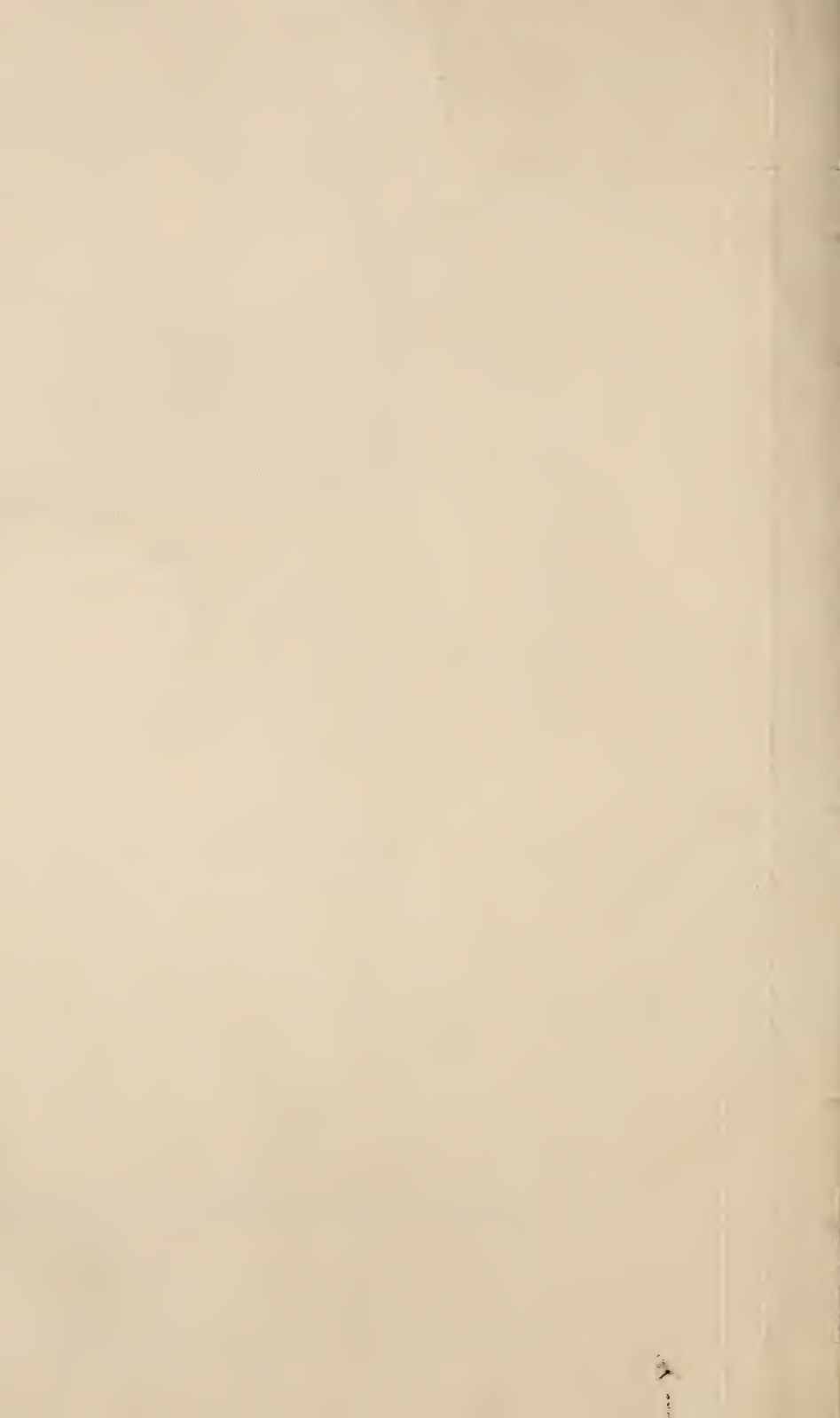


Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



Reserve

1,967
A2c 78

COOPERATIVE ECONOMIC INSECT REPORT

Volume 22 Index 1972

SPECIAL REPORTS

Alfalfa leaf blotch-miner - Situation in Eastern U.S. 132, taxonomy 134

Alfalfa weevil: Distribution map 113, selected references 1970-1971 669, 1968-1969 755

Banks grass mite situation in U.S. - 1971 218

Beet leafhopper: Surveys in desert areas of central Arizona, southeastern California, southern Nevada, and southern Utah and in Texas 267

Boll weevil: Hibernation survey, fall 1971 35, review of literature on the pheromone of 200, survival surveys - spring 1972 259, additional selected references 1968-1969 366, 1970-1971 589

Cereal leaf beetle: Infestation of cats in 1970 and 1971 371

Changes in scientific names 182

Conotelus mexicanus in California 728

Cooperative survey entomologists 72

European corn borer: Estimates of damage to grain corn in U.S. in 1971 510, status in 1971 50

Golden nematode - Spread since 1949 (map) 224, in the U.S. 264

Grasshopper adult survey, fall 1971 8

Gypsy moth: Chronological spread from 1869 to 1971 (map) 181, quarantine maps 442, 752, selected references 1970-1971 688, additional selected references 1967-1969 717

Hawaii insect report 7, 20, 33, 44, 61, 80, 111, 131, 149, 168, 216, 232, 246, 258, 273, 283, 310, 323, 363, 392, 414, 431, 445, 467, 487, 507, 531, 543, 567, 585, 603, 625, 644, 666, 686, 699, 714, 727, 754, 767, 783

Imported fire ant: Ecological range based on plant hardiness (map) 48, quarantine map 286, two species in U.S. 103

Insect detection in the United States - 1971 10

Insects not known to occur in U.S.: An African honey bee 158, a bark beetle 234

Japanese beetle: Quarantine map 216, selected references 1970-1971 395

Knappa beetle: Additional selected references 1967-1969 628, selected references 1947-1966 647, 1970 512

Larinus carlinae: A European weevil collected in Maryland 418

Light trap collections 9, 21, 33, 111, 131, 186, 217, 233, 247, 263, 274, 284, 311, 324, 340, 364, 393, 416, 432, 446, 468, 488, 508, 532, 548, 568, 586, 608, 626, 645, 667, 687, 700, 715, 726, 742, 753

Losses: Estimated losses and production costs attributed to insects and related arthropods - 1971 788, report of the committee on insect surveys and losses - 1972 101

Maps (distribution): Alfalfa weevil 103, brown wheat mite 100, European red mite 151, Hessian fly 248, southern corn rootworm 342, spotted alfalfa aphid 570

Maps (quarantines): European chafer 198, gypsy moth 442, 752, imported fire ant 286, Japanese beetle 216, pink bollworm 712, whitefringed beetle 698, witchweed 740

Measuring insect infestations 314

Mediterranean fruit fly: Selected references - 1950-1955 769, 1960-1966 729, 1967-1969 702, 1970-1971 743

Method of determining the relative importance of economically important insects 785

Periodical cicadas: Outlook for 1972 369

Pink bollworm: Collections of moths in a light trap, 1953 to 1971 448, quarantine map 712

Preparation of notes for Cooperative Economic Insect Report 313

State survey coordinators 68

Summary of insect conditions in the U.S. - 1971. Bean and peas 140. Beneficial insects 178-180. Citrus 154-155. Cole crops 140. Contributors 198-199. Corn, sorghum, sugarcane 89-96. Cotton 120-122. Deciduous fruits and nuts 150-154. Federal and State plant protection programs 63-67. Forage legumes 112-118. Forest insect highlights 195-198. Forest and shade trees 169-174. General vegetables 141. Hawaii 45-49. Households and structures 178. Introduction 63. Man and animals 174-178. Miscellaneous field crops 124. Ornamentals 156-157. Peanuts 120. Potatoes, tomatoes, peppers 138-140. Small fruit 155-156. Small grains 96-98. Soybeans 118-120. Special insects of regional significance 81-88. Sugar beets 123-124. Tobacco 122-123. Turf, pastures, rangeland 98-99.

Survey methods: Selected references for last half of 1970, part XXXV 48

Scientific names should be used to locate all page references, except for those insects or groups of insects where scientific names were not reported. In such instances, page references will be found under common names. A combination of common and scientific names of an insect or pest may not appear on the page referred, but one or the other will be present. Underlined page numbers represent references to "Summary of Insect Conditions in the United States - 1971." Light trap collections for a particular species are listed at the end of pagination for that species under this heading.

U.S. DEPT. OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY
RECEIVED
APR 23 1973
PROCUREMENT SERVICE
CURRENT SERIALS SECTION

Acalitus vaccinii (blueberry bud mite)
 156, 166
Acalymma vittata (striped cucumber beetle)
 253, 320, 356
Achatina fulica (giant African snail)
 7, 48, 61, 131, 246, 414, 487, 529, 567,
 625, 686, 714, 767, 783
Acinia picturata (sourbush seed fly)
 49
Acleris floverana (western blackheaded
 budworm) 195
Acleris minuta (a tortricid moth)
 12
Acleris variana (eastern blackheaded
 budworm) 170
Acrobasis caryae (pecan nut casebearer)
 153, 255, 270, 357, 387, 408, 427, 441,
 482, 621
Acrolepia assectella (leek moth)
 33, 45, 531
Acronicta americana (American dagger moth)
 605
Acrosternum hilare (green stink bug)
 119, 577, 617, 679, 695
Aculops lycopersici (tomato russet mite)
 680
Aculus comatus (an eriophyid mite)
 10, 150, 154, 441
Acutaspis morrisonorum (a diaspidid scale)
 763
Acyrtosiphon festucae (an aphid)
 10
Acyrtosiphon pisum (pea aphid)
 19, 31, 59, 78, 88, 108, 117, 128, 145,
 146, 164, 178, 190, 212, 229, 241, 253,
 269, 279, 304, 319, 332, 353, 404, 407,
 424, 439, 456, 477, 481, 499, 521, 540,
 557, 576, 600, 606, 616, 623, 635, 659,
 679, 710, 723, 749, 762, 778
Acyrtosiphon solani (foxglove aphid)
 460
Adalia bipunctata (twospotted lady beetle)
 178, 582
Adelges cooleyi (Cooley spruce gall aphid)
 255, 307, 483, 639, 752
Adelges piceae (balsam woolly aphid)
 197
Adelges tsugae (an adelgid)
 109, 111, 129, 130
Adelphocoris lineolatus (alfalfa plant bug)
 750, 758
Adoretus sinicus (Chinese rose beetle)
 48, 339, 445, 666, 699, 783
Aedes spp. (mosquitoes)
 7, 44, 131, 177, 216, 256, 281, 310, 321,
 337, 360, 363, 389, 411, 428-429, 463,
 505, 543, 625, 683, 727
Aedes abserratus
 12, 230, 256, 281
Aedes canadensis
 215, 281
Aedes cantator (brown saltmarsh mosquito)
 579, 582
Aedes cinereus
 281, 582
Aedes diantaeus
 428
Aedes dorsalis
 337, 545, 579, 582, 641, 664, 683
Aedes excrucians
 230, 256, 272, 281
Aedes fitchii
 230, 256, 281
Aedes flavescens
 281
Aedes nigromaculis
 442, 545
Aedes riparius
 12, 281
Aedes sollicitans (saltmarsh mosquito)
 528, 579, 582
Aedes spencerii
 256, 281
Aedes sticticus
 281, 528
Aedes stimulans
 230, 256, 272, 281, 528, 641, 643
Aedes triseriatus
 177, 215, 463, 528
Aedes trivittatus
 528, 697
Aedes vexans
 177, 281, 337, 360, 389, 411, 428-429,
 463, 505, 528, 564, 582, 641, 663, 664,
 683
Aedes vexans nocturnus
 7, 44, 48, 131, 216, 310, 363, 507, 543,
 625, 727, 783
Agenectettix deorum (a grasshopper)
 65, 193, 273, 338, 460, 529, 546, 550,
 685, 698, 741
Agkistrocerus megerlei (a tabanid)
 12
Agrius anxius (bronze birch borer)
 156, 321, 682, 685
Agromyza sp. (a leaf blotch-miner fly)
 117
Agromyza frontella (alfalfa leaf blotch-
 miner) 132, 241, 304, 319, 332, 383,
 386, 405, 424, 439, 456, 478, 499, 539,
 557, 561, 576, 600, 616, 620, 659
Agromyza parvicornis (corn blotch
 leafminer) 303, 351
Agrotis ipsilon (black cutworm)
 89, 92, 119, 123, 242, 318, 330, 351,
 381, 403, 414. Light traps: 9, 21, 33,
 111, 186, 217, 233, 247, 263, 274, 284,
 311, 312, 324, 340-341, 364-365, 393-394,
 416-417, 432-433, 446-447, 468-469, 488-
 489, 508-509, 532-533, 548-549, 568-569,
 586-587, 608-609, 626-627, 645-646,
 667-668, 687, 700, 715, 726, 742, 753
Agrotis orthogonia (pale western cutworm)
 211, 331, 477
Alaurocybotus occiduus (a whitefly)
 438, 694
Alaurothrixus floccosus (woolly whitefly)
 43, 194, 392, 444, 466, 507, 547, 584,
 741, 766
 Alfalfa leaf blotch-miner
 (Agromyza frontella)
 Alfalfa caterpillar
 (Colias eurytheme)
 Alfalfa looper
 (Autographa californica)
 Alfalfa plant bug
 (Adelphocoris lineolatus)
 Alfalfa seed chalcid
 (Bruchophagus roddi)
 Alfalfa snout beetle
 (Brachyrhinus ligustici)
 Alfalfa webworm
 (Loxostege commixtalis)
 Alfalfa weevil
 (Hypera postica)
 Alkali bee
 (Nomia melanderi)
 Alphitobius diaperinus (lesser mealworm)
 781, 782
Alsophila pometaria (fall cankerworm)
 172, 336, 388, 484
Altica ignita (a flea beetle)
 280
Amathes c-nigrum (spotted cutworm)
 242, 253, 477, 557
Amblyomma americanum (lone star tick)
 308, 414, 442, 505, 528, 582
Amblyomma maculatum (Gulf Coast tick)
 280, 282
 American black flour beetle
 (Tribolium audax)
 American dagger moth
 (Acronicta americana)
 American dog tick
 (Dermacentor variabilis)
 American grasshopper
 (Schistocerca americana)
Amitus sp. (a platygasterid wasp)
 444

- Amphimallon majalis (European chafer)
63, 322, 464
- Amphitornus coloradus (a grasshopper)
64, 338, 430, 546
- Amphitornus coloradus ornatus
(a grasshopper) 529
- Anabrus simplex (Mormon cricket)
66, 231, 338, 391, 413, 506, 642, 665
- Anacamptodes fragilaria (koa haele looper)
48, 246, 754
- Anagrapha falcifera (celery looper)
334
- Ananca kanack (an oedemerid)
10, 45
- Anaples flavipes (a mymarid wasp)
63
- Anaphothrips obscurus (grass thrips)
382
- Anarsia lineatella (peach twig borer)
253, 408
- Anastrepha suspensa (Caribbean fruit fly)
153, 172, 193
- Angoumois grain moth
(Sitotroga cerealella)
- Anisota senatoria (orangestriped oakworm)
622, 663, 682, 696, 701, 763
- Anisota stigma (spiny oakworm)
712
- Anomala obliqua (pine chafer)
441, 445
- Anomis flava (hibiscus caterpillar)
363
- Anopheles spp. (mosquitoes)
389, 505
- Anopheles quadrimaculatus (common malaria
mosquito) 389
- Anthonomus eugeni (pepper weevil)
45, 191, 258, 333, 467, 644, 767, 783
- Anthonomus grandis (boll weevil)
31, 35, 120, 121, 164, 187, 200, 213,
242, 259, 279, 305, 320, 333, 354, 366-
368, 384, 405, 406, 425, 439-440, 458,
478-479, 500-501, 522, 541, 558-559,
577, 589, 601, 618, 637, 660, 680, 711,
750
- Anthonomus signatus (strawberry weevil)
358
- Anthophila pariana (apple-and-thorn
skeletonizer) 525
- Anthrenus coloratus (a dermestid beetle)
741, 766
- Antianthe expansa (a membracid)
12, 45, 80, 246, 273, 323, 782, 783
- Anticarsia gemmatalis (velvetbean
caterpillar) 119, 600, 601, 613, 636,
657, 679, 710, 750
- Antonina graminis (Rhodesgrass scale)
635, 694
- Anuraphis maidiradicis
See Aphis maidiradicis
- Aonidiella aurantii (California red
scale) 155
- Aonidiella citrina (yellow scale)
42, 79, 129, 165, 213, 243, 270, 306,
358, 409, 462, 483, 526, 580, 638
- Apanteles congregatus (a braconid)
88, 583
- Apanteles scutellaris (a braconid)
767
- Aphelinus sp. (a eulophid wasp)
401
- Aphelinus maidis (a eulophid wasp)
363
- Aphidius sp. (a braconid)
557, 606
- Aphids
42, 129, 154, 165, 189, 213, 243, 270,
385
- Aphis fabae (bean aphid)
12, 561
- Aphis gossypii (melon aphid)
7, 191, 242, 305, 354, 524
- Aphis hederæ (ivy aphid)
12, 157, 255
- Aphis maidiradicis (corn root aphid)
330
- Aphis nasturtii (buckthorn aphid)
460, 578
- Aphis pomi (apple aphid)
153, 165, 243, 357, 408, 482
- Aphis spiraeicola (spirea aphid)
543
- Aphrophora parallela (pine spittlebug)
171, 281, 307, 441
- Aphrophora saratogensis (Saratoga
spittlebug) 171, 197
- Aphycus fumipennis (an encyrtid wasp)
781, 782
- Apion antiquum (South African emex
weevil) 49, 111
- Apion longirostre (hollyhock weevil)
60, 61
- Apion ulicis (a gorse weevil)
49
- Apis mellifera (honey bee)
43, 110, 148, 167, 180, 215, 231, 322,
684, 753
- Apis mellifera adansonii (an African
honey bee) 158
- Aphycus mexicanus (an encyrtid wasp)
12, 45
- Apotoforma sp. (a tortricid moth)
232, 585
- Apple-and-thorn skeletonizer
(Anthophila pariana)
- Apple aphid
(Aphis pomi)
- Apple curculio
(Tachypterellus quadrigibbus)
- Apple grain aphid
(Rhopalosiphum fitchii)
- Apple maggot
(Rhagoletis pomonella)
- Apple mealybug
(Phenacoccus aceris)
- Aprostocetus diplosidis (an eulophid
wasp) 193, 781
- Archips argyrosipilus (fruittree
leafroller) 427, 638
- Archips rosanus (a tortricid moth)
243, 638, 643
- Archips semiferanus (a tortricid moth)
697, 739
- Argyrotaenia pinatubana (pine tube moth)
12
- Argyrotaenia velutinana (redbanded
leafroller) 270, 280
- Aristotelia sp. (a gelechiid moth)
699
- Army cutworm
(Euxoa auxiliaris)
- Armyworms
477, 499, 557
- Armyworm
(Pseudaletia unipuncta)
- Aroga websteri (sagebrush defoliator)
12, 352, 403, 477, 498, 722
- Arphia conspersa (a grasshopper)
257, 439
- Artichoke plume moth
(Platyptilia carduidactyla)
- Ashgray blister beetle
(Epicauta fabricii)
- Asiatic oak weevil
(Cyrtopistomus castaneus)
- Asiatic rice borer
(Chilo suppressalis)
- Asparagus aphid
(Brachycolus asparagi)
- Asparagus beetle
(Crioceris asparagi)
- Aspidiotus destructor (coconut scale)
48, 61, 131, 194, 232, 363, 414, 431,
543, 625, 644, 666, 699, 714, 754
- Aster leafhopper
(Macrostelus fascifrons)
- Asteromyia modesta (a acidomyiid)
4, 6

Asyleiopus variegatus (a cerambycid beetle) 784
Aulocara elliotti (a grasshopper) 64, 65, 309, 338, 412, 429-430, 529, 685
Autographa californica (alfalfa looper) 191, 212, 229, 269, 477, 694
Azalea lace bug
(Stephanitis pyrioides)
Azya luteipes (a lady beetle) 47, 194

B

Bagworm
(Thyridopteryx ephemeraeformis)
Balsam twig aphid
(Mindarus abietinus)
Balsam woolly aphid
(Adelges piceae)
Banded sunflower moth
(Phalonia hospes)
Bandedwing whitefly
(Trialeurodes abutilonea)
Banks grass mite
(Oligonychus pratensis)
Bark beetles
195, 196
Barley thrips
(Limothrips denticornis)
Barnacle scale
(Ceroplastes cirripediformis)
Bathyplectes sp. (an ichneumon wasp) 252, 331, 384
Bathyplectes anurus (an ichneumon wasp) 179, 322, 334, 337, 412
Bathyplectes curculionis (an ichneumon wasp) 112, 115, 179, 252, 361, 383, 412, 456, 781
Bathyplectes stenostigma (an ichneumon wasp) 438, 528, 534
Bean aphid
(Aphis fabae)
Bean fly
(Melanagromyza phaseoli)
Bean leaf beetle
(Cerotoma trifurcata)
Bean pod borer
(Maruca testulalis)
Bedellia orchilella (sweetpotato leafminer) 168, 194, 310
Beet armyworm
(Spodoptera exigua)
Beet leafhopper
(Circulifer tenellus)
Beet webworm
(Loxostege sticticalis)
Bembecia marginata (raspberry crown borer) 724
Bemisia giffardi (Giffard whitefly) 585
Bertha armyworm
(Mamestra configurata)
Berytinus minor (a stilt bug) 685
Birch leafminer
(Femusa pusilla)
Birch skeletonizer
(Bucculatrix canadensisella)
Black blister beetle
(Epicauta pennsylvanica)
Black carpenter ant
(Camponotus pennsylvanicus)
Black cherry aphid
(Myzus cerasi)
Black citrus aphid
(Toxoptera aurantii)
Black cutworm
(Agrotis ipsilon)
Black horse fly
(Tabanus atratus)
Blackmargined aphid
(Monellia costalis)

Black pecan aphid
(Tinocallis caryaefoliae)
Black pineleaf scale
(Nuculaspis californica)
Black scale
(Saissetia oleae)
Black swallowtail
(Papilio polyxenes asterius)
Black thread scale
(Ischnaspis longirostris)
Black turpentine beetle
(Dendroctonus terebrans)
Blissus insularis (southern chinch bug) 22, 659, 665
Blissus leucopterus hirtus (hairy chinch bug) 643
Blissus leucopterus leucopterus (chinch bug) 95, 98, 99, 163, 227, 251, 268, 382, 403, 423, 456, 539, 634, 777
Blueberry bud mite
(Acalitus vaccinii)
Blueberry maggot
(Rhagoletis mendax)
Bluegrass billbug
(Sphenophorus parvulus)
Boll weevil
(Anthonomus grandis)
Bombotelia jocosatrix (large mango tip borer) 46, 111, 216, 273, 783
Boopedon rubilum (a grasshopper) 338
Botettix argentatus (a grasshopper) 685
Bothynus gibbosus (carrot beetle) 501
Boxelder leafroller
(Gracillaria nequidella)
Boxwood leafminer
(Monarthropalpus buxi)
Brachycolus asparagi (asparagus aphid) 12, 141
Brachymeria intermedia (a chalcid wasp) 698
Brachymeria obscurata (a chalcid) 467
Brachyrhinus cribricollis (a weevil) 585
Brachyrhinus ligustici (alfalfa snout beetle) 304, 319, 332
Brevicoryne brassicae (cabbage aphid) 724
Brevipalpus lewisi (citrus flat mite) 503
Broad mite
(Polyphagotarsonemus latus)
Bronze birch borer
(Agrilus anxius)
Brown citrus aphid
(Toxoptera citricida)
Brown dog tick
(Rhipicephalus sanguineus)
Brown garden snail
(Helix aspersa)
Brown recluse spider
(Loxosceles reclusa)
Brown saltmarsh mosquito
(Aedes cantator)
Brown soft scale
(Coccus hesperidum)
Brown spider beetle
(Ptinus clavipes)
Brown stink bug
(Euschistus servus)
Browntail moth
(Nygmia phaeorrhoea)
Brown wheat mite
(Petrobia latens)
Bruchophagus roddi (alfalfa seed chalcid) 635
Bruchus pisorum (pea weevil) 140
Bucculatrix ainsliella (oak skeletonizer) 172
Bucculatrix canadensisella (birch skeletonizer) 172

Bucculatrix thurberiella (cotton
leafperforator) 12, 45, 602, 637, 723,
738, 762
Buckthorn aphid
(Aphis nasturtii)

C

Cabbage aphid
(Brevicoryne brassicae)
Cabbage looper
(Trichoplusia ni)
Cabbage maggot
(Hylemya brassicae)
Cabbage webworm
(Hellula rogatalis)
Cactoblastis cactorum (a cactus moth)
49
Caenurgina erechtea (forage looper)
722
Cales sp. (a chalcid wasp)
444
California fivespined ips
(Ips confusus)
California flatheaded borer
(Melanophila californica)
California oakworm
(Paryzanidia californica)
California red scale
(Aonidiella aurantii)
Caliroa cerasi (pearslug)
153, 461, 503, 621
Caliroa lineata (a sawfly)
544, 550
Callopietria sp. (a noctuid moth)
49
Calomycterus setarius (a Japanese
weevil) 457, 521
Calosoma scrutator (a carabid beetle)
171
Cannula pellucida (clearwinged grass-
hopper) 64, 322, 338, 361, 362, 391,
412, 429, 443, 465, 486, 546, 565, 664
Camponotus caryae discolor (carpenter
ant) 79
Camponotus pennsylvanicus (black
carpenter ant) 79
Cane leafhopper egg sucker
(Tytthus mundulus)
Cardiophorus spp. (elaterids)
644
Cardiophorus stolatus (an elaterid)
643, 644
Caribbean fruit fly
(Anastrepha suspensa)
Carmine spider mite
(Tetranychus cinnabarinus)
Carneccephala sagittifera (a cicadellid)
579, 585, 625
Carolina grasshopper
(Dissosteira carolina)
Carpenter ant
(Camponotus caryae discolor)
Carpophilus lugubris (dusky sap beetle)
475, 574, 579
Carrot beetle
(Bothynus gibbosus)
Carulaspis juniperi (Juniper scale)
12
Casinarina infesta (an ichneumon wasp)
80, 467
Cattle lice
130, 148, 256, 780
Cattle tail louse
(Haematopinus quadripertus)
Caulocampus acericaulis (maple petiole
borer) 427, 431
Cecidomyia texana (guar midge)
117, 616, 679
Celama spp. (webworms)
84

Celama sorghiella (sorghum webworm)
93, 95, 555, 599, 615, 658, 694, 710,
721
Celery looper
(Anagrapta falcifera)
Cephus cinctus (wheat stem sawfly)
27, 678
Ceramica picta (zebra caterpillar)
619
Ceratitis capitata (Mediterranean fruit
fly) 702, 729-734, 743-746, 769-774
Ceratocombus vagans (a jumping ground
bug) 12
Cereal leaf beetle
(Oulema melanopus)
Cercoceus kalmiae (a pit scale)
157
Cercoceus parrotti (a soft scale)
12
Ceroplastes cirripediformis (barnacle
scale) 7, 49, 108, 339
Ceroplastes floridensis (Florida wax
scale) 621
Cerotoma trifurcata (bean leaf beetle)
119, 304, 333, 355, 384, 407, 457,
476, 540, 558, 617, 636, 660, 679, 695
Ceutorhynchus litura (a weevil)
634
Chaetocnema confinis (sweetpotato flea
beetle) 320, 356, 386, 681
Chaetocnema pulicaria (corn flea beetle)
239, 276, 302
Chaetophloeus heterodoxus (a bark
beetle) 13
Chaff scale
(Parlatoria pergandii)
Chalcid wasps
99
Chalcodermus aeneus (cowpea curculio)
502, 524
Chelopistes meleagridis (large turkey
louse) 13
Cherry fruit fly
(Rhagoletis cingulata)
Chilocorus nigrinus (a lady beetle)
644
Chilocorus stigma (twicestabbed lady
beetle) 179
Chilo suppressalis (Asiatic rice borer)
363
Chinch bug
(Blissus leucopterus leucopterus)
Chinese rose beetle
(Adoretus sinicus)
Chlorochroa ligata (conchuela)
423, 476, 497, 520, 539, 542, 556,
599
Choristoneura conflictana (large aspen
tortrix) 172, 359, 410
Choristoneura fumiferana (spruce
budworm) 169, 197, 388, 427, 441,
483, 503
Choristoneura occidentalis (western
spruce budworm) 169, 195, 196
Choristoneura pinus (jack pine budworm)
169, 483
Chorthippus curtipennis (a grasshopper)
529
Chortinaspis subchortina (an armored
scale) 498, 502
Chromaphis juglandicola (walnut aphid)
154, 179
Chrysodeixis chalcites (a noctuid moth)
392, 467
Chrysolina spp. (chrysolimid beetles)
585
Chrysolina quadrigemina (a klamathweed
beetle) 179, 390
Chrysomphalus aonidum (Florida red
scale) 20, 216, 604, 666, 783
Chrysopa spp. (green lacewings)
565, 606, 633
Chrysopa californica (a lacewing)
606

Cinara canadensis (a conifer aphid)
 712, 714
Cinara carolina (a conifer aphid)
 47, 168, 363
Cinara pinivora (an aphid)
 13
Cinara strobii (white pine aphid)
 178, 725
Circulifer tenellus (beet leafhopper)
 3, 31, 83, 189, 211, 227, 267, 301, 317,
 349, 401, 709, 765
 Citrus flat mite
 (Brevipalpus lewisi)
 Citrus red mite
 (Panonychus citri)
 Citrus rust mite
 (Phyllocoptruta oleivora)
 Citrus thrips
 (Scirtothrips citri)
 Citrus whitefly
 (Dialeurodes citri)
Glastoptera achatina (pecan spittlebug)
 482
Clavaspis subsimilis (an armored scale)
 13
 Clearwinged grasshopper
 (Camula pellucida)
 Clouded plant bug
 (Neurocolpus nubilis)
 Cloudywinged whitefly
 (Dialeurodes citrifolii)
 Clover leaf weevil
 (Hypera punctata)
 Clover seed weevil
 (Miccotromus picirostris)
Coccidoxenus mexicanus (an encyrtid
 wasp) 49
Coccinella novemnotata (a lady beetle)
 443
Coccinella transversoguttata (transverse
 lady beetle) 178, 443
Coccinella trifasciata (a lady beetle)
 178
Coccus hesperidum (brown soft scale)
 46
Coccus viridis (green scale)
 409, 462, 483, 526, 581, 639
Cochliomyia hominivorax (screwworm)
 5, 19, 32, 42, 60, 79, 129, 147, 166,
 174, 192, 214, 230, 244, 256, 271, 281,
 326, 360, 388, 410, 428, 441, 463, 484,
 504, 527, 545, 563, 581, 605, 622, 640,
 663, 683, 697, 713, 725, 740, 752, 780,
 784
 Coconut leafroller
 (Hedylepta blackburni)
 Coconut scale
 (Aspidiotus destructor)
 Codling moth
 (Laspeyresia pomonella)
Coelophora inaequalis (a lady beetle)
 46, 47, 111, 363, 431, 445
Colaspis brunnea (grape colaspis)
 119
Colemegilla maculata (a lady beetle)*
 178, 193, 308, 361, 443, 464, 485, 582,
 781
Coleophora laricella (larch casebearer)
 195
Coleotechnites milleri (lodgepole
 needleminer) 195
Coleotichus blackburniae (koa bug)
 445
Colias eurytheme (alfalfa caterpillar)
 191, 229, 353, 355, 477, 576, 600, 616,
 635, 659, 694, 710, 722
Collops spp. (melyrid beetles)
 546
 Colorado potato beetle
 (Leptinotarsa decemlineata)
 Common cattle grub
 (Hypoderma lineatum)
 Common malaria mosquito
 (Anopheles quadrimaculatus)
 Comstock mealybug
 (Pseudococcus comstocki)
Comstockiella sabalis (a diaspidid scale)
 780, 782
Concephalus spp. (grasshoppers)
 499
Conchaspis angraeci (a mealybug)
 751, 758
 Conchuela
 (Chlorochroa ligata)
 Confused flour beetle
 (Tribolium confusum)
Conoderus falli (southern potato
 wireworm) 94
Conotelus mexicanus (a sap beetle)
 728, 751
Conotrachelus nemuphar (plum curculio)
 153, 213, 335, 387
Contarinia sp. (a gall midge)
 124
Contarinia schulzi (sunflower blossom
 midge) 459, 480, 501, 523, 619
Contarinia sorghicola (sorghum midge)
 7, 31, 45, 46, 89, 93, 95, 330, 351,
 403, 423, 438, 455, 476, 497, 498, 520,
 556, 557, 599, 634, 658, 678, 710, 722,
 749, 781
 Convergent lady beetle
 (Hippodamia convergens)
 Cooley spruce gall aphid
 (Adelges cooleyi)
Coptosoma xanthogramma (a plataspid bug)
 507
Coquillettia perturbans (a mosquito)
 177, 360, 429, 463
Cordillacris cinerea (a grasshopper)
 4, 6
Cordillacris crenulata (a grasshopper)
 193
 Corn earworm
 (Heliothis zea)
 Corn flea beetle
 (Chaetocnema pulicaria)
 Corn leaf aphid (Rhopalosiphum maidis)
 41
 Corn planthopper
 (Peregrinus maidis)
 Corn root aphid
 (Aphis maidiradicis)
Coryphista meadii (a geometrid moth)
 604
Corythucha ciliata (sycamore lace bug)
 545
Corythucha confraterna (a lace bug)
 484
Corythucha montivaga (a lace bug)
 13
Cosmobaris americana (a weevil)
 619, 620
Cosymbia serrulata (kiawe flower looper)
 47
Cotinis nitida (green June beetle)
 480
 Cotton fleahopper
 (Pseudatomoscelis seriatus)
 Cotton leafperforator
 (Bucculatrix thurberiella)
 Cotton square borer
 (Strymon melinus)
 Cottonycushion scale
 (Icerya purchasi)
 Cowpea curculio
 (Chalcodermus senesus)
 Crapemyrtle aphid
 (Tinocallis kahawaluokalani)
Crioceris asparagi (asparagus beetle)
 524
Crioceris duodecimpunctata (spotted
 asparagus beetle) 356

*Also carried as Coleomegilla maculata fuscilabris in Vol. 22

- Croesia albicomana (oak leaf-tier) 172, 214, 388, 410
Cryptarcha ampla (a sap beetle) 574, 579
Cryptoblabes aliene (a pyralid moth) 46
Cryptochetum iceryae (a cryptochetid fly) 49, 60
Cryptolaemus spp. (lady beetles) 390, 464, 624, 684
Cryptolaemus montrozieri (a lady beetle) 194, 414, 431
Cryptolestes sp. (a cucujid beetle) 684
Cryptolestes pusillus (flat grain beetle) 43
Cryptorhynchus lapathi (poplar-and-willow borer) 545
 Cuban laurel thrips (Cynaikothrips ficorum)
Culex spp. (mosquitoes) 7, 44, 131, 216, 310, 363, 528, 543, 625, 683, 727
Culex pipiens pipiens (northern house mosquito) 428, 505, 606, 663, 664, 683
Culex pipiens quinquefasciatus (southern house mosquito) 7, 44, 48, 131, 216, 310, 363, 485, 507, 543, 625, 727, 783
Culex restuans (a mosquito) 664
Culex salinarius (a mosquito) 664
Culex tarsalis (a mosquito) 177, 337, 545, 579, 582, 664, 764
Culex territans (a mosquito) 664
Culicoides spp. (biting midges) 177
Culicoides furens (a biting midge) 177
Culicoides hollensis (a biting midge) 177
Culicoides spinosus (a biting midge) 177
Culicoides stellifer (a biting midge) 177
Culiseta inornata (a mosquito) 281, 337
Culiseta minnesotae (a mosquito) 579
Curculio caryae (pecan weevil) 154, 580, 621, 662, 682, 738, 762
Curinus coeruleus (a lady beetle) 727
 Cutworms 107, 354
 Cyclamen mite (Stenectarsonemus pallidus)
Cyclocephala borealis (northern masked chafer) 678
Cylas formicarius elegantulus (sweetpotato weevil) 257, 579
Cyrtopistomus castaneus (Asiatic oak weevil) 123, 427, 431, 544, 550, 620, 622, 640, 643, 697
Cyrtopeltis modestus (a plant bug) 273, 431
Cyrtorhinus fulvus (a predacious mirid bug) 45, 666
Cyrtorhinus lividipennis (a predacious mirid bug) 194
- D**
- Dacus cucurbitae (melon fly) 507
Dacus dorsalis (oriental fruit fly) 391, 584
 Damsel bugs 623
Dasychira plagiata (pine tussock moth) 166, 307, 526
Datana contracta (a notodontid moth) 13, 173
Datana integerrima (walnut caterpillar) 150, 154, 408, 427, 482, 503, 662, 712, 724
Decorosiphon corynothrix (an aphid) 231, 232
Dectes sayi (a cerambycid beetle) 13
Dectes texanus texanus (a cerambycid beetle) 78, 119, 540, 762
Deloyala guttata (mottled tortoise beetle) 386
Delphacodes propinqua (a delphacid planthopper) 635
Dendroctonus adjunctus (roundheaded pine beetle) 169, 170, 196
Dendroctonus frontalis (southern pine beetle) 4, 166, 169, 170, 196, 197, 254, 255, 410, 504, 563, 604, 622, 639, 682, 696, 724, 739, 751, 779
Dendroctonus ponderosae (mountain pine beetle) 32, 195, 196, 526, 639
Dendroctonus pseudotsugae (Douglas fir beetle) 195, 196, 358
Dendroctonus rufipennis (spruce beetle) 195, 196
Dendroctonus terebrans (black turpentine beetle) 604
Dermaecentor albipictus (winter tick) 5, 20
Dermaecentor variabilis (American dog tick) 361, 505, 546, 623
Diabrotica spp. (corn rootworms) 89, 93, 278, 455, 475, 496, 519, 538, 574, 598, 601, 614, 634, 658, 695, 722, 737, 777
Diabrotica longicornis (northern corn rootworm) 13, 89, 94, 403, 455, 475, 496, 519, 538, 556, 574, 598, 614-615, 634, 737, 749, 758, 777
Diabrotica undecimpunctata howardi (southern corn rootworm) 31, 94, 128, 304, 305, 318, 334, 342, 351, 407, 496, 574, 579, 598, 601, 658, 695, 778
Diabrotica undecimpunctata undecimpunctata (western spotted cucumber beetle) 524
Diabrotica virgifera (western corn rootworm) 13, 89, 94, 455, 475, 496, 502, 519, 538, 550, 556, 561, 574, 579, 598, 610, 614-615, 620, 634, 643, 658, 665, 695, 737, 741, 777
Diadegma insularis (an ichneumon wasp) 363
Dialeurodes spp. (whiteflies) 155
Dialeurodes citri (citrus whitefly) 255, 443
Dialeurodes citrifolii (cloudywinged whitefly) 585
 Diamondback moth (Plutella xylostella)
Diaparsis 412
Diapheromera femorata (walkingstick) 545, 563, 616, 622, 633, 780
Diaprepes abbreviatus (West Indian sugarcane root borer) 67, 643, 698
 Diaspidid scales 763
Diatraea crambidoides (southern cornstalk borer) 677, 749
Diatraea grandiosella (southwestern corn borer) 3, 92, 189, 227, 303, 351, 497, 658, 677, 685, 693, 710, 714, 721, 737, 749, 761, 776
Diatraea saccharalis (sugarcane borer) 92
Diceroprocta vitripennis (a cicada) 13
 Differential grasshopper (Melanoplus differentialis)
Diocalandra taitensis (Tahitian coconut weevil) 567

- Dioryctria zimmermani (Zimmerman pine moth) 462, 696
- Diploptera punctata (Pacific beetle) 149
- Dissosteira carolina (Carolina grasshopper) 439
- Dissosteira longipennis (High Plains grasshopper) 430
- Douglas fir beetle
(Dendroctonus pseudotsugae)
- Douglas fir tussock moth
(Hemerocampa pseudotsugata)
- Drepanoptera femoratum (a grasshopper) 65, 338, 430, 698
- Drosophila spp. (vinegar flies) 661
- Dusky sap beetle
(Carpophilus lugubris)
- Dysaphis plantaginea (rosy apple aphid) 192, 243
- Dysaphis tulipae (tulip bulb aphid) 157
- E**
- Ear tick
(Otobius megnini)
- Eastern blackheaded budworm
(Acleris variaria)
- Eastern pineshoot borer
(Eucosma gloriola)
- Eastern subterranean termite
(Reticulitermes flavipes)
- Eastern tent caterpillar
(Malacosoma americanum)
- Eburia quadrigeminata (a longhorned beetle) 622
- Ectomocoris biguttulus (a reduviid bug) 561, 567
- Eggplant flea beetle
(Epitrix fuscula)
- Egyptian alfalfa weevil
(Hypera brunneipennis)
- Elasmopalpus lignosellus (lesser cornstalk borer) 120, 351, 455, 457, 497, 499, 521, 539, 540, 542, 555, 558, 561, 577, 617, 637, 722, 777
- Elecodes spp. (false wireworms) 303
- Elimaea punctifera (narrow winged katydid) 567, 767
- Elm leaf beetle
(Pyrralta luteola)
- Emmesomyia socia (an anthomyiid fly) 10
- Empicoris orthoneuron (a reduviid) 781, 782
- Empoasca fabae (potato leafhopper) 81, 88, 302, 422, 437, 454, 474, 495, 518, 537, 555, 598, 614
- English grain aphid
(Macrosiphum avenae)
- Eotetranychus multidigituli (a spider mite) 321
- Eotetranychus sexmaculatus (sixspotted mite) 42, 79, 128, 165, 213, 243, 270
- Ephestia elutella (tobacco moth) 5, 60, 148, 723
- Epicauta spp. (blister beetles) 616
- Epicauta fabricii (ashgray blister beetle) 616
- Epicauta lemniscata (threestriped blister beetle) 457
- Epicauta occidentalis (a blister beetle) 457
- Epicauta pennsylvanica (black blister beetle) 576, 616
- Epicauta vittata (striped blister beetle) 576
- Epilachna varivestis (Mexican bean beetle) 118, 140, 353, 355, 384, 386, 405, 407, 424, 439, 457, 478, 499, 521, 524, 540, 558, 561, 576, 601, 617, 636, 660, 679
- Epinotia meritana (white fir needleminer) 359, 662
- Epiphyas postvittana (light brown apple moth) 246
- Epirimerus pyri (pear rust mite) 503
- Epitrix cucumeris (potato flea beetle) 355, 356, 542
- Epitrix fuscula (eggplant flea beetle) 531, 579
- Epitrix hirtipennis (tobacco flea beetle) 13, 122, 354, 385, 407, 425, 459, 523, 560, 578, 602, 619, 686, 714
- Eretmocerus sp. (a eulophid wasp) 444
- Eriococcus euphorbiae (a parasite) 781
- Eriophyes canestrinii (an eriophyid mite) 13
- Eriophyes litchii (an eriophyid mite) 714
- Eriophyes theospyri (an eriophyid mite) 12
- Eriosoma lanigerum (woolly apple aphid) 357, 724
- Erythroneura comes (a leafhopper) 155
- Erythroneura variabilis (a leafhopper) 214
- Estigmene acrea (saltmarsh caterpillar) 637. Light traps: 9, 131, 186, 217, 233, 247, 263, 311, 324, 340, 364-365, 393-394, 416, 432-433, 446-447, 468-469, 488-489, 508-509, 532-533, 548-549, 568-569, 587, 608-609, 626-627, 645, 646, 667, 687, 700, 726
- Esperanza texana (an alydid bug) 738, 741
- Eucelatoria armigera (a tachina fly) 49, 80, 467, 603, 783
- Eucosma gloriola (eastern pineshoot borer) 13
- Eudecatoma marylandica (an eurytomid wasp) 13, 173
- Euglandina rosea (a snail) 7
- Eupelmus popa (a eupelmid wasp) 46, 781
- European chafer
(Amphimallon majalis)
- European chafer quarantines 187
- European corn borer
(Ostrinia nubilalis)
- European crane fly
(Tipula paludosa)
- European earwig
(Forficula auricularia)
- European elm scale
(Gossyparia spuria)
- European pine sawfly
(Neodiprion sertifer)
- European pine shoot moth
(Rhyacionia buoliana)
- European red mite
(Panonychus ulmi)
- Eurytetranychus buxi (a spider mite) 604, 610
- Eurytoma gigantea (an eurytomid wasp) 99
- Eurytoma obtusiventris (an eurytomid wasp) 13, 99
- Euscelis ohausi (a leafhopper) 10
- Euschistus servus (brown stink bug) 423, 577, 711
- Eutetranychus banksi (Texas citrus mite) 42, 78, 79, 128, 154, 155, 165, 213, 243, 270, 306, 357, 408, 461, 482, 525, 580, 638
- Eutreta xanthochaeta (lantana gall fly) 625, 767

