, 93
 profauna, 90
 ridouti, 90
Prunus, 50, 60
 armeniaca, 60
 domestica, 60
 emarginata, 22
 persica, 60
Pseudasopia, 8
Pseudodrephalys, 77
Psuedotsuga
 menziesii, 22
 Puerto Rico, 7
 Puntarenas, 29
 Pyralidae, 1
 Pyralinae, 1
 Pyralini, 1
Pyralis, 8
 farinalis, 1
 Pyraloidea, 7
 Pyraustinae, 1
 Pyrcz, T. W., 90
Pyrginae, 77

Quercus
 alba, 50

 Ramos, R. R., 11
 red raylets, 11
 Redcloud Peak, 32
Rhodnius
 prolixus, 106
 RFLP, 49
 Rodrigues, D., 108
 Roque-Albelo, L., 129
Rothschildia, 133
 cincta, 134
 erycina, 134
 forbesi, 134
 lebeau, 26, 134
 orizaba, 134

Roupalla
 montana, 77, 89
 Rubiaceae, 171
Rubus
 rosaefolius, 15
 ursinus, 72
 Rudinei Pires Moriera, 108
Rumex, 72

 Sabourin, M., 169
Saccharum
 spontaneum, 142
 Salicaceae, 32
Salix, 169
 arctica, 32
 caroliniana, 126
 reticulata nivalis, 32
Samia
 cynthia, 134
 Sao Vicente, 11
Sarcostemma, 38
 crispum, 40
 cynanchoides, 40
Saturnia
 mendocino, 27
 Saturniidae, 22, 49, 133
 Satyridae, 43
 satyrine, 90
Scenedra, 7
Scenidiopsis, 7
 Schmidt, B. C., 129
 Seidl, A. L., 32
 semivoltine, 127
 Shaffer, M., 1
 snow willow, 32
Solenopsis
 invicta, 37, 43
 Solis, M. A., 1
 southwest, 114
 spermatophore number, 170
Sphingicampa, 26
 Sphingidae, 129, 133, 153, 156, 171
 Spodoptera
 exigua, 100
 Srygley, R. B., 142
Stachytarpheta
 polyura, 15
Sthenopus
 argenteomaculatus, 127
 purpurascens, 127
 quadriguttatus, 127
 storage excretion, 104
 subspecies, 126
Subtrastillaspis, 61

Sufetula, 1
 grumalis, 7
 pygmaea, 1
 systematics, 60

Taboga, 1
 inis, 7
 Tachinidae, 72
Tanyethira, 7
 taxonomy, 49
 tepuyes, 90
 Texas, 37, 133
Thelaira
 americana, 72
 bryanti, 72
 thermoperiod, 126
 Thomas, A. W., 55
Thuja
 occidentalis, 55
Thysania
 zenobia, 129
 Timmerman, S., 104
Tithonia
 speciosa, 15
 Tortricidae, 60, 114, 169
Tortrix
 ponera, 117
 tritrophic interactions, 72
Trixis
 antimenorrhoea, 15
 Troidini, 16
 tropical forests, 153

 Uncompahgre fritillary, 32
 urban butterflies, 159
 uric acid, 104
Utetheisa
 ornatrix, 166

 Vale do Rio Quilombo, 11
 Vancouver, 74
Varifula, 61
 Venezuela, 90
 Vilorio, A. L., 90
Vitis, 60

 Washington, 74
 Webster, R. P., 55
 Western Hemisphere, 9
 winter moths, 55
 Wisconsin, 55

 Zalucki, M. P., 138