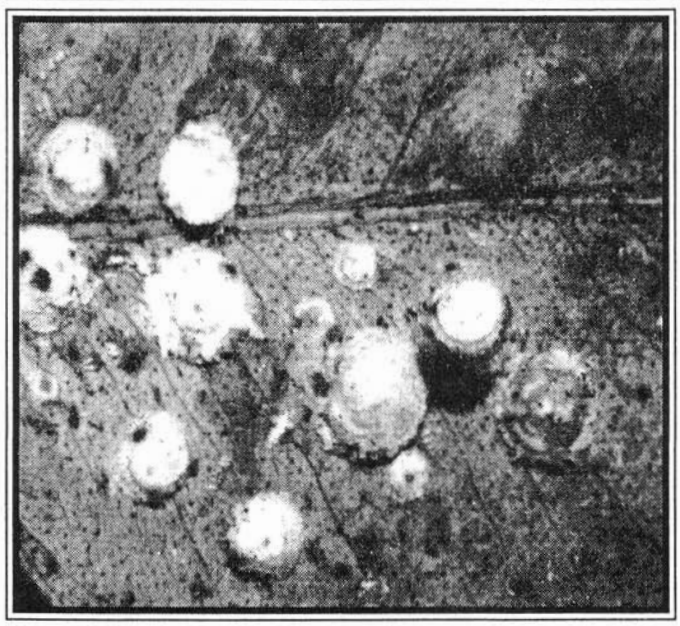
California Plant Pest & Disease Report

California Department of Food and Agriculture
Plant Pest Diagnostics Center
3294 Meadowview Road
Sacramento, CA 95832-1448



ATTACK OF EUCALYPTUS PESTS!

What's Inside:
Vol. 17 Nos. 1-3
January-June, 1998

Entomology Highlights 3
Significant Finds 3
New State Records 4
New County Records. 11
Exclusion. 11
Border Stations 15
Significant Finds Other States. . 18
Eucalyptus Pests 21

Botany Highlights 25

-Plus-
The Updated CPPDR
Cumulative Index
pages 30-45

California Plant Pest & Disease Report

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ENTOMOLOGY HIGHLIGHTS

There have been a number of major entomological events that have occurred in the first half of this year, in California, Florida and Illinois. We cover the months of January to June in this issue of CPPDR, instead of the usual January to May dates used in previous issues, in order to better cover these events.

ERRATA

Several errors in the last issue of CPPDR need correcting. First, there were two issues printed last year instead of the usual three issues, due to time constraints of the editor and producer of CPPDR. The first issue was volume 16, numbers 1-2, January to May. The second issue was volume 16, numbers 3 - 6. This volume was supposed to be June to December, and is so stated on the front cover. However, the master pages were somehow not changed and were left at the originally scheduled June to September designation.

The next error includes activities surrounding the recently introduced avocado thrips, *Scirtothrips perseae*. We made mention of work by Dr. Mark Hoddle and his collection of the thrips in Mexico. We misspelled his name as Mark Hottle. Sorry for that Mike, our mistake. Also, we stated that he had collected the thrips in Puebla and Vera Cruz Mexico, but Mark tells us that he did not find it in Vera Cruz, but did find it in Puebla and Coatepec-Harrinas in the state of Mexico.

In previous issues, we mentioned finding the euphorbia pit scale (*Asterolecanium stentae*) on Lantana bushes in San Diego County and other locations. Mis-identification was involved. These finds actually were *Asterolecanium grandiculum*, a species probably native to the arid southwest.

SIGNIFICANT FINDS

MEXICAN FRUIT FLY, *Anastrepha ludens* -(A)- A Mexican fruit fly was found on December 12, 1997 that was identified after the last issue of CPPDR was published. The fly was discovered in a sapote by Lee Lyons in Chula Vista, **San Diego** County. Two additional Mexican fruit fly finds were made between April and June, 1998. One fly was found on April 21, 1998 in an orange tree in Thousand Oaks, **Ventura** County, by Tom Paul. Another fly was discovered in San Diego, **San Diego** County, by Kahsai Ghebretnsea on June 12, 1998. The fly was found in a peach tree. While no larvae were ever found, eradication measures were started.

CARIBBEAN FRUIT FLY, *Anastrepha suspensa* -(A)- A Caribbean fruit fly was discovered on December 22, 1997 and identified after the publication date of the last issue of CPPDR. The fly was found in an orange tree by Lucas Moreno in Echo Park, **Los Angeles** County. Additional trapping and surveying determined that an infestation did not exist.

AN EXOTIC FRUIT FLY, *Anastrepha striata* -(A)- One *Anastrepha striata* was found on May 19, 1998 in South Gate, **Los Angeles** County. The fly was found by Jesus Garcia in a loquat tree. A relative of the Mexican fruit fly, this species prefers guavas but also feeds on a wide variety of fruits. No evidence of an infestation was found.

AFRICANIZED HONEY BEE (AHB), *Apis* "Africanized" -(A)- A new county record was made with the discovery of AHB in San Bernardino County. UCD researcher Dave Nielsen found AHB near Joshua Tree, **San Bernardino** County on April 2, 1998. Other collections are listed below.

I-8 and Ogilby Rd	**Imperial** County	01/08/98	Bolin/McLaughlin
North Shore	**Riverside** County	01/29/98	Martinez/Montez
Joshua Tree	**San Bernardino** Co.	04/02/98	Nielsen
Jucumba	**San Diego** County	05/01/98	Nielsen
Calipatria	**Imperial** County	05/05/98	Carson/Valenzuela
El Centro	**Imperial** County	05/13/98	Triviso
Blythe	**Riverside** County	06/03/98	Elms
Needles	**San Bernardino** Co.	06/09/98	Mian
Rancho Mirage	**Riverside** County	06/10/98	Arias/Franklin
Calipatria	**Imperial** County	06/13/98	Clark
Calipatria	**Imperial** County	06/15/98	Carson/Triviso
Needles	**San Bernardino** Co.	06/16/98	Mian

NEW STATE RECORDS

Several new state and/or new North American records of insects have been found the first of this year. Some will be covered here, but others will not be mentioned pending publication of these records in other journals by collectors not associated with California Department of Food and Agriculture. These records will be covered after publication of their results.