Eutrombicula belkini (a chigger mite)
13
Euxoa sp. (a cutworm)
166
Euxoa auxiliaris (army cutworm)
77, 81, 107, 127, 145, 163, 189, 211,
227, 239, 251, 277, 301, 317, 349, 381,
386, 453, 460. Light traps: 263, 274,
284, 311, 324, 340, 364, 393-394, 416,
432, 446, 468-469, 488-489, 509, 532-
533, 548-549, 569, 645, 667, 687, 715,
753
Euxoa detersa (a noctuid moth)
330
Euxoa ochrogaster (redbacked cutworm)
253, 279, 290, 355
Exenterus amictorius (an ichneumon wasp)
307
Exenterus canadensis (an ichneumon wasp)
14
Exorista scorbillans (a tachina fly)
363
Exviastis encelliae (an armored scale)
10
Eysarcoris ventralis (a pentatomid)
323

F

Face fly
(Musca autumnalis)
Fall armyworm
(Spodoptera frugiperda)
Fall cankerworm
(Alsophila pometaria)
Fall webworm
(Hyphantria cunea)
False chinch bug
(Nysius ericae)
Farona diffusa (wheat head armyworm)
Light traps: 233, 263, 311, 324, 340,
364, 393-394, 416, 432, 446, 468-469,
488, 508-509, 532-533, 568-569, 586-587,
608-609, 626, 645, 667, 687, 715
Feltia subterranea (granulate cutworm)
280, 457, 522, 541, 558, 678. Light
traps: 9, 21, 33, 111, 131, 186, 217,
233, 247, 263, 274, 284, 311, 324, 340,
364-365, 393-394, 416-417, 432-433, 446-
447, 468-469, 488-489, 508-509, 532-533,
548-549, 568-569, 586-587, 608-609, 626-
627, 645-646, 667-668, 687, 700, 715,
726, 742, 753
Fenusa pusilla (birch leafminer)
173
Fern scale
(Pinnaspis aspidistrae)
Filbert aphid
(Myzocallis coryli)
Fiorinia floriniae (an armored scale)
6, 7
Fiorinia theae (tea scale)
696
Fire ant
(Solenopsis geminata)
Fir engraver
(Scolytus ventralis)
Flat grain beetle
(Cryptolestes pusillus)
Florida red scale
(Chrysomphalus acnidum)
Florida wax scale
(Ceroplastes floridensis)
Flower thrips
(Frankliniella tritici)
Forage looper
(Caenurgina erecta)
Forcipomyia (Pterobosca) fusicornis (a
ceratopogonid fly) 283
Forest tent caterpillar
(Malacosoma disstria)
Forficula auricularia (European earwig)
604, 610, 620, 641, 643, 782

Foxglove aphid
(Acyrtosiphon solani)
Frankliniella spp. (thrips)
305, 333, 354, 405, 406
Frankliniella bispinosa (a thrips)
242
Frankliniella fusca (tobacco thrips)
120, 122, 305, 332, 354, 405
Frankliniella occidentalis (western
flower thrips) 3, 165, 229, 242, 253,
269, 467, 567, 659
Frankliniella tritici (flower thrips)
122
Fruitree leafroller
(Archips argyrospilus)
Fuller rose beetle
(Pantomorus cervinus)

G

Galeruca rudis (a chrysomelid beetle)
599, 610
Garden fleahopper
(Halticus bractatus)
Garden symphylan
(Scutigereilla immaculata)
Gargara genitsae (a treehopper)
14
Geococcus coffeae (a mealybug)
80, 763
Geocoris punctipes (a big-eyed bug)
180, 664
Giant African snail
(Achatina fulica)
Giffard whitefly
(Bemisia giffardi)
Glover scale
(Lepidosaphes gloverii)
Gnathoblea litigiosa (a reduviid bug)
741
Golden nematode
(Heterodera rostochiensis)
Gossyparia spuria (European elm scale)
109
Gracillaria negundella (boxelder leaf-
roller) 173, 359
Granulate cutworm
(Feltia subterranea)
Grape berry moth
(Paralobesia viteana)
Grape colaspis
(Colaspis brunnea)
Grape mealybug
(Pseudococcus maritimus)
Grape phylloxera
(Phylloxera vitifoliae)
Graphocephala cythura (a cicadellid)
334, 339
Graphomathus spp. (whitefringed beetles)
33, 67, 194, 245, 273, 362, 392, 444,
487, 502, 507, 530, 547, 607, 610, 617,
698
Graphomathus leucoloma fecundus (a
whitefringed beetle) 607
Graphomathus leucoloma striatus (a
whitefringed beetle) 607
Graphomathus perigrinus (a whitefringed
beetle) 507
Grapholitha molesta (oriental fruit moth)
150, 269, 335, 408, 525, 562, 724
Grapholitha prunivora (lesser appleworm)
695
Grass bugs
1, 6, 65, 322, 390, 443
Grasshoppers
4, 64, 98, 193, 257, 272, 279, 282, 309,
322, 338, 361, 382, 384, 390, 403, 412,
423, 424, 429-430, 439, 443, 457, 465,
476, 477, 486, 498, 499, 505-506, 521,
529, 539, 546, 558, 560, 565, 576, 583,
606, 624, 635, 642, 664, 684, 685, 694,
698, 725, 741, 782

Grass thrips
(*Anaphothrips obscurus*)
Grass webworm
(*Herpetogramma licarsisalis*)
Greenbug
(*Schizaphis graminum*)
Green cloverworm
(*Plathypena scabra*)
Greenhouse thrips
(*Heliothrips haemorrhoidalis*)
Greenhouse whitefly
(*Trialeurodes vaporariorum*)
Green June beetle
(*Cotinis nitida*)
Green peach aphid
(*Myzus persicae*)
Green scale
(*Coccus viridis*)
Green stink bug
(*Acrosternum hilare*)
Gryllus spp. (field crickets)
738
Guar midge
(*Cecidomyia texana*)
Gulf Coast tick
(*Amblyomma maculatum*)
Gynnocarena diffusa (a tephritid fly)
124
Gynaikothrips ficorum (Cuban laurel thrips) 531
Gypsy moth
(*Porthetria dispar*)

H

Haematobia irritans (horn fly)
147, 167, 174, 175, 193, 215, 230, 244,
256, 271, 281, 308, 321, 336, 359, 389,
410, 428, 442, 464, 484, 504, 528, 545,
564, 581, 605, 623, 641, 663, 683, 697,
713, 725, 740, 753, 764
Haematoecha rubescens (a reduviid bug)
10, 45
Haematopinus spp. (cattle lice)
5, 20, 43, 109
Haematopinus eurysternus (shortnosed
cattle louse) 5, 20, 32, 43, 79, 109,
130, 148, 256, 740, 780
Haematopinus quadripertusus (cattle tail
louse) 109
Haematopinus suis (hog louse)
32, 109, 697, 740
Hairy chinch bug
(*Blissus leucopterus hirtus*)
Halticoptera patellana (a pteromalid
wasp) 45, 310, 507, 644, 754
Halticus bractatus (garden flea hopper)
616
Harrisina brillians (western grapeleaf
skeletonizer) 155, 270, 356, 362, 391,
462, 507, 530, 547, 566, 620, 624, 685,
713, 724
Hawaiian beet webworm
(*Hymenia recurvalis*)
Hawaiian thrips
(*Taeniothrips hawaiiensis*)
Hedylecta accepta (sugarcane leafroller)
46
Hedylecta blackburni (coconut leafroller)
46, 149, 283, 323, 414, 431, 467, 567
Heliothis spp. (bollworms)
120, 121, 180, 320, 333, 354, 385, 406,
425, 440, 458, 479, 496, 499, 522, 541,
559, 577, 602, 618, 636, 660, 677, 680,
750
Heliothis paradoxa (a noctuid moth)
694
Heliothis virescens (tobacco budworm)
88, 121, 227, 320, 354, 385, 406, 425,
440, 459, 500, 519, 541-542, 577-578,
602, 618, 636, 658, 660, 677, 680, 695,
723, 762. Light traps: 131, 233, 247,

274, 284, 311, 324, 340, 364, 393, 416-
417, 432-433, 446, 468-469, 488-489,
508-509, 532-533, 548-549, 568-569, 586-
587, 608-609, 626-627, 645, 667, 687,
700, 715, 726, 742
Heliothis zea (corn earworm)
20, 31, 48, 81, 83, 88, 120, 121, 189,
211, 239, 246, 251, 273, 302, 317, 320,
329, 339, 351, 385, 392, 403, 406, 421,
438, 440, 445, 453, 458, 479, 487, 493,
500, 507, 517, 522, 531, 537, 541, 553-
554, 559-560, 567, 573, 577-578, 597,
602, 613, 618, 633, 636, 644, 657, 660,
677, 680, 686, 693, 709, 722, 738, 754,
767, 783. Light traps: 217, 247, 263,
274, 284, 311, 324, 340, 364-365, 393-
394, 416-417, 432-433, 446-447, 468-469,
488-489, 508-509, 532-533, 548-549, 568-
569, 586-587, 608-609, 626-627, 645-646,
667-668, 687, 700, 715, 726, 753
Heliothrips haemorrhoidalis (greenhouse
thrips) 80, 531, 699, 754
Helix aspersa (brown garden snail)
129
Hellula rogatalis (cabbage webworm)
45, 339, 661, 666
Hemerocampa pseudotsugata (Douglas fir
tussock moth) 170, 195, 196, 504, 562,
752, 764
Hemerocampa vetusta (western tussock moth)
307
Hemiberlesia lataniae (an armored scale)
108
Hemileuca hualapai (a saturniid moth)
130
Hemileuca oliviae (range caterpillar)
6, 67, 130, 391, 413, 481, 486, 547,
726, 753, 782
Hemispherical scale
(*Saissetia coffeae*)
Hemlock looper
(*Lambdina fiscellaria*)
Herpetogramma licarsisalis (grass webworm)
44, 46, 80, 283, 392, 445, 467, 507, 543,
603, 727, 783
Hesperophanes pubescens (a longhorned
beetle) 14
Hesperotettix speciosus (a grasshopper)
338, 430
Hessian fly
(*Mayetiola destructor*)
Heterocampa guttivitta (saddled prominent)
171, 197, 527
Heterocampa mantee (variable oakleaf
caterpillar) 169, 171, 196, 197, 544,
563, 639, 640, 663, 682, 696, 701, 712,
725, 739, 752
Heterococcus tuttlei (a mealybug)
678
Heterodera glycines (soybean cyst
nematode) 14, 33, 67, 430, 460, 531,
579, 584, 643, 753, 758
Heterodera lespedezae (a cyst nematode)
14, 118
Heterodera rostochiensis (golden nematode)
224, 264
Hexacloa hexatoma (a pteromalid wasp)
10
Hibiscus caterpillar
(*Anomis flava*)
Hickory shuckworm
(*Laspeyresia caryana*)
High Plains grasshopper
(*Dissosteira longipennis*)
Hippodamia convergens (convergent lady
beetle) 86, 97, 110, 145, 148, 178,
193, 215, 231, 245, 256, 269, 272, 411,
429, 443, 464, 473, 485, 555, 564-565,
582, 633, 684, 721
Hippodamia parenthesis (a lady beetle)
231
Hippodamia tredecimpunctata (a lady beetle)
beetle) 178
Hockeria unipunctatipennis (a chalcidid
wasp) 761