There have been collections made of two newly introduced pests of eucalyptus during the period of this report. They appear to be serious pests of eucalyptus, possibly more so than any of the other introduced eucalyptus pests--except for the two longhorn borers in the genus *Phoracantha*. A list of recently introduced pests of eucalyptus can be found on pages 21-24.

AUSTRALIAN TORTOISE BEETLE, *Trachymela sloanei* -(Q)- This beetle is a member of the Coleopteran family Chrysomelidae. It was first found in the state at La Sierra, **Riverside** County, near the city of Riverside. This is a new state and county record, and, apparently, a new North American record. It was first found by a local, retired pest control advisor on his property. The flight wings are red, and the beetle was quite noticeable when in flight, thus attracting his attention. He took it to the museum at U.C. Riverside, where Saul Frommer made the initial determination. Los Angeles County Entomologist Rosser Garrison has made an in depth report on this beetle (pages 5-6).

LOS ANGELES COUNTY
AGRICULTURAL COMMISSIONER'S OFFICE

New Agricultural Pest for Southern California

Australian Tortoise Beetle, *Trachymela sloanei* (Figs. 1-3)

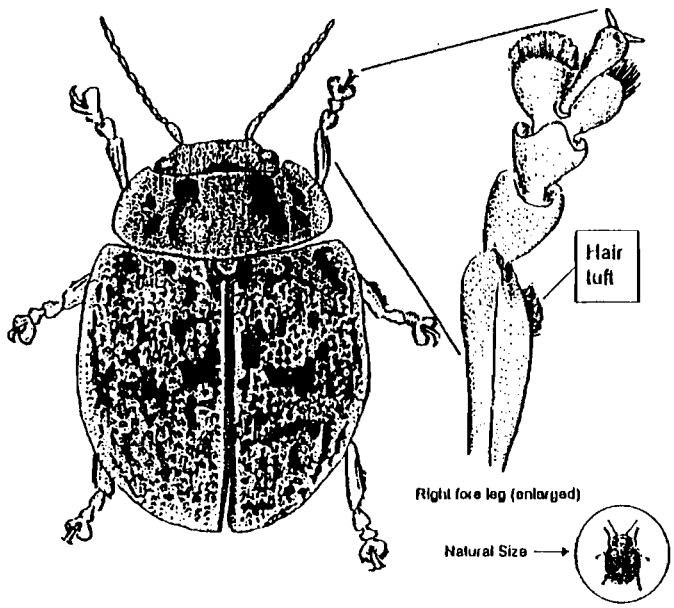


Fig. 1. *Trachymela sloanei* (dorsal view)

Introduction: In early February, 1998, Australian Tortoise Beetle (ATB), *Trachymela sloanei*, was detected for the first time in western Riverside County at a private residence containing acreage of Red gum eucalyptus (*Eucalyptus camaldulensis*). A specimen of the new beetle was noticed by the owner and taken to the Department of Entomology, University of California, Riverside, for identification. The find represents a new record not only for California but also for the New World.

Economic Importance: ATB is a chrysomelid (leaf-eating) beetle belonging to the Paropsina group of the large subfamily Chrysomelinae. According to Lawrence and Britton (1991), certain species of *Trachymela* can be notorious defoliators of certain species of eucalyptus. In southern California, both adults and larvae of ATB are external feeders of Red gum eucalyptus. Feeding damage allows for easily recognizable evidence of ATB, but its economic impact in Southern California has yet to be ascertained. Tribe and Cillé (1997) reported on the biology of a similar species, *T. tincticollis* in South Africa. This is an apparently rare species in Australia but it was detected in South Africa in the early 1980's. *Trachymela tincticollis* is known to attack at least 18 species of eucalyptus including the common bluegum, *Eucalyptus globulus*.

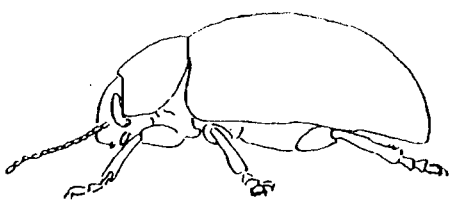


Fig. 2. *Trachymela sloanei* (lateral view)

Distribution: ATB was originally described from Australia but it was later introduced to New Zealand where it spread 30-40 km over eight years (Tribe and Cillé 1997). Besides the initial findings of ATB in southwestern Riverside, ATB was discovered at two private residences in the Tustin area of Orange County in June (N. Nisson, D. Taylor, pers. comm.). Recently (June 1998) ATB has been found infesting eucalyptus all over the University of California campus at Riverside. Adult beetles readily fly and this should allow the species to disperse to other areas in southern California wherever its host occurs.

Comments:. According to Chris Campbell, a researcher at the University of California at Riverside, almost nothing has been written on ATB. Entomologists in South Africa do have a Pteromalid (small parasitic wasp) which parasitizes this species and the similar *Trachymela tincticollis*. Tribe and Cillé (1997) report that the importation of this egg parasite, *Enoggera reticulata* from Southwest Australia into Cape Town in 1986 resulted in a 96% parasitism rate within a year.

During the day adults of ATB are found in numbers under eucalyptus bark. Colonies most frequently occur 20-25 feet above the ground. Loose bark can be pried off the tree using a large stick and the sluggish adults can than be examined and collected. Further observations of ATB in the University of California Riverside quarantine facility revealed this species to feed at night. The larvae have defense glands on the dorsum of the eighth abdominal segment which are able to secrete hydrogen cyanide.

Researchers at UCR have been in contact with fellow entomologists in South Africa and are planning to import various parasitic wasps which may be successful in controlling ATB in southern California.

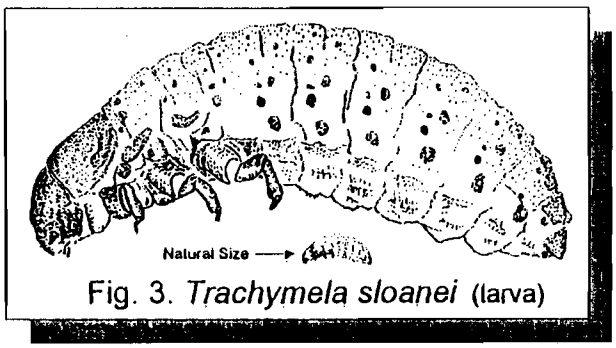


Fig. 3. *Trachymela sloanei* (larva)

Identification: ATB is a member of the "Tortoise" leaf beetle group about 6-7 mm, is brown with darker mottled spots, and is about the size of a large ladybird beetle (Fig. 1). The adult is hemispherical and is flattened underneath (Fig, 2). The legs are unique in possessing a thick tuft of fine hair on the outer distal margin of the tibia (Fig. 1, inset). The tarsomeres are strongly bilobed and covered ventrally with a fine thick set of blond bristles. The gray brown, caterpillar-like larvae (Fig. 3) possess varying sizes of scleritized bumps along the body. Three small pairs of legs are on the thorax.

Life History: Nothing has been recorded for ATB but the following statistics abstracted from Tribe and Cillé (1997) for the closely related *T. tincticollis* probably mirror the developmental biology for ATB. Like other Coleoptera, ATB undergoes complete metamorphosis. Females lay an average of 10 eggs per clutch and single females can lay upwards of over 3000 eggs during her adult lifetime (about 270 days). Eggs are laid in crevices or fissures in or under bark. There are four larval instars with a total duration from egg to prepupa of about 22 days. Pupation occurs in the duff and litter or soil around the base of the host tree and adults emerge at about 35 days after oviposition.

Acknowledgements: Thanks are due to Chris Campbell, UCR for sharing information and literature on this species, to Gene Drake, CDFA for his help in allowing me to see this species in the field, and to Dave Taylor and Nick Nisson of Tustin for sharing their Orange County records with me.

References:

Lawrence, J. F. & E.B. Britton. 1991. Coleoptera *in*: CSIRO. The insects of Australia, 2ed ed. Cornell Univ. Press.

Tribe, G.D. & J.J. Cillé. 1997. Biology of the Australian tortoise beetle, *Trachymela tincticollis* Blackburn (Chrysomelidae: Chrysomelinae: Paropsini) a defoliator of Eucalyptus in South Africa. African Entomology 5(1): 109-123

Prepared by Rosser W. Garrison, Entomologist, Los Angeles County Agricultural Commissioner's Office, 3400 La Madera Ave., El Monte, CA 91732 ☎ 626-575-5469 revised 7/98

NEW STATE RECORDS, continued

REDGUM LERP PSYLLID, *Glycaspis brimblecombei* -(Q)- Yet another psyllid pest of eucalyptus has been found in the state, apparently for a new North American record. The psyllid was found by Cindy Werner of **Los Angeles** County Department of Agriculture on redgum eucalyptus located right outside of the Agricultural Commissioner's office. Cindy collected the psyllids in June, 1998 and took them in to Rosser Garrison, county entomologist, who recognized them as something new and unusual. The three or four trees at the original collection site were heavily infested. The infestation in El Monte had been followed a mile or two to the east, but it had not been found at that time in other localities in the Los Angeles basin. The psyllid forms a "lerp." This is a mostly secretionary structure of crystallized honeydew produced by the nymphs as a protective cover (see included photographs and illustrations) that closely resembles armored scale insects. Currently the psyllids are producing large amounts of honeydew, which is staining the ground underneath the trees, and they are also causing very severe leaf drop.

The psyllid was identified in Sacramento as *Glycaspis brimblecombei*, and specimens were sent to Daniel Burckhardt, a psyllid specialist in Switzerland, for confirmation. The psyllid nymphs form lerps that are conical in shape, and will reach a size of approximately 3 mm in diameter and 2 mm in height. The nymphs are yellow, or yellow and brown in color. The adults are light green or yellow in color, 3 mm long. The adults are different from other California psyllids in that they have very long genal cones on the face (see pictures).

The psyllid is native to Australia, where it is known to feed on a localized population of the redgum eucalyptus (*Eucalyptus camaldulensis*). According to the literature, it is also known to feed on these other species of *Eucalyptus* in Australia: *dealbata, tereticornis, blakelyi, bridgesiana,* and *nitens*. The psyllid is implicated in serious outbreaks in native situations in Australia. The psyllid has also been found in northern California. Samples have been collected in **Alameda** County by Eric Brennan, a graduate student at UC Davis, and by Ronnie Eaton, with Alameda County Department of Agriculture; at Stanford University in **Santa Clara** County by Nancy Garrison, farm advisor; and in Foster City, **San Mateo** County by Richard Garcia, with San Mateo County Department of Agriculture.

The first collection in northern California was by Eric Brennan on July 24 near Fremont at the Ardenwood Preserve, a former farm and ranch now maintained as a park by the East Bay Regional Parks District. Their entomologist was aware of the problem and called Eric's attention to it. Ardenwood has several groves of solid or mixed eucalyptus species, and Eric is working on determining which eucalyptus species are being attacked. Some species are severely attacked, with major leaf drop the result, while others have lesser infestations or infestations in which the nymphs begin to feed but do not survive through to adulthood.

The psyllid was being attacked by several predators, including the two introduced ladybeetles *Harmonia axyridis* and *Chilocorus bipustulatus*, particularly the former, which occurs in large numbers both in El Monte and Ardenwood.