Hog louse
(*Haematopinus suis*)
Holcencyrtus physokermis (an encyrtid wasp) 179
Hollyhock weevil
(*Apion longirostre*)
Homadula anisocentra (mimosa webworm)
173, 502, 503, 527, 544, 561, 563, 581,
640, 643, 663, 665, 739
Homaledra sabalella (palm leaf skeletonizer) 14
Hmocosoma electellum (sunflower moth)
124, 501, 523, 560, 578
Honey bee
(*Apis mellifera*)
Hop aphid
(*Phorodon humuli*)
Hop looper
(*Hypena humuli*)
Horn fly
(*Haematobia irritans*)
House fly
(*Musca domestica*)
Howardia biclavata (a diaspidid scale)
778, 782
Hyalopteris pruni (mealy plum aphid)
306
Hybomitra spp. (horse flies)
245
Hybomitra nigricans (a horse fly)
245
Hylemya antiqua (onion maggot)
141
Hylemya brassicae (cabbage maggot)
356
Hylemya platura (seedcorn maggot)
33, 304
Hylephila phylaeus (a skipper)
46
Hyles lineata (whiteline sphinx)
255
Hylobius aliradicis (southern pine root weevil) 4, 6
Hylobius radicis (pine root collar weevil)
197
Hylotrupes baJulus (oldhouse borer)
178
Hylurgopinus rufipes (native elm bark beetle) 173
Hymenia recurvalis (Hawaiian beet webworm) 751
Hymenopterous parasites
179
Hypena humuli (hop looper)
480
Hypena strigata (lantana defoliator caterpillar) 283, 784
Hypera spp. (weevils)
164
Hypera brunneipennis (Egyptian alfalfa weevil) 78, 116, 190, 778
Hypera nigrirostris (lesser clover leaf weevil) 190
Hypera postica (alfalfa weevil)
4, 19, 31, 41, 59, 77, 107, 112, 113,
128, 146, 149, 163, 164, 179, 190, 211,
212, 228, 240-241, 245, 252, 268-269,
273, 278-279, 303-304, 318, 331, 332,
337, 352-353, 356, 383, 386, 404, 405,
412, 415, 423-424, 429, 431, 438-439,
456, 460, 477, 498-499, 521, 528, 539,
557, 561, 576, 600, 659, 665, 669, 679,
694, 723, 755-757, 761, 778, 781
Hypera punctata (clover leaf weevil)
108, 116, 146, 164, 190, 212
Hyphantria cunea (fall webworm)
306, 335, 408, 410, 427, 461, 482, 484,
503, 525, 562, 580, 605, 638, 639, 662,
682, 695, 697, 711, 712, 724
Hypoaspis nidicorva (a mesostigmatic mite)
310
Hypoderma spp. (cattle grubs)
176, 214, 361, 389
Hypoderma bovis (northern cattle grub)
214, 272, 389

Hypoderma lineatum (common cattle grub)
5, 20, 32, 42, 79, 109, 130, 147, 167,
176, 214, 683, 740, 752, 764, 780

Icerya purchasi (cottony-cushion scale)
49, 60, 214, 462, 642
Ichneumon wasps
282, 411
Imported cabbageworm
(*Pieris rapae*)
Imported fire ant
(*Solenopsis saevissima richteri*)
Incisitermes immigrans (lowland tree termite) 194
Indian meal moth
(*Plodia interpunctella*)
Ips spp. (bark beetles)
196, 779
Ips calligraphus (a bark beetle)
752
Ips confusus (California fivespined ips)
244
Irbisia spp. (grass bugs)
65, 443
Irbisia brachycera (a grass bug)
282, 390
Irbisia fuscipubescentis (a grass bug)
65
Irbisia pacifica (a grass bug)
65, 390, 443
Irbisia shulli (a grass bug)
65
Ischnaspis longirostris (black thread scale) 714
Itch mite
(*Sarcoptes scabiei*)
Ivy aphid
(*Aphis hederace*)

J

Jack pine budworm
(*Choristoneura pinus*)
Jack pine sawfly
(*Neodiprion pratti banksianae*)
Japanese beetle
(*Popillia japonica*)
Juniper scale
(*Carulaspis juniperi*)

K

Keiferia lycopersicella (tomato pinworm)
45, 111, 138, 543, 603, 620, 711, 767
Knappa beetle
(*Trogoderma granarium*)
Kiawe flower looper
(*Cosymbia serrulata*)
Kimminsia schwarzi (a brown lacewing)
14, 180
Klamath weed beetle
(*Chrysolina quadrigemina*)
Koa bug
(*Coleotichus blackburniae*)
Koa haole looper
(*Anacampyodes fragilaria*)
Kwania quercus (a margarid scale)
192, 194

L

Labops spp. (grass bugs)
6, 65, 167, 231, 443, 505, 529
Labops hesperius
6, 65, 167, 215, 272, 322

Labops hirtus
 6, 505
Labops utahensis (a grass bug)
 443
Lachnus salignus (an aphid)
 782, 784
 Lady beetles
 272, 337, 361, 411, 429, 443, 464, 485,
 546, 564, 582, 664
Lambdina athasaria athasaria (a geometrid
 moth) 740
Lambdina fiscellaria (hemlock looper)
 712, 714
Lambdina pellucidaria (a geometrid moth)
 662, 763
Lamenia caliginea (a fulgorid planthopper)
 11, 45
 Lantana defoliator caterpillar
 (Hypena strigata)
 Lantana gall fly
 (Eutreta xanthochaeta)
 Lantana hispid
 (Uroplata girardi)
 Lantana leaf beetle
 (Octotoma scabripennis)
 Larch casebearer
 (Coleophora laricella)
 Large aspen tortrix
 (Choristoneura conflictana)
 Large mango tip borer
 (Bombotelia jocosatrix)
 Large elm leaf beetle
 (Monocesta coryli)
 Large turkey louse
 (Chelopistes meleagridis)
Larinus carlinae (a European weevil)
 415, 418
Laspeyresia caryana (hickory shuckworm)
 482, 621, 662, 724, 738, 762
Laspeyresia pmonella (codling moth)
 150, 154, 213, 243, 269, 280, 321, 357,
 387, 408, 461, 525, 562, 580, 604.
 Light traps: 548, 609
Latrodectus hesperus (a combfooted
 spider) 623
Latrodectus variolus (a combfooted
 spider) 641, 643, 683, 685
 Lawn armyworm
 (Spodoptera mauritia)
 Leadcable borer
 (Scobicia declivis)
 Leafrollers
 197
Lecanium kunoensis (a soft scale)
 270, 273
Lecanodiaspis pruinosa (a lecanodiaspidid
 scale) 158, 214
 Leek moth
 (Acrolepia assectella)
Leipus variegatus (a cerambycid beetle)
 741
Lema trilineata (threelined potato
 beetle) 392
Lemophagus curtus (an ichneumon wasp)
 334, 337
Lepidosaphes beckii (purple scale)
 42, 79, 128, 165, 213, 243, 270, 306,
 358, 409, 461, 483, 526, 580, 604, 638,
 778, 782
Lepidosaphes gloverii (Glover scale)
 42, 79, 128, 165, 213, 243, 270, 306,
 358, 409, 461, 483, 526, 580, 638, 778,
 782
Lepidosaphes pini (an armored scale)
 14, 45
Lepidosaphes ulmi (oystershell scale)
 357, 752
Leptinotarsa decemlineata (Colorado
 potato beetle) 138, 253, 280, 305,
 320, 355, 385, 407, 426, 440, 459, 480,
 524, 542, 560
Leptobyrsa decora (a tingid bug)
 283, 431, 727
Leptopterna dolabrata (meadow plant bug)
 98
 Lesser appleworm
 (Grapholitha prunivora)
 Lesser clover leaf weevil
 (Hypera nigrirostris)
 Lesser cornstalk borer
 (Elaemopalpus lignosellus)
 Lesser grain borer
 (Rhyzopertha dominica)
 Lesser mealworm
 (Alphitobius diaperinus)
 Lesser peachtree borer
 (Synanthedon pictipes)
Leucogonia californica (a gelechiid moth)
 3, 78
Leucophaea maderae (Madeira cockroach)
 782
Leucopis militia (a chamaemyiid fly)
 258
Leucopis nigraluna (a chamaemyiid fly)
 258, 727, 767
Leucopis ocellaris (a chamaemyiid fly)
 11
 Light brown apple moth
 (Epiphyas postvittana)
Limothrips denticornis (barley thrips)
 98, 303
Lindorus lophanthae (a lady beetle)
 48, 61, 131, 414, 644, 666, 754
Linognathus vituli (longnosed cattle
 louse) 43
Liothrips urichi (a thrips)
 603, 714
Liriomyza spp. (leafminer flies)
 20, 33, 44, 78, 80, 111, 363, 392, 414,
 431, 445, 467, 531, 543, 567, 603, 644,
 666, 686, 699, 714, 727, 754, 767, 783
Liriomyza brassicae (serpentine leafminer)
 78
Liriomyza munda (vegetable leafminer)
 165
Listroderes costirostris obliquus
 (vegetable weevil) 78
Lithocolletis robinella (a gracillariid
 moth) 682
 Locust leafminer
 (Xenochalepus dorsalis)
 Lodgepole needleminer
 (Coleotechnites milleri)
 Lone star tick
 (Amblyomma americanum)
Longitarsus jacobaeae (a flea beetle)
 179, 765
Longitarsus waterhousei (a flea beetle)
 531
Longiunguis sacchari (sugarcane aphid)
 754
 Longnosed cattle louse
 (Linognathus vituli)
 Longtailed mealybug
 (Pseudococcus longispinus)
Lopholeucaspis japonica (an armored
 scale) 14
Loxagrotis albicosta (western bean
 cutworm) 93, 520, 556, 599, 677, 685
Loxosceles reclusa (brown recluse spider)
 178, 256, 442, 445, 579, 582, 780
Loxosceles rufescens (a scytotid spider)
 460, 464
Loxostege commixtalis (alfalfa webworm)
 123, 124, 229
Loxostege sticticalis (beet webworm)
 123, 124, 279, 426. Light traps: 394,
 416, 432, 446, 469, 489, 509, 533, 548
Lyctus sp. (a powderpost beetle)
 411
Lyctus brunneus (a powderpost beetle)
 168, 781
Lygus spp. (lygus bugs)
 117, 163, 165, 279, 332, 353, 384, 406,
 521, 540, 560
 Lygus bugs
 161, 162
Lygus lineolaris (tarnished plant bug)
 128, 153, 242, 280, 332, 353, 384, 405,
 409, 738, 778

Lysiphlebus testaceipes (a braconid wasp)
46, 86, 110, 148, 179, 193, 363, 454,
473, 495, 505, 518, 531, 554, 721

M

Macrosiphum avenae (English grain aphid)
19, 85, 97, 127, 145, 163, 189, 331,
455, 575, 776

Macrosiphum euphorbiae (potato aphid)
140, 459, 460, 578

Macrostelus fascifrons (aster leafhopper)
83, 211, 251, 268, 301, 307, 329, 349,
381, 401, 421, 453, 737

Madeira cockroach
(Leucophaea maderae)

Magdicada spp.
308, 359

Magdicada septendecim (periodical
cicada) 271, 281, 308, 321, 359,

Magdicada tredecim
308, 359

Maize billbug
(Sphenophorus maidis)

Malacosoma spp. (tent caterpillars)
129

Malacosoma americanum (eastern tent
caterpillar) 32, 129, 147, 166, 171,
192, 214, 244, 255, 271, 640

Malacosoma californicum (western tent
caterpillar) 190, 196, 308

Malacosoma disstria (Forest tent
caterpillar) 172, 196, 214, 255, 271,
282, 307, 764

Malacosoma incurvum discoloratum (a tent
caterpillar) 230

Mamestra configurata (bertha armyworm)
477, 499, 558, 750

Manduca spp. (hornworms)
31, 88, 583

Manduca quinquemaculata (tomato hornworm)
88. Light traps: 247, 311, 340, 393-
394, 416-417, 432-433, 446-447, 468-
469, 488-489, 508-509, 533, 549, 568-
569, 586-587, 608-609, 626-627, 645,
667-668, 687, 700, 715

Manduca sexta (tobacco hornworm)
31, 88, 385, 406, 426, 459, 475, 496,
555, 578. Light traps: 247, 284, 340,
393-394, 417, 432-433, 446, 468-469,
488, 508-509, 532-533, 548-549, 568-569,
586-587, 608-609, 626-627, 645, 667-668,
687, 715

Maple leafcutter
(Paraclemensia acerifoliella)

Maple petiole borer
(Caulocampus acericaulis)

Maruca testulalis (bean pod borer)
363

Meyetiola destructor (Hessian fly)
3, 96, 190, 240, 248, 303, 331, 352,
455, 539, 575, 599, 615, 749

McDaniel spider mite
(Tetranychus mcDanieli)

Meadow plant bug
(Leptopterna dolabrata)

Meadow spittlebug
(Philaenus spumarius)

Mealybugs
42, 243, 270, 307, 358, 409, 462, 483,
526, 581

Mealy plum aphid
(Hyalopterus pruni)

Mediterranean fruit fly
(Ceratitidis capitata)

Megachile sp. (a leafcutting bee)
666

Megachile concinna
14

Megalopyge opercularis (puss caterpillar)
173

Megaphragma mymaripenne (a trichogrammatid
wasp) 699

Melanagromyza phaseoli (bean fly)
33, 45, 49, 61, 131, 258, 310, 487, 507,
531, 644, 699, 754, 767, 784

Melanaspis obscura (obscure scale)
130, 156, 725

Melanophila californica (California
flatheaded borer) 244

Melanoplus spp. (grasshoppers)
117, 120, 193, 338, 362, 413, 423, 465,
486, 506, 539, 565, 583, 607

Melanoplus aridus (a grasshopper)
65

Melanoplus bivittatus (two-striped
grasshopper) 64, 257, 272, 282, 309,
322, 338, 362, 390-391, 412-413, 429-
430, 443, 465, 486, 506, 529-530, 565,
606, 624, 664, 685, 698

Melanoplus cinereus cinereus
529

Melanoplus confusus
439, 443

Melanoplus dawsoni
546

Melanoplus differentialis (differential
grasshopper) 64, 65, 98, 338, 390, 430,
443, 521, 606, 607, 685, 698

Melanoplus femurrubrum (redlegged grass-
hopper) 64, 65, 98, 117, 362, 382, 390,
413, 439, 457, 465, 477, 486, 521, 530,
546, 558, 583, 606, 624, 685, 698

Melanoplus franciscanus
65

Melanoplus keeleri
443

Melanoplus occidentalis
338

Melanoplus packardii (Packard grasshopper)
64, 117, 338, 390, 443, 465, 506, 530,
664