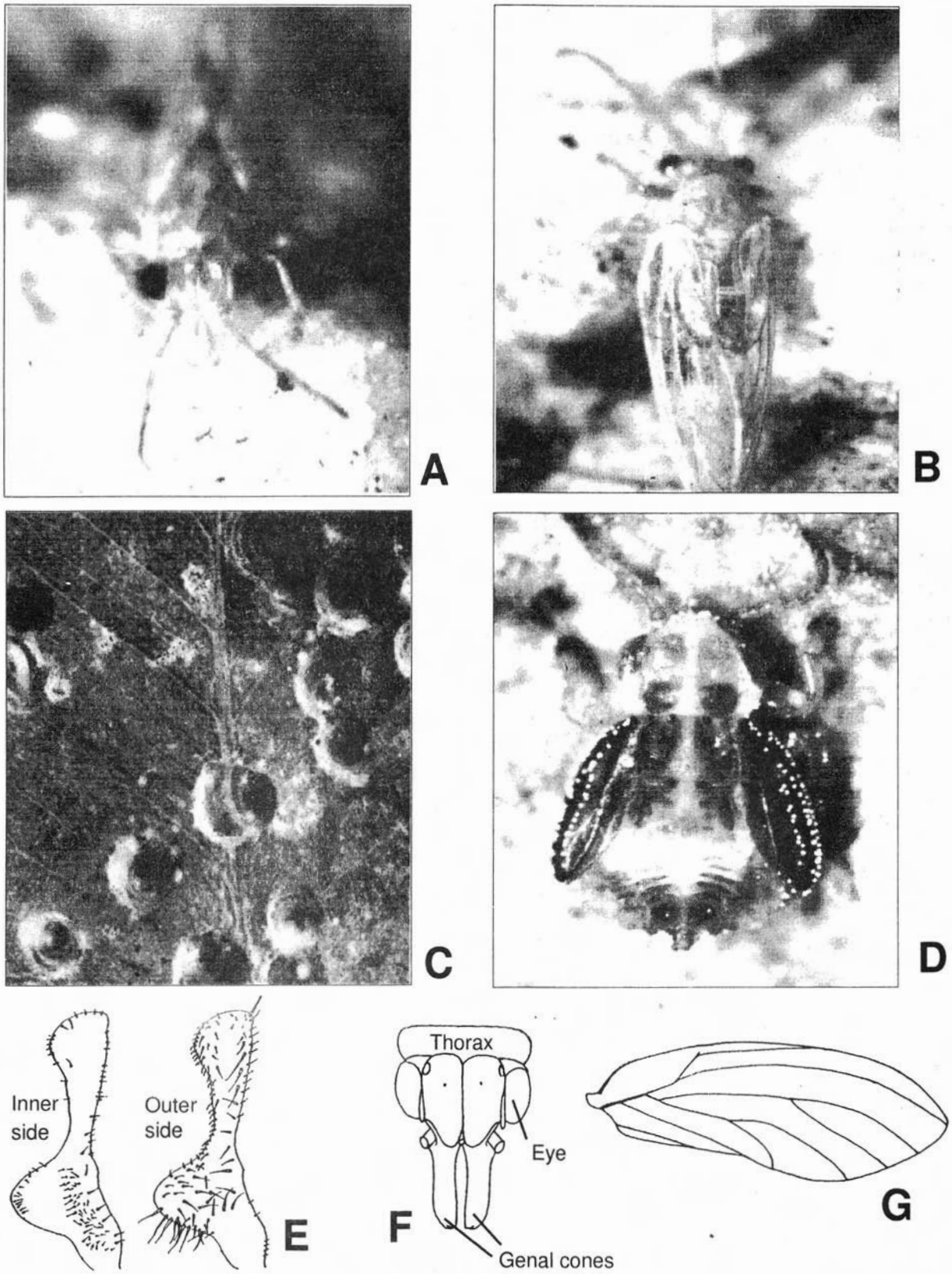


Fig. 4. Redgum lerp psyllid, *Glycaspis brimblecombei*. A & B: adult; C: lerps; D: fifth instar nymph; E: male genital parameres (claspers) in lateral view; F: head showing enlarged genal cones (see also 4A); G: forewing. Fig. 4E taken from Moore, 1970. Australian Zoologist 15(3):248-376. Fig. 4F taken from Morgan, 1984. Psylloidea of South Australia. D.J. Woolman, Government Printer, South Australia.

NEW STATE RECORDS, continued

AN APHID, *Greenidea formosana* -(Q)- This aphid, *Greenidea formosana,* has recently been found in **Orange** and **Ventura** Counties during nursery regulatory inspections. The aphid was found on guava, Indian laurel fig, and New Zealand Christmas tree in Orange County, and on myrtle in Ventura County. The following information is an excerpt from a report written by Umesh Kodira, Associate Plant Pathologist, California Department of Food and Agriculture:

> *Greenidea formosana* was reported as an aphid new to the Hawaiian Islands and the Western Hemisphere in 1993. Several plants in the families Myrtaceae *(Callistemon, Eugenia, Melaleuca , Metrosideros, Psidium, Rhodomyrtus,* and *Tristania),* Moraceae *(Ficus),* and Clusiaceae *(Nesua)* have been reported as hosts of this aphid. *Greenidea formosana is* reported to be atypical in appearance. The nymphs and adults are brownish in color and the abdomen is dorso-laterally flattened in shape, with prominent hair-bearing cornicles. In elate (winged) adults, the cornicles often exceed the length of the abdomen. The potential of this aphid to cause direct damage to plants or to serve as a vector of plant disease is unknown.
>
> Nursery Inspectors are advised to be on the lookout for *Greenidea formosana* during inspections. As a reminder, all nursery stock must be free of Q-rated pests not known to occur or which are widely but not generally distributed in the state, including this aphid.

Fig. 5. *Greenidea formosana.* Photos by Nick Nisson, Entomologist, Orange County Department of Agriculture.