Melanoplus sanguinipes (migratory grass-
hopper) 64, 65, 117, 257, 272, 282,
309, 322, 338, 361, 362, 390, 391, 412,
413, 429, 430, 443, 457, 465, 477, 486,
506, 529, 530, 546, 565, 624, 664, 698

Melanoplus yarrowii
685

Melanotus communis (a wireworm)
94, 278, 351

Melastoma borer
(Selca brunella)

Melipotis indomita (a noctuid moth)
47, 168, 216, 232, 273, 310, 323, 431,
487, 603, 686, 754

Melon aphid
(Aphis gossypii)

Melon fly
(Dacus cucurbitae)

Melophagus ovinus (sheep ked)
272

Melormenis antillarum (a flatid bug)
46, 392

Merchant grain beetle
(Oryzaephilus mercator)

Mermiria bivittata maculipennis
(a grasshopper) 529

Meromyza americana (wheat stem maggot)
303, 351

Metaseiulus occidentalis (a phytoseiid
mite) 480, 606

Meteorus laphygmae (a braconid wasp)
273, 783

Metroptera roeseli (a grasshopper)
481, 579

Mexican bean beetle
(Epilachna varivestis)

Microtromus picirostris (clover seed
weevil) 353

Microctonus aethiops (a braconid wasp)
172, 429, 431, 498

Microctonus colesi
179, 231, 232

- Microlarinus lareynii (a puncturevine seed weevil) 179, 429, 431, 502, 505
Microlarinus lypriformis (a puncturevine stem weevil) 42, 232, 323, 334, 337, 467, 546, 550, 585
 Migratory grasshopper
 (Melanoplus sanguinipes)
 Mimosa webworm
 (Homadaula anisocentra)
Mindarus abietinus (balsam twig aphid) 321
Mocis latipes (a grassworm) 98
Monarthropalpus buxi (boxwood leafminer) 157
Monarthrum fasciatum (a bark beetle) 411, 415
Monellia spp. (yellow aphids) 662, 682
Monellia costalis (blackmargined aphid) 154, 387, 461, 662, 682
Monellopsis nigropunctata (an aphid) 154
 Monkeypod moth
 (Polydesma umbricola)
Monocesta coryli (larger elm leaf beetle) 563, 581
Monoctenus melliceps (a juniper sawfly) 460, 463
Monodontomerus dentipes (a Torymid wasp) 307
Montandoniola moraguesi (an anthocorid bug) 531
 Mormon cricket
 (Anabrus simplex)
 Mosquitoes
 193, 215, 230, 256, 272, 281, 321, 337, 360, 363, 389, 411, 428, 442, 463, 485, 505, 528, 545, 564, 579, 606, 623, 641, 663, 664, 683, 697, 764
 Mottled tortoise beetle
 (Deloyala guttata)
 Mountain pine beetle
 (Dendroctonus ponderosae)
 Mourningcloak butterfly
 (Nymphalis antiopa)
 Mulberry whitefly
 (Tetraleurodes mori)
Musca autumnalis (face fly) 147, 174, 175, 245, 356, 360, 389, 410, 428, 442, 463, 484, 504, 527, 545, 563, 579, 581, 605, 610, 622, 640, 641, 643, 663, 697, 740
Musca domestica (house fly) 148, 167, 177, 231, 582
Myzocallis coryli (filbert aphid) 243
Myzus cerasi (black cherry aphid) 306
Myzus persicae (green peach aphid) 19, 41, 61, 78, 108, 123, 138, 139, 152, 166, 168, 191, 255, 306, 355, 407, 414, 440, 459, 460, 479, 480, 481, 501, 502, 523, 524, 542, 561, 578, 619, 620, 621, 644, 680, 739, 751
- N**
- Nabis spp. (damselfly bugs) 80, 110, 231, 623, 624
Nabis americanus 623
 Nantucket pine tip moth
 (Rhyacionia frustrana)
 Narrow winged katydid
 (Elimaea punctifera)
 Native elm bark beetle
 (Hylurgopinus rufipes)
 Navel orangeworm
 (Paramyelois transitella)
Neacoryphus bicrucis (a Lygaeid bug) 14, 45, 699, 701
Necrobia ruficollis (redshouldered ham beetle) 764
Nematus abbotii (a sawfly) 16, 174
Neodiprion spp. (conifer sawflies) 169, 170, 271, 280, 307
Neodiprion excitans 169, 170, 765, 781
Neodiprion lecontei (redheaded pine sawfly) 484, 504
Neodiprion nanulus nanulus (red pine sawfly) 409
Neodiprion pratti banksianae (jack pine sawfly) 169, 170, 427
Neodiprion pratti pratti 271, 280, 307
Neodiprion sertifer (European pine sawfly) 169, 170, 307, 335, 410, 605, 610
Neodiprion taedae linearis 166, 169, 170, 271, 280, 307, 310
Neolasioptera nodulosa (a cecidomyiid midge) 409, 415
Neophasia menapia (pine butterfly) 605
Nesosydne koeae (a delphacid planthopper) 754
Neurocolpus nubilis (clouded plant bug) 459, 460, 479, 481
Nezara viridula (southern green stink bug) 19, 44, 119, 149, 258, 323, 339, 414, 423, 467, 531, 617, 660, 711, 750, 767
Nicentrus saccharinus (a sugarcane weevil) 431, 475
 Noctuid moths 57, 60
Nomia melanderi (alkali bee) 180
Norape ovina (a megalopygid moth) 14
 Northern cattle grub
 (Hypoderma bovis)
 Northern corn rootworm
 (Diabrotica longicornis)
 Northern fowl mite
 (Ornithonyssus sylviarum)
 Northern house mosquito
 (Culex pipiens pipiens)
 Northern masked chafer
 (Cyclocephala borealis)
Notoedres douglasi (an itch mite) 14, 178
Nuculaspis californica (black pineleaf scale) 739
Nygmia phaeorrhoea (browntail moth) 63
Nymphalis antiopa (mourningcloak butterfly) 230
Nysius ericae (false chinch bug) 318
- O**
- Oak leaf-tier
 (Croesia albicomana)
 Oak skeletonizer
 (Bucculatrix ainliella)
Oberea bimaculata (raspberry cane borer) 462
 Obscure scale
 (Melanaspis obscura)
Octotoma scabripennis (lantana leaf beetle) 531
Odontopus calceatus (a leafmining weevil) 281, 308
Oedaleonotus enigma (a grasshopper) 64, 282, 309, 338, 361, 362, 412, 443, 460, 465, 529
Oestrus ovis (sheep bot fly) 230
 Oldhouse borer
 (Hylotrupes bafulus)

Olesicoccus coccidivora (a cicadomyiid midge) 20

Oligonychus spp. (spider mites)

387
Oligonychus aceris
321

Oligonychus bicolor
386, 387

Oligonychus ilicis (southern red mite)
386, 387

Oligonychus mangiferus
754

Oligonychus pratensis (Banks grass mite)
89, 95, 96, 99, 179, 218, 268, 382, 423,
498, 520, 539, 557, 575, 599, 615, 634,
678

Oligonychus ununguis (spruce spider mite)
192, 441

Oligosita sp. (a trichogrammatid wasp)
567

Olive scale
(Parlatoria oleae)

Oncideres cingulata (twig girdler)
697, 751

Onion maggot
(Hylemya antiqua)

Onion thrips
(Thrips tabaci)

Ooencyrtus kuwanai (an encyrtid wasp)
65, 642, 643, 664, 698, 713, 725

Opeia obscura (a grasshopper)
4, 6

Opius spp. (braconid wasps)
45, 61, 131, 258, 531, 644, 754

Opius cereus
179

Opius importatus
49, 258, 310, 507, 644, 754, 767, 784

Opius phaseoli
49, 131, 258, 310, 507, 644, 767, 784

Orangestriped oakworm
(Anisota senatoria)

Orcus chalybeus (steelblue lady beetle)
47

Orgyia rindgei (a liparid moth)
779, 782

Oriental fruit fly
(Dacus dorsalis)

Oriental fruit moth
(Grapholitha molesta)

Orius spp. (flower bugs)
180

Orius insidiosus
231

Ornithonyssus sylviarum (northern fowl mite)
272, 641, 764

Oryzaephilus mercator (merchant grain beetle) 14

Oryzaephilus surinamensis (sawtoothed grain beetle) 20, 684

Ostrinia nubilalis (European corn borer)
19, 22, 26, 27, 50, 59, 89, 107, 127,
131, 138, 140, 145, 239, 268, 277, 302,
318, 320, 330, 350-351, 382, 386, 402,
422-423, 437-438, 454-455, 475-476,
481, 496-497, 510-511, 519-520, 538,
555, 561, 575, 583, 598, 610, 615, 634,
658, 665, 677, 693, 709-710, 711, 714,
749. Light traps: 247, 263, 274, 284,
311-312, 324, 340-341, 364-365, 393-
394, 416-417, 432-433, 446-447, 468-
469, 488-489, 508-509, 532-533, 548-
549, 568-569, 586-587, 608-609, 626-
627, 645-646, 667-668, 687, 700

Otobius megnini (ear tick)
5, 178, 623, 764, 780

Oulema melanopus (cereal leaf beetle)
14, 63, 245, 256, 272, 282, 309, 310,
322, 334, 337, 361, 371-378, 386, 390,
411-412, 415, 429, 460, 464, 481, 485,
529, 582

Oystershell scale
(Lepidosaphes ulmi)

P

Pachysomoides stupidus (an ichneumon wasp) 33, 414

Pacific beetle cockroach
(Diploptera punctata)

Pacific spider mite
(Tetranychus pacificus)

Packard grasshopper
(Melanoplus packardii)

Palearcita vernata (spring cankerworm)
109, 129, 172, 255, 271, 336, 359, 388

Pale western cutworm
(Agrotis orthogonia)

Palmiculitor palmarum (palm mealybug)
194

Palm leaf skeletonizer
(Homaledra sabalella)

Palm mealybug
(Palmiculitor palmarum)

Pangaeus bilineatus (a burrowing stink bug) 120

Panonychus citri (citrus red mite)
4, 42, 78, 79, 108, 128, 165, 166, 213,
244, 270, 306, 357, 408, 461, 482, 526,
580, 638

Panonychus ulmi (European red mite)
60, 150, 151, 229, 243, 255, 280, 335,
387, 408, 427, 441, 461, 482, 525, 562,
580, 639

Pantomorus cervinus (Fuller rose beetle)
20, 149, 714

Pantomorus taeniatulus (a weevil)
762

Papaipema nebris (stalk borer)
93, 351

Papilio polyxenes asterius (black swallowtail) 637, 643

Papilio xuthus (swallowtail butterfly)
7, 11, 45, 61, 111, 149, 168, 363, 431,
487, 585, 603, 783

Paraclemensia acerifoliella (maple leafcutter) 663

Paralobesia lirioidendrana (an olethreutid moth) 15, 173

Paralobesia viteana (grape berry moth)
155, 358, 662

Paramyelois transitella (navel orangeworm) 154, 765

Parasitic wasps
781

Paratrioza cockerelli (potato psyllid)
422

Parlatoria oleae (olive scale)
751, 758

Pariatoria pergandii (chaff scale)
42, 79, 128, 165, 213, 270, 306, 358,
409, 462, 483, 526, 580, 638

Patapius spinosus (a lepto podid bug)
43

Patasson luna (a mymarid wasp)
781, 782

Pea aphid
(Acyrtosiphon pisum)

Peachtree borer
(Sanninoidea exitiosa)

Peach twig borer
(Anarsia lineatella)

Pea leaf weevil
(Sitona lineatus)

Peallius hibisci (a whitefly)
4, 6

Pearleaf blister mite
(Phytoptus pyri)

Pear psylla
(Psylla pyricola)

Pear rust mite
(Epitrimerus pyri)

Pearslug
(Caliroa cerasi)