CHINESE ELM APHID, *Tinocallis ulmiparvifoliae* -(Q)- Chinese elm aphid has been detected for the first time in **Los Angeles** County. The aphid was found on January 7, 1998 at a nursery in Sylmar. In April of 1998, it was also found in Florida by Susan Halbert, Systematic Entomologist with Florida Department of Agriculture. The species is from the Oriental region, and represents a new state and New World record. The specimen was collected on Chinese elm (*Ulmus parvifolia*), and is also known to occur on English elm (*U. minor*). *T. ulmiparvifoliae* had previously been misidentified as *T. ulmifolli*, native to California. *T. ulmiparvifoliae* differs from our native species by possessing 3 pairs of dorsal (top-bearing) finger-like tubercles. Our native species lacks the tubercles on the head. It is bluish green, with a developing pair of longitudinal white stripes on the head and pronotum. There is a single dorsal spinal white stripe on pterothorax and white wax spots on the dorsal abdomen. The tips of the abdominal tubercles and distal ends of forewing veins are frequently dark and has a body length of 1.6-12.7 mm.

Potential for economic damage is unknown at this time. If heavy populations develop, then honeydew problems may occur.

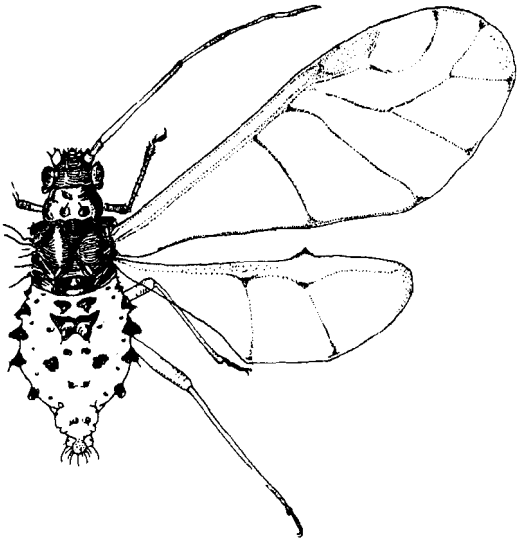


Fig.6 Chinese Elm Aphid, *Tinocallis ulmiparvifoliae*. Illustration by Rosser Garrison, Entomologist, Los Angeles County Department of Agriculture.

NEW COUNTY RECORDS

AFRICANIZED HONEY BEE (AHB), *Apis* "Africanized" -(A)- AHB was discovered for the first time in **San Bernardino** County on April 2, 1998. The collection was made near Joshua Tree by UCD researcher Dave Nielsen. For further information on AHB locations, see page 4.

EXCLUSION

Several pest species are collected every year in nurseries or other similar situations that are not necessarily considered to be established in the state. The following are some examples of rated pests found in nurseries over the past year up to June, 1998.

A MEALYBUG, *Nipaecoccus sp.* -(Q)- Found in a nursery on December 30, 1997 in Rosemead, **Los Angeles** County. Collected by M. Sium on Brazilian pepper and queen palm.

A MEALYBUG, *Chorizococcus sp.* -(Q)- Found in a nursery in Coarsegold, **Madera** County on *Tillandsia* sp. by D. Holguin on February 23.

A MEALYBUG, *Nipaecoccus sp.* -(Q)- Found on *Arecastrum* sp. on April 6 at a nursery in South El Monte, **Los Angeles** County by M. Sium.

URBAN SOFT SCALE, *Pulvinaria urbicola* -(B)- Found on *Campsis* sp. on April 15 by H. Heath in a nursery in Carpinteria, **Santa Barbara** County.

BORDER STATIONS

Several notable pests were intercepted at border stations over the past year through June, 1998. Mediterranean fruit fly larvae, originating in Spain, was found on *Citrus* sp. at the Needles border station on November 12, 1997. Several *Marmara* leaf miners were collected at various border stations, as were gypsy moths and zebra mussel. See pages 15-17 for more significant quarantine and border station interceptions.

Important "A", "B", and "Q" Rated Arthropods and Mollusks Intercepted in Quarantine through June 1998