- Pea weevil
(*Bruchus pisorum*)
- Pecan nut casebearer
(*Acrobasis caryae*)
- Pecan phylloxera
(*Phylloxera devastatrix*)
- Pecan spittlebug
(*Clastoptera achatina*)
- Pean weevil
(*Curculio caryae*)
- Pectinophora gossypiella* (pink bollworm)
6, 33, 43, 66, 194, 245, 257, 362, 444,
448-450, 466, 506, 530, 547, 566, 584,
607, 624, 642, 665, 685, 698, 713, 726,
741, 753, 766
- Pediasis mutabilis* (a sod webworm)
599
- Penthaeus major* (winter grain mite)
4, 97, 107, 127, 145, 163, 190
- Pepper weevil
(*Anthonomus eugenii*)
- Peregrinus maidis* (corn planthopper)
194, 273, 283, 487, 666, 714, 783
- Pericyma cruegeri* (a noctuid moth)
11, 15, 45
- Peridroma saucia* (variegated cutworm)
138, 140, 269, 304, 332, 440, 501, 523,
542, 558, 560, 578, 637. Light traps:
9, 21, 111, 131, 186, 217, 233, 247, 263,
274, 284, 311, 324, 340-341, 364-365,
393-394, 416-417, 432-433, 446-447, 468-
469, 488-489, 508-509, 532-533, 548-549,
568-569, 586-587, 608-609, 626-627, 645-
646, 667-668, 687, 700, 715, 726, 742,
753
- Periodical cicada
(*Magicicada septendecim*)
- Perkinsiella saccharicida* (sugarcane
leafhopper) 46
- Petrobia harti* (a spider mite)
544, 550
- Petrobia latens* (brown wheat mite)
59, 97, 99, 100, 145, 163, 190, 194, 211;
227, 241, 251, 253, 278, 279, 303, 318,
319, 320, 331, 737
- Phalonia hospes* (banded sunflower moth)
124, 619
- Phanaeus vindex* (a scarab)
411, 415
- Phenacaspis cockerelli* (an armored scale)
20, 156, 246, 686, 763
- Phenacaspis heterophyllae* (an armored
scale) 780, 782
- Phenacoccus aceris* (apple mealybug)
15
- Phenacoccus solani* (a mealybug)
763
- Philaenus spumarius* (meadow spittlebug)
241, 304, 307, 319, 326, 332, 405, 616,
694, 723
- Phlegetonia delatrix* (a noctuid moth)
216, 767
- Phliostrota quadrimaculatum* (a grass-
hopper) 65, 338, 430, 685, 698
- Phloeotribus dentifrons* (a bark beetle)
15
- Phoebis sennae* (a pierid butterfly)
15, 156
- Phorodon humuli* (hop aphid)
480
- Phrydiuchus tau* (a weevil)
179, 765
- Phryganidia californica* (California
oakworm) 255
- Phthorimaea operculella* (potato tuberworm)
138, 323, 751
- Phyllobius oblongus* (a weevil)
192, 194
- Phyllocoptruta oleivora* (citrus rust mite)
42, 78, 128, 155, 165, 213, 243, 270,
306, 357, 408, 461, 482, 525, 580, 638
- Phyllophaga* spp. (white grubs)
477, 498, 521
- Phyllophaga fimbripes*
98
- Phyllotreta cruciferae* (a cabbage flea
beetle) 333
- Phylloxera devastatrix* (pecan phylloxera)
154
- Phylloxera vitifoliae* (grape phylloxera)
155, 462, 779, 782
- Physokermes piceae* (spruce bud scale)
5, 179, 561, 562
- Phytoptus pyri* (pearleaf blister mite)
503
- Phytoseiid mites
606
- Pieris rapae* (imported cabbageworm)
131, 140, 542
- Pikonema alaskensis* (yellowheaded spruce
sawfly) 427
- Pine butterfly
(*Neophasia menapia*)
- Pine chafer
(*Anomala obliqua*)
- Pine needle sheathminer
(*Zelleria haimbachi*)
- Pine root collar weevil
(*Hyllobius radicis*)
- Pine spittlebug
(*Aphrophora parallela*)
- Pine tube moth
(*Argyrotaenia pinatubana*)
- Pine tussock moth
(*Dasychira plagiata*)
- Pinus pini* (an adelgid)
7, 20, 45, 47, 258, 727, 767
- Pink bollworm
(*Pectinophora gossypiella*)
- Pinnaaspis aspidistrae* (fern scale)
779, 782
- Pinyonia edulicicola* (a cecidomyiid midge)
15
- Pissodes strobi* (white pine weevil)
763, 766
- Pitch pine tip moth
(*Rhyacionia rigidana*)
- Plagiohammus spinipennis* (a lantana
cerambycid) 61, 392, 727
- Plant bugs
406
- Plathypena scabra* (green cloverworm)
558, 576, 600, 613, 616, 617, 679, 710,
722, 738
- Platyedra ruficornis* (redhorned grain
beetle) 765
- Platygaster obscuripennis* (a platygasterid
wasp) 15, 174
- Platynota flavedana* (a tortricid moth)
150
- Platynota stultana*
129, 640
- Platytilia carduidactyla* (artichoke plume
moth) 141
- Platytilia pica crataea* (a plume moth)
409
- Platytranychnus thujae* (a spider mite)
356, 358
- Pleolophus basizonus* (an ichneumon wasp)
307
- Plodia interpunctella* (Indian meal moth)
148, 623, 664, 765
- Plum curculio
(*Conotrachelus nenuphar*)
- Plutella xylostella* (diamondback moth)
7, 147, 323, 339, 363, 543
- Pnyxia scabiei* (potato scab gnat)
460, 620, 637, 643, 680, 711
- Podisus maculiventris* (spined soldier bug)
171
- Podotachina sorbillans* (a tachina fly)
149
- Polistes* spp. (vespid wasps)
33, 216, 783
- Polydesma umbricola* (monkeypod moth)
47, 310, 323
- Polyphagotarsonemus latus* (broad mite)
431, 567
- Popillia japonica* (Japanese beetle)
66, 273, 322, 338, 362, 391, 413, 415,

430, 460, 465-466, 486, 506, 530, 547,
565-566, 584, 642, 665, 685

Poplar-and-willow borer
(*Cryptorhynchus lapathi*)

Portheiria dispar (gypsy moth)
15, 65, 181, 196, 197, 257, 273, 282,
309, 362, 391, 413, 430, 444, 465, 486,
506, 547, 561, 565, 583, 642, 664, 665,
688-689, 698, 713, 717-718, 725, 782

Potato aphid
(*Macrosiphum euphorbiae*)

Potato flea beetle
(*Epitrix cucumeris*)

Potato leafhopper
(*Empoasca fabae*)

Potato psyllid
(*Paratrioza cockerelli*)

Potato tuberworm
(*Phthorimaea operculella*)

Precis coenia (a nymphalid butterfly)
624

Procecidochares utilis (a gall fly)
603, 699

Prociophilus tessellatus (woolly alder
aphid) 410

Prosapia bicincta (twolined spittlebug)
98, 557

Protodiaspis didymus (an armored scale)
780, 782

Protophila australis (a piophilid fly)
11, 45

Pseudaletia unipuncta (armyworm)
3, 59, 81, 127, 189, 227, 239, 251, 277,
301, 317, 329, 349, 381, 388, 401, 437,
473, 517, 523, 531, 553, 597, 633, 721,
777. Light traps: 9, 21, 33, 111, 131,
186, 217, 233, 247, 263, 274, 284, 311,
312, 324, 340-341, 364-365, 393-394,
416-417, 432-433, 446-447, 468-469, 488-
489, 508-509, 532-533, 548-549, 568-569,
586-587, 608-609, 626-627, 645-646, 667-
668, 687, 700, 715, 726, 742, 753

Pseudaonidia clavigera (an armored scale)
696, 701

Pseudatomoscelis seriatus (cotton
flea hopper) 122, 385, 406, 425, 440,
459, 542

Pseudaulacaspis pentagona (white peach
scale) 621

Pseudococcus comstocki (comstock mealybug)
167, 390, 465, 485, 505, 565, 579, 583,
606, 624, 684, 741

Pseudococcus longispinus (longtailed
mealybug) 60

Pseudococcus maritimus (grape mealybug)
306

Pseudoplusia includens (soybean looper)
59, 60, 600, 602, 617, 637, 657, 661,
680, 695

Pseudoscymnus anomalus (a lady beetle)
644, 666

Psilocorsis faginella (an oecophorid moth)
15, 173

Psoloessa delicatula (a grasshopper)
257

Psorophora confinnis (a mosquito)
360, 389, 463

Psorophora signipennis
641, 643

Psoroptes equi (scab mite)
43

Psylla pyricola (pear psylla)
41, 108, 147, 150, 152, 230, 321, 357,
387, 427, 482, 544, 550, 712, 751

Psylla uncatoides (a psyllid)
686, 727

Pteromalus venustus (a pteromalid wasp)
15

Ptinus clavipes (brown spider beetle)
110, 111, 231, 232

Pulvinaria ericicola (a soft scale)
15

Pulvinaria mesembryanthemi
696

Purple scale
(*Lepidosaphes beckii*)

Puss caterpillar
(*Megalopyge opercularis*)

Pyrausta spp. (pyralid moths)
695, 723

Pyrausta fumalis
695

Pyrausta ochosalis
695

Pyrrhalta luteola (elm leaf beetle)
129, 147, 149, 173, 192, 194, 230, 244,
245, 271, 321, 336, 359, 388, 441, 484,
526, 544, 561, 563, 605, 621, 682, 685,
712

Q

Quadraspidotus perniciosus (San Jose
scale) 41, 60, 152, 525, 580, 604, 724

Quadraspidotus taxodii (an armored scale)
780, 782

R

Range caterpillar
(*Hemileuca oliviae*)

Range crane fly
(*Tipula simplex*)

Raspberry cane borer
(*Oberea bimaculata*)

Raspberry crown borer
(*Bembecia marginata*)

Redbacked cutworm
(*Euxoa ochrogaster*)

Redbanded leafroller
(*Argyrotaenia velutinana*)

Redbanded thrips
(*Selenothrips rubrocinctus*)

Red flour beetle
(*Tribolium castaneum*)

Redheaded pine sawfly
(*Neodiprion lecontei*)

Red-horned grain beetle
(*Platydema ruficorne*)

Redhumped caterpillar
(*Schizura concinna*)

Red imported fire ant
(*Solenopsis invicta*)

Redlegged grasshopper
(*Melanoplus femurrubrum*)

Rednecked peanutworm
(*Stegasta bosqueella*)

Red pine sawfly
(*Neodiprion nanulus nanulus*)

Redshouldered ham beetle
(*Necrobia ruficollis*)

Reticulitermes spp. (subterranean termites)
109

Reticulitermes flavipes (eastern
subterranean termite) 32, 109, 178

Reticulitermes hesperus (western
subterranean termite) 130

Reticulitermes tibialis (a subterranean
termite) 109

Rhagoletis cingulata (cherry fruit fly)
153, 357

Rhagoletis completa (walnut husk fly)
154, 544

Rhagoletis indifferens (western cherry
fruit fly) 153, 306, 357

Rhagoletis mendax (blueberry maggot)
152, 358

Rhagoletis pomonella (apple maggot)
153, 387, 562, 604

Rhinocyllus conicus (a weevil)
505, 684

Rhipicephalus sanguineus (brown dog tick)
664, 740

Rhodesgrass scale
(*Antonina graninis*)

Rhopalosiphum fitchii (apple grain aphid)
189, 633, 635, 712, 721, 761, 777
Rhopalosiphum maidis (corn leaf aphid)
41, 46, 85, 178, 268, 277, 302, 329,
349, 363, 401, 421, 437, 453, 473, 494,
517, 531, 537, 554, 573, 597, 613, 633,
666, 693, 721, 761
Rhopalosiphum nymphaeae (waterlily aphid)
44, 111, 666
Rhopalosiphum padi (an aphid)
15, 77, 107, 127, 163, 189
Rhyacionia buoliana (European pine shoot
moth) 696
Rhyacionia bushmelli (an olethreutid moth)
15, 170, 503, 544, 739
Rhyacionia frustrana (Nantucket pine tip
moth) 109, 192, 335, 763, 779
Rhyacionia rigidana (pitch pine tip moth)
15
Rhyzopertha dominica (lesser grain borer)
701
Rice weevil
(Sitophilus oryzae)
Ricoseius loxocheles (a phytoseiid mite)
193, 194, 215
Rodolia cardinalis (vedalia)
462, 642
Rosy apple aphid
(Dysaphis plantaginea)
Rosy predator snail
(Englandina rosea)
Roundheaded pine beetle
(Dendroctonus adjunctus)
Rumina decollata (a snail)
15

S

Saddled prominent
(Heterocampa guttivitta)
Sagebrush defoliator
(Aroga websteri)
Saissetia coffeae (hemispherical scale)
335
Saissetia miranda (a soft scale)
462
Saissetia nigra (a soft scale)
644
Saissetia oleae (black scale)
42, 79, 129, 155, 165, 213, 243, 270,
307, 358, 408, 461, 482, 526, 580, 638
Saltmarsh caterpillar
(Estigmene acrea)
Saltmarsh mosquito
(Aedes sollicitans)
Sambornia juniperi (an aphid)
779, 782
San Jose scale
(Quadraspidiotus perniciosus)
Sanninoidea exitiosa (peachtree borer)
32, 150, 242, 335, 638, 724
Saratoga spittlebug
(Aphrophora saratogensis)
Sarcoptes scabiei (itch mite)
42
Sawflies
169, 196, 197
Sawtoothed grain beetle
(Oryzaephilus surinamensis)
Scab mite
(Psoroptes equi)
Sceptrothelys grandiclava (a pteromalid
wasp) 11, 781, 782
Schistocerca americana (American
grasshopper) 98, 403
Schistocerca vaga (vagrant grasshopper)
666
Schizaphis graminum (greenbug)
3, 15, 19, 31, 41, 59, 77, 81, 86, 107,
110, 127, 145, 163, 178, 179, 189, 211,
227, 239, 251, 302, 317, 329, 350, 381,
401-402, 415, 421-422, 437, 445, 453-
454, 460, 464, 473-474, 481, 494-495,

505, 518, 537, 554, 597, 613, 633, 643,
657, 677, 693, 709, 721, 737, 749, 761,
777
Schizura concinna (redhumped caterpillar)
562
Schreckensteina festaliella (a heliodini
moth) 232, 585
Scirtothrips citri (citrus thrips)
108, 155, 166, 214, 441
Scirtothrips inermis (a thrips)
481, 483, 502, 503
Scobicia declivis (leadcable borer)
411
Scolia dubia (a scoliid wasp)
698, 701
Scolytus spp. (fir engravers)
195
Scolytus multistriatus (smaller European
elm bark beetle) 173, 386, 388, 462,
605
Scolytus rugulosus (shothole borer)
525, 580
Scolytus ventralis (fir engraver)
195
Screwworm
(Cochliomyia hominivorax)
Scutigera immaculata (garden
symphylan) 562
Scymnus spp. (lady beetles)
485
Scyphophorus acupunctatus (a weevil)
230, 232
Seedcorn maggot
(Hylemya platura)
Selca brunella (melastoma borer)
49, 111, 232, 339, 392, 467, 585, 644,
784
Selenothrips rubrocinctus (redbanded
thrips) 686
Semiothisa santaremaria (a geometrid moth)
48, 61, 246, 273, 625, 754
Sepdon macropus (a sciomyzid fly)
531
Sepdon n. sp. (a marsh fly)
727
Sepdon sauteri (a sciomyzid fly)
414, 531, 727
Serpentine leafminer
(Liriomyza brassicae)
Sheep bot fly
(Oestrus ovis)
Sheep ked
(Melophagus ovinus)
Shortnosed cattle louse
(Haematopinus eurystermus)
Shothole borer
(Scolytus rugulosus)
Simulium spp. (black flies)
683
Simulium congareenarum (a whitestockinged
black fly) 174, 177
Simulium jenningsi
683
Simulium glossonae
174, 177
Simulium venustum
177, 282, 428, 683
Sipha flava (yellow sugarcane aphid)
476, 481
Sitona lineatus (pea leaf weevil)
140, 146, 305, 310, 320, 386, 521, 524,
557, 561
Sitona scissifrons (a weevil)
16
Sitophilus oryzae (rice weevil)
598, 634, 684, 765
Sitotroga cerealella (Angoumois grain
moth) 148
Sixspotted mite
(Eotetranychus sexmaculatus)
Smaller European elm bark beetle
(Scolytus multistriatus)
Solenopsis spp. (fire ants)
61, 765

Solenopsis geminata (fire ant)
 750
Solenopsis invicta (red imported fire ant)
 215, 309, 310, 356, 362, 579, 584, 782
Solenopsis saevissima richteri (imported
 fire ant) 6, 33, 61, 66, 103
Solenopsis xyloni (southern fire ant)
 111, 623
 Sorghum midge
 (Contarinia sorghicola)
 Sorghum webworm
 (Celama sorghiella)
 Sourbush seed fly
 (Acinia picturata)
 South African emex weevil
 (Apion antiquum)
 Southern chinch bug
 (Blissus insularis)
 Southern corn rootworm
 (Diabrotica undecimpunctata howardi)
 Southern cornstalk borer
 (Diatraea crambidoides)
 Southern fire ant
 (Solenopsis xyloni)
 Southern green stink bug
 (Nezara viridula)
 Southern house mosquito
 (Culex pipiens quinquefasciatus)
 Southern pine beetle
 (Dendroctonus frontalis)
 Southern pine root weevil
 (Hyllobius aliradicis)
 Southern potato wireworm
 (Conoderus falli)
 Southern red mite
 (Oligonychus ilicis)
 Southwestern corn borer
 (Diatraea grandiosella)
 Soybean cyst nematode
 (Heterodera glycines)
 Soybean looper
 (Pseudoplusia includens)
Spathimeigenia spinigera (a tachina fly)
 765
Spharagemon collarare (a grasshopper)
 529
Sphenophorus spp. (billbugs)
 94
Sphenophorus callosus (a billbug)
 94
Sphenophorus cicatristriatus (a billbug)
 438
Sphenophorus maidis (maize billbug)
 94, 227, 251
Sphenophorus parvulus (bluegrass billbug)
 92, 239, 438, 498, 520, 557, 576, 615
Spicaria (fungus)
 84
Spilococcus ventralis (a mealybug)
 130
 Spined soldier bug
 (Podisus maculiventris)
 Spiny oakworm
 (Anisota stigma)
 Spirea aphid
 (Aphis spiraeicola)
Spissistilus festinus (threecornered
 alfalfa hopper) 41, 120, 146, 424, 616,
 738, 762
Spodoptera exigua (beet armyworm)
 7, 20, 32, 116, 124, 131, 138, 141, 191,
 229, 242, 253, 332, 335, 354, 445, 467,
 507, 521, 557-558, 567, 577, 579, 600,
 603, 617, 618, 619, 620, 661, 666, 678,
 681, 686, 695, 711, 767, 778. Light
 traps: 9, 233, 247, 263, 274, 284, 311,
 324, 340, 364, 393-394, 432-433, 469,
 488, 508-509, 532, 548-549, 568-569,
 587, 608, 626-627, 645-646, 667-668,
 687, 700, 715, 726, 742, 753
Spodoptera frugiperda (fall armyworm)
 82, 92, 96, 239, 277, 438, 456, 493,
 497, 498, 521, 523, 539, 553, 556, 557,
 575, 579, 599, 615, 618, 633, 635, 659,
 678, 679, 694, 710, 722, 737, 750.

Sunflower beetle
(Zygogramma exclamatoris)
Sunflower blossom midge
(Contarinia schulzi)
Sunflower maggot
(Strauzia longipennis)
Sunflower moth
(Homoeosoma electellum)
Swallowtail butterfly
(Papilio xuthus)
Sweetpotato flea beetle
(Chaetocnema confinis)
Sweetpotato leaf beetle
(Typonhorus nigritus viridicyaneus)
Sweetpotato leafminer
(Bedellia orchilella)
Sweetpotato weevil
(Cylas formicarius elegantulus)
Sycamore lace bug
(Corythucha ciliata)
Symmerista albifrons (a notodontid moth)
752, 758
Symmerista canicosta (a notodontid moth)
171, 197, 462, 527
Sympiesis viridula (a eulophid wasp)
579, 620
Synanthedon pictipes (lesser peachtree
borer) 32, 150

T

Tabanus spp. (tabanid flies)
308
Tabanus abactor
308
Tabanus americanus
308
Tabanus atratus (black horse fly)
428
Tabanus cymatophorus
16
Tabanus lineola (striped horse fly)
308
Tachypterellus quadrigibbus (apple
curculio) 335
Taeniothrips hawaiiensis (Hawaiian thrips)
149
Tahitian cocoon weevil
(Diocalandra taitensis)
Takecallis arundinariae (a bamboo aphid)
409, 415
Tarnished plant bug
(Lygus lineolaris)
Taro leafhopper
(Tarophagus proserpina)
Tarophagus proserpina (taro leafhopper)
45, 666
Tathorhynchus angustiorata (a noctuid
moth) 738
Taxodiomyia cupressiananassa (a gall
midge) 147, 149
Tea scale
(Fiorinia theae)
Teleonemia scrupulosa (lantana lace bug)
283, 431
Telsimia nitida (a lady beetle)
48, 61, 131, 363, 543, 644, 666
Tetanops myopaeformis (sugarbeet root
maggot) 123, 279, 354, 355, 426, 501
Tetraleurodes mori (mulberry whitefly)
244, 245
Tetralopha asperatella (a pyralid moth)
16, 173
Tetralopha militella (a pyralid moth)
16, 173
Tetranychus spp. (spider mites)
191, 354, 499
Tetranychus cinnabarinus (carmine spider
mite) 7, 45, 80, 89, 96, 131, 232, 333,
467, 531, 699, 767
Tetranychus mcDanieli (McDaniel spider
mite) 213, 306, 606

Tetranychus pacificus (Pacific spider
mite) 118, 406
Tetranychus tumidus (tumid spider mite)
339
Tetranychus turkestanii (strawberry spider
mite) 242, 336
Tetranychus urticae (twospotted spider
mite) 41, 89, 96, 120, 152, 156, 166,
192, 333, 403, 406, 408, 476, 479, 480,
502, 523, 524, 525, 540, 544, 557, 575,
577, 601, 618, 621
Tetrastichus sp.
761
Tetrastichus haitiensis
67
Tetrastichus incertus
179, 193
Tetrastichus julis
411, 412, 415, 460, 464, 528, 561, 579,
582
Texas citrus mite
(Eutetranychus banksi)
Therioaphis maculata (spotted alfalfa
aphid) 3, 19, 41, 59, 77, 81, 88, 107,
127, 145, 163, 178, 189, 211, 227, 239,
241, 251, 253, 277, 302, 330, 350, 504,
422, 437, 454, 460, 474, 495, 519, 538,
555, 564, 574, 579, 598, 614, 634, 657,
665, 693, 709, 721, 737, 749
Threecornered alfalfa hopper
(Spissistilus festinus)
Threelined potato beetle
(Lema trilineata)
Threestriped blister beetle
(Epicauta lemiscata)
Thrips
122, 406
Thrips tabaci (onion thrips)
33, 141, 253, 339, 487, 699, 727
Thyridopteryx ephemeriformis (bagworm)
109, 156, 244, 387, 483, 504, 527
Thysanopyga intractata (a geometrid moth)
763, 779, 782
Tinocallis caryaefoliae (black pecan
aphid) 154, 525, 562, 604, 638, 662,
682, 712, 724
Tinocallis kahawaluokalani (crapemyrtle
aphid) 712
Tipula paludosa (European crane fly)
64, 282, 309, 565, 642, 664, 698, 741,
765
Tipula simplex (range crane fly)
146
Tobacco budworm
(Heliothis virescens)
Tobacco flea beetle
(Eptitrix hirtipennis)
Tobacco hornworm
(Manduca sexta)
Tobacco moth
(Ephestia elutella)
Tobacco thrips
(Frankliniella fusca)
Tomato hornworm
(Manduca quinqueaculata)
Tomato pinworm
(Keiferia lycopersicella)
Tomato russet mite
(Aculops lycopersici)
Tomicus piniperda (a bark beetle)
234
Toxoptera aurantii (black citrus aphid)
445, 487
Toxoptera citricida (brown citrus aphid)
47
Trachyrhachys kiowa (a grasshopper)
65, 714
Transverse lady beetle
(Coccinella transversoguttata)
Trathala flavo-orbitalis (an ichneumon
wasp) 467, 603, 783
Trialeurodes abutilonea (bandedwing
whitefly) 119, 120, 122, 479, 481, 578,
601, 602, 610, 619, 661, 695, 696, 750

Trialeurodes vaporariorum (greenhouse whitefly) 44, 45, 111, 168, 194, 246, 258, 363, 392, 445, 543, 567, 666, 699, 783

Tribolium audax (American black flour beetle) 272, 273

Tribolium castaneum (red flour beetle) 684

Tribolium confusum (confused flour beetle) 20, 43, 80

Trichogramma spp. (minute egg parasites) 363, 431, 603

Trichogramma semifumatum (a minute egg parasite) 543

Trichomalus statutus (a pteromalid wasp) 11

Trichoplusia ni (cabbage looper) 4, 59, 60, 138, 140, 141, 189, 191, 501, 567, 578, 579, 600, 602, 619, 620, 636, 637, 657, 660, 661, 680, 681, 695, 711, 723, 751. Light traps: 186, 217, 233, 247, 263, 274, 284, 311, 324, 340, 364-365, 393-394, 417, 432-433, 446, 468-469, 488-489, 508-509, 532-533, 548-549, 568-569, 586-587, 608-609, 626-627, 645-646, 667-668, 687, 700, 715, 726, 753

Trichopoda pennipes (a tachina fly) 258, 339, 414, 487

Trichopoda pennipes pilipes (a tachina fly) 767, 784

Trichopoda pennipes var. pilipes (a tachina fly) 149

Trimerotropis latifasciata (a grasshopper) 529

Trimerotropis strenua (a grasshopper) 561

Trioxys pallidus (a braconid) 179

Trissolcus basalis (a scelionid wasp) 44, 339, 531

Trogoderma granarium (khapra beetle) 512-513, 628-630, 647-653

Tropidosteptes spp. (plant bugs) 281

Tropidosteptes illitus 281

Tropidosteptes pacificus 281, 527

Tulip bulb aphid (Dysaphis tulipae)

Tumid spider mite (Tetranychus tumidus)

Twicestabbed lady beetle (Chilocorus stigma)

Twig girdler (Oncideres cingulata)

Twolined spittlebug (Prosapia bicincta)

Twospotted lady beetle (Adalia bipunctata)

Twospotted spider mite (Tetranychus urticae)

Twostrided grasshopper (Melanoplus bivittatus)

Typhlodromus sp. (a phytoseiid mite) 213

Typophorus nigrirus viridicyaneus (sweetpotato leaf beetle) 603

Tyria jacobaeae (a cinnabar moth) 180, 505

Tytthus mundulus (cane leafhopper egg sucker) 46, 487, 714

U

Unaspis citri (an armored scale) 42, 79, 108, 129, 165, 213, 243, 270, 307, 358, 409, 461, 482, 526, 580, 638, 763

Uroplata girardi (lantana hispid) 111, 283, 431

Utabaenetes tanneri (a mole cricket) 331, 334

V

Vagrant grasshopper (Schistocerca vaga)

Variable oakleaf caterpillar (Heterocampa marteo)

Variegated cutworm (Peridroma saucia)

Veda.ia (Rodolia cardinalis)

Vegetable leafminer (Liriomyza munda)

Vegetable weevil (Listroderes costirostris obliquus)

Velataspis dentata (a diaspidid scale) 763

Velvetbean caterpillar (Anticarsia gemmatalis)

Vertigo rugosula oralis (a land snail) 168

Vexans mosquito (Aedes vexans nocturnus)

Vogtia malloi (a phycitid moth) 180

W

Walkingstick (Diaperomera femorata)

Walnut aphid (Chromaphis juglandicola)

Walnut caterpillar (Datana integerrima)

Walnut husk fly (Rhagoletis completa)

Waterlily aphid (Rhopalosiphum nymphaeae)

Weevils 684

Western bean cutworm (Loxagrotis albicosta)

Western blackheaded budworm (Acleris gloverana)

Western cherry fruit fly (Rhagoletis indifferens)

Western corn rootworm (Diabrotica virgifera)

Western flower thrips (Frankliniella occidentalis)

Western grapeleaf skeletonizer (Harrisina brillians)

Western spotted cucumber beetle (Diabrotica undecimpunctata undecimpunctata)

Western spruce budworm (Chorisonera occidentalis)

Western subterranean termite (Reticulitermes hesperus)

Western tent caterpillar (Malacosoma californicum)

Western tussock moth (Homocampa vetusta)

Western yellowstriped armyworm (Spodoptera praefica)

West Indian sugarcane root borer (Diaprepes abbreviatus)

Wheat stem maggot (Meromyza americana)

Wheat stem sawfly (Cephus cinctus)

White fir needleminer (Epinotia meritana)

Whiteflies 42, 129, 165, 213, 243, 270, 307, 358, 409, 462, 483, 526, 581, 639

Whitefringed beetles (Graphomathus spp.) 187, 194

Whitelined sphinx
(Hyles lineata)
White peach scale
(Pseudaulacaspis pentagona)
White pine aphid
(Cinara strobil)
White pine weevil
(Pissodes strobil)
Winter grain mite
(Penthaleus major)
Winter tick
(Dermacentor albipictus)
Wireworms
94, 303
Woolly alder aphid
(Prociphilus tessellatus)
Woolly apple aphid
(Eriosoma lanigerum)
Woolly whitefly
(Aleurothrixus floccosus)

X

Xanthippus corallipes (a grasshopper)
257
Xanthopimpla punctata (an ichneumon wasp)
356, 363
Xenochalepus dorsalis (locust leafminer)
174, 544
Xylomyges curialis (a noctuid moth)
306
Xylosandrus compactus (a bark beetle)
45, 47, 80
Xylosandrus germanus (a scolytid beetle)
640, 643

Y

Yellowheaded spruce sawfly
(Pikonema alaskensis)
Yellow scale
(Aconidiella citrina)
Yellowstriped armyworm
(Spodoptera ornithogalli)
Yellow sugarcane aphid
(Sipha flava)

Z

Zebra caterpillar
(Ceramica picta)
Zelleria haimbachi (pine needle
sheathminer) 739
Zelus renardii (a reduviid)
246, 323
Zetzellia mali (a phytoseiid mite)
606
Zeuxidiplosis giardi (a cecidomyiid
midge) 585
Zimmerman pine moth
(Dioryctria zimmermani)
Zygogramma exclamatoris (sunflower
beetle) 355, 426