Rating	Species	Common Name	Date	Origin	County	Host	Collector(s)
Q	*Puto mexicanus*	Mexican giant mealybug	12/24/97	Mexico	LAX	*Tejocotes*	
Q	*Puto mexicanus*	Mexican giant mealybug	12/22/97	Mexico	LAX	*Crataegus* sp.	
Q	*Metioche* sp.	cricket	09/05/97	Hawaii	LAX	*Dracaena* sp.	Sium
Q	*Palmicultor palmarum*	palm mealybug	12/22/97	Hawaii	SJQ	triangle palm	Pelletier
Q	*Euclea delphinii*	slug caterpillar	07/10/97	Ohio	LAX	aircraft	Winningham
Q	*Pinnaspis uniloba*	unilobed scale	07/10/97	Hawaii	SMT	*Alyxia olivoeformis*	Loux
A	*Rhizotrogus majalis*	European chafer	07/13/97	Michigan	LAX	aircraft	Oliver
A	*Rhizotrogus majalis*	European chafer	07/09/97		ALA	aircraft	Franke
Q	*Empoasca* sp.	leafhopper	07/14/97	Hawaii	SMT	*Cordyline terminalis*	Loux
Q	*Dyscinetus* sp.	scarab beetle	07/28/97	Kentucky	LAX	aircraft	Sauber
Q	*Conocephalus saltator*	katydid	12/30/97	Hawaii	ORA	*Dendrobrium* sp.	Sanford
A	*Ceratitis capitata*	Mediterranean fruit fly	02/03		SCL	*Citrus reticulata*	Price
Q	*Abgrallaspis ithacae*	hemlock scale	01/08	Vermont	SAC	*Abies balsamea*	Penrose
Q	*Spodoptera* sp.	armyworm	02/26	Hawaii	SFO	*Zingiber* sp.	Clifford
Q	*Amorbia* sp.	leafroller	02/25	Hawaii	SCL	*Strelitzia* sp.	Nachand
Q	*Trioza* sp.	psyllid	02/26	Mexico	SCL	mint	Walter
Q	*Lorryia* sp.	tydeid mite	02/27	Los Angeles	SFO	*Citrus aurantifolia*	Wion
Q	*Orchamoplatus mammaeferus*	croton whitefly	02/19	Hawaii	LAX	cut greens	Chinwah
Q	*Palmicultor* sp.	mealybug	02/17	Florida	ORA	*Wodyetia bifurcata*	Fernandez
A	*Achatina fulica*	giant African snail	02/25	Hawaii	SMT	orchid	Pendelton
Q	*Puto mexicanus*	Mexican giant mealybug	12/28/97	Mexico	LAX	*Crataegus* sp.	
Q	*Rhizoecus hibisci*	root mealybug	03/04	Florida	LAX	*Ravenea rivularis*	Hartman
A	*Chrysodeixis eriosoma*	green garden looper	02/12	Hawaii	ORA	*Cordyline terminalis*	Sanford
Q	*Dysmicoccus boninsis*	sugarcane mealybug	02/12	Hawaii	ORA	*Alpinia purpurata*	Barnes
Q	*Elimaea punctifera*	narrow-winged katydid	02/19	Hawaii	VEN	*Dracaena* sp.	Pearson
Q	*Aleurotulus anthuricola*	anthurium whitefly	02/12	Hawaii	ORA	*Anthurium andraeanum*	Barnes
Q	*Abgrallaspis townsendi*	townsend scale	02/26	Louisiana	LAX	*Magnolia* sp.	Hamashita
Q	*Thiodia* sp.	olethreutine-tortricid moth	03/16	Florida	SFO	*Artemisia* sp.	Wion
Q	*Palmicultor palmarum*	palm mealybug	03/10	Hawaii	SLO	*Cocos nucifera*	Groat
Q	*Calycomyza* sp.	leafminer	03/16	Florida	SFO	*Artemisia* sp.	Wion
Q	*Trialeurodes variabilis*	papaya whitefly	01/29	Florida	SBA	*Carica papaya*	Davey
Q	*Malleolaspis* sp.	armored scale	02/11	Mexico/TX	SJQ	palm fronds	Giesing
Q	*Paraleurolobus chamaedoreae*	whitefly	02/11	Mexico/TX	SJQ	palm fronds	Giesing
B	*Lamellaxis* sp.	snail	02/09	Florida	LAX	*Schefflera* sp./*Ficus benjamina*	Hamashita
A	*Ceroplastes rusci*	fig wax scale	02/05	Florida	SCL	*Ficus benjamina*	Walter/Nachand

Rating	Species	Common Name	Date	Origin	County	Host	Collector(s)
Q	*Hemiberlesia diffinis*	diffinis scale	02/04	Florida	ORA	*Ficus benjamina*	Fernandez
Q	*Aleuroplatus* sp.	whitefly	02/11	Mexico/TX	SJQ	palm fronds	Giesing
Q	*Aleurocerus palmae*	palm whitefly	02/11	Mexico/TX	SJQ	palm fronds	Giesing
Q	*Pseudococcus jackbeardsley*	mealybug	03/18	South East Asia	SFO	breadfruit	Seslow
Q	*Sclerosococcus tillandsiae*	bromeliad pit scale	03/09		MAD	*Tillandsia filifolia*	Shima
Q	*Metioche* sp.	cricket	03/16	Hawaii	ORA	*Dracaena deremensis*	Kinsella
Q	*Philomycus* sp.	slug	03/05	Hawaii	ORA	*Monstera* sp.	Fernandez
Q	*Chorizococcus* sp.	mealybug	03/09		MAD	*Tillandsia paucifolia*	Holguin
B	*Diaphania nitidalis*	pickleworm	03/27	Dom. Republic	SMT	baby cucumber	Loux
Q	*Dysmicoccus mackenziei*	mackenzie mealybug	03/09		MAD	*Tillandsia paucifolia*	Holguin
Q	*Aclerda* sp.	bamboo aclerdid scale	03/09		MAD	*Tillandsia bulbosa*	Shima
Q	*Aclerda* sp.	bamboo aclerdid scale	03/09		MAD	*Tillandsia bulbosa*	Holguin
Q	*Chorizococcus* sp.	mealybug	03/06		MAD	*Tillandsia bulbosa*	Rohn
A	*Solenopsis geminata*	fire ant	03/16	Hawaii	ORA	*Bambusa vulgaris*	Fernandez
A	*Ostrinia nubilalis*	European corn borer	03/04	Nebraska	SJQ	*Zea mays*	Giesing
A	*Diastrophus radicum*	raspberry root gall wasp	03/18		HUM	*Rubus* sp.	Spadoni
Q	*Eriophyes* sp.	eriophyid mite	03/16	Florida	SFO	Compositae	Wion
A	*Coccus viridis*	green scale	03/11	Hawaii	ORA	*Alpinia purpurata*	Kinsella
Q	*Planococcus minor*	pacific mealybug	03/10	Ghana/NY	SFO	yam	Wion
Q	*Plautia stali*	oriental stink bug	03/10	Hawaii	SFO	*Ocimum basilicum*	Lino
Q	*Paleocallidium rufipenne*	longhorned beetle	03/12	Asia	SFO	dunnage	Clifford
Q	*Paleocallidium rufipenne*	longhorned beetle	03/12	Asia	SFO	wood dunnage	Clifford
B	*Nezara viridula*	southern green stink bug	04/02	Hawaii	MEN	tea leaves	Stephens
Q	*Palmicultor palmarum*	palm mealybug	03/31	Hawaii	SBA	triangle palm	Janssen
Q	*Bucculatrix* sp.	ribbed cocoon maker	03/26	Texas	HUM	palm leaves	Spadoni
A	*Coccus viridis*	green scale	03/27	Hawaii	LAX	*Nephelium lappaceum*	Lee
Q	*Sybra alternans*	longhorned beetle	04/02	Hawaii	LAX	automobile	Lawrence
Q	*Rhizoecus hibisci*	root mealybug	04/07	Florida	FRE	majesty palm	Thompson
A	*Fiorinia theae*	tea scale	04/20		SJQ	*Camellia* sp.	Lansigan
Q	*Orchamoplatus mammaeferus*	croton whitefly	04/20	Hawaii	SBA	*Alyxia olivaeformis*	Heath
Q	*Palmicultor palmarum*	palm mealybug	04/21	Hawaii	SLO	*Cocos nucifera*	Focha
Q	*Rhizoecus hibisci*	root mealybug	04/17	Florida	SDG	*Ravenea* sp.	Desserich
Q	*Ipini* sp.	bark beetle	03/12	Asia	SFO	dunnage	Clifford
Q	*Rhizoecus hibisci*	root mealybug	04/17	Florida	SDG	*Arecastrum australe*	Desserich
Q	*Anoplolepis longipes*	longlegged ant	04/21	Hawaii	SAC	flowers	Omar
A	*Coccus viridis*	green scale	04/21	Hawaii	SON	*Alpinia purpurata*	Ramey
Q	*Crematogaster* sp.	ant	04/20	Central America	SBD	*Dracaena cincta*	Clark
B	*Diaphania nitidalis*	pickleworm	04/16	Dom. Republic	LAX	pickling cucumbers	Smice

Rating	Species	Common Name	Date	Origin	County	Host	Collector(s)
Q	*Euxesta* sp.	picture-winged fly	01/27	Florida	SMT	*Zea mays*	Buerer
A	*Ostrinia nubilalis*	European corn borer	05/01		MNT	canned corn	Oliver
Q	*Palmicultor palmarum*	palm mealybug	04/29	Hawaii	SJQ	raphis palm	Giesing
Q	*Hemiberlesia ocellata*	armored scale		Ecuador	LAX	*Musa* sp.	Lawrence
A	*Ceroplastes rubens*	red wax scale	05/06	Florida	ORA	*Syzygium javanicum*	Wynn
Q	*Anoplolepis longipes*	longlegged ant	05/07	Hawaii	SMT	palm fronds	Garibaldi
Q	*Geococcus coffeae*	soil mealybug	05/13	Hawaii	LAX	fishtail palm	Ruse
Q	*Nasonovia ribis-nigri*	currant-lettuce aphid	05/19	Italy	MAD	radicchio	Abel/Pyle
Q	*Nasonovia ribis-nigri*	currant-lettuce aphid	05/18	Italy	MAD	radicchio/chickory	Able
Q	*Rhizoecus americanus*	soil mealybug	05/08	Florida	LAX	*Ravenea rivularis*	Wegener
Q	*Acanthococcus azaleae*	azalea bark scale	05/08	Oregon	LAX	*Rhododendron* sp.	Awad
Q	*Orchidophilus* sp.	weevil	05/08	Hawaii	LAX	cut flowers	Humphreys
Q	*Rhizoecus hibisci*	root mealybug	06/02	Florida	LAX	*Phoenix/Ravenia* sp.	Ruse
Q	*Thrips orientalis*	thrips	06/18	Hawaii	SLO	*Ficus* sp.	Focha
Q	*Thrips orientalis*	thrips	06/18	Hawaii	SLO	*Ficus* sp.	Focha
Q	*Monomorium floricola*	ant	06/25	Hawaii	ORA	cut flowers	Sanford

Border Stations

Important "A", "B", and "Q" Rated Arthropods and Mollusks Intercepted through June 1998

Pest	Station	Date	Origin	Collector	Host
gypsy moth - *Lymantria dispar*	NE	10/27/97	Massachusetts	Friedman	RV chassis
gypsy moth - *Lymantria dispar*	YE	09/21/97	Michigan	Blakely	RV chassis
longan scale - *Thysanofiorinia nephelii*	DO	07/24/97	Taiwan	Rosecrans	*Litchi chinensis*
a weevil - *Sphenophorus* sp.	LO	07/20/97	Texas	Sheppard	backyard soil
an ant - *Technomyrmex albipes*	BL	03/05/97	Florida	Clifford	*Cocos nucifera*
an ant - *Technomyrmex albipes*	LO	04/09/97	Arkansas	Sheppard	soil
European corn borer - *Ostrinia nubilalis*	LO	10/29/97	South Carolina	Doyle	*Zea mays*
gracilariid moth - *Marmara* sp.	HO	12/06/97	Arizona	Leslie	*Citrus paradisi*
gracilariid moth - *Marmara* sp.	YE	10/30/97	New Mexico	Percy	*Citrus limon*
gracilariid moth - *Marmara* sp.	VI	11/02/97	Arizona	Calvery	*Citrus paradisi*
puss caterpillar - *Megalopyge opercularis*	BL	10/29/97	Texas	Villa	plants
gypsy moth - *Lymantria dispar*	NE	10/31/97	Massachusetts	Guthrie	horse trailor
gyspy moth - *Lymantria dispar*	NE	11/13/97	Pennsylvania	McDonald	tent trailor
gyspy moth - *Lymantria dispar*	NE	10/27/97	Massachusetts	Friedman	RV chassis
gypsy moth - *Lymantria dispar*	YE	09/20/97	Michigan	Blakely	RV chassis
gypsy moth - *Lymantria dispar*	LO	09/30/97	Michigan	Doyle	Wheel - under cap
zebra mussel - *Dreissena polymorpha*	LO	10/07/97	Michigan	Hamblet	Yacht
a picture winged fly - *Euxesta* sp.	WI	10/10/97	Texas	Vanhorn	*Carya illinoinensis*
vanda orchid scale - *Genaparlatoria pseudaspidiotus*	SM	09/16/97	Oregon	Wilson	*Mangifera indica*
vanda orchid scale - *Genaparlatoria pseudaspidiotus*	SM	09/15/97	Washington	Wilson	*Mangifera indica*
hickory shuckworm - *Cydia caryana*	LO	10/30/97	Texas	Vanhorn	*Carya illinoinensis*
hickory shuckworm - *Cydia caryana*	WI	11/07/97	Oklahoma	Bryant	*Carya illinoinensis*
hickory shuckworm - *Cydia caryana*	NE	11/06/97	Texas	Burgess	*Carya illinoinensis*
pecan weevil - *Curculio caryae*	WI	10/10/97	Texas	Vanhorn	*Carya illinoinensis*
Florida carpenter ant - *Camponotus abdom. floridanus*	VI	07/30/97	Florida	Granger	trailer
garden bagworm - *Apterona helix*	YE	10/28/97	Michigan	Khalil	RV chassis
vanda orchid scale - *Genaparlatoria pseudaspidiotus*	HO	07/07/97	Washington	Pastell	*Garcinia mangostana*
European corn borer - *Ostrinia nubilalis*	TR	11/16/97	Nebraska	Budewitz	*Zea mays*
pickleworm - *Diaphania nitidalis*	BL	11/21/97	Mexico	Klingenmeier	Cucumber
a leafhopper - *Draeculacephala* sp.	NE	07/27/97	Alabama	Derichsweiler	trailor floor
Florida carpenter ant - *Camponotus abdom. floridanus*	BL	10/28/96	Florida	Vasquez	plants w/ soil
a leafhopper - *Homalodisca* sp.	BL	08/13/97	Texas	Vasquez	plants w/ soil
a stink bug - *Chlorochoris* sp.	NE	02/17/97	Florida	Fradette	ferns/flowers
a whitefringed beetle - *Graphognathus* sp.	NE	11/06/97	Florida	Derichsweiler	self-mover floor
vanda orchid scale - *Genaparlatoria pseudaspidiotus*	DO	08/24/97	Washington	Villarreal	*Mangifera indica*
vanda orchid scale - *Genaparlatoria pseudaspidiotus*	DO	08/24/97	Washington	Wood	*Mangifera indica*
longan scale - *Thysanofiorinia nephelii*	HO	09/01/97	Washington	Lacy, Jr.	*Euphoria longan*
longan scale - *Thysanofiorinia nephelii*	HO	08/29/97	Washington	Lewis	*Euphoria longan*

Pest	Station	Date	Origin	Collector	Host
arrowhead scale - *Unaspis yanonensis*	HO	12/18/97	British Columbia	Whitman	*Citrus reticulata*
arrowhead scale - *Unaspis yanonensis*	HO	12/06/97	British Columbia	Morris	*Citrus reticulata*
boll weevil - *Anthonomus grandis*	NE	12/04/97	Texas	Bryant	*Gossypium* sp.
Pecan weevil - *Curculio caryae*	NE	12/04/97	Missouri	Bryant	*Carya illinoinensis*
gracilariid moth - *Conopomorpha sp.*	HO	07/12/97	Washington	Rooker	*Litchi chinensis*
a sharpshooter - *Draeculacephala portola*	VI	06/30/97	Mississippi	Calvery	trailer
Mexican mealybug - *Puto mexicanus*	TO	01/22/98	Mexico	Hutchinson	*Crataegus* sp.
sugarcane borer - *Diatraea saccharalis*	BL	01/22/98	Mexico	Villa	*Saccharum officinarum*
Oriental scale - *Aonidiella orientalis*	BL	01/20/98	Mexico	Villa	*Cocos nucifera*
Nantucket pine tip moth - *Rhyacionia frustrana*	NE	02/03/98	Texas	Lacy, Jr.	*Pinus* sp.
a snail - *Zachrysia provisoria*	BL	02/09/98	Florida	Klingenmeier	plants
European corn borer - *Ostrinia nubilalis*	LO	02/01/98	Colorado	Rudolph	*Zea mays*
a psyllid - *Pachypsylla* sp.	NE	02/04/98	Illinois	Daniels	automobile trunk
root mealybug - *Rhizoecus hibisci*	BL	03/27/98	Florida	Perez-Argueta	ornamental plants
false powderpost beetle - *Sinoxylon* sp.	NE	03/19/98	Columbia	Guthrie	plantains/wood pallet
Picture-winged fly - *Euxesta* sp.	BL	03/17/98		Klingenmeier	*Cucumis melo*
cutworm - *Euxoa* sp.	TO	01/25/98	Mexico	Riise	*Zea mays*
garden bagworm - *Apterona helix*	NE	03/05/98	New Hampshire	Freidman	RV chassis
scarab beetle - *Anomala ausonia*	NE	02/06/98	Ontario	Derichsweiler	trailor floor
gyspy moth - *Lymantria dispar*	LO	02/28/98	Michigan	McCollum	scaffolding tubes
trilobe scale - *Pseudaonidia trilobitiformis*	SP	05/01/98		Cochrane	
bean leaf beetle - *Cerotoma trifurcata*	NE	04/09/98	Arkansas	Bryant	rice/trailor bed
gyspy moth - *Lymantria dispar*	TU	04/23/98	New York	Dewalt	trailor chassis
Oriental beetle - *Anomala orientalis*	TR	03/24/98	New York	Ward	soil
a snail - *Bradybaena similaris*	BL	04/14/98	Florida	Gamez	plants
gracilariid moth - *Conopomorpha* sp.	HO	03/22/98	Taiwan	Hamilton	*Euphoria longan*
Pecan weevil - *Curculio caryae*	NE	03/24/98	Arkansas	Guthrie	*Carya illinoinensis*
gracilariid moth - *Marmara* sp.	DO	04/03/98	Oregon	Garrison	*Citrus paradisi*
gracilariid moth - *Marmara* sp.	DO	04/04/98	Oregon	Wood	*Citrus paradisi*
gracilariid moth - *Marmara* sp.	DO	04/09/98	Washington	Garrison	*Citrus paradisi*
gracilariid moth - *Marmara* sp.	LO	04/05/98	Arizona	Rudolph	*Citrus paradisi*
gracilariid moth - *Marmara* sp.	LO	04/09/98	California	Sheppard	*Citrus limon*
gracilariid moth - *Marmara* sp.	NE	04/11/98	Texas	Urquidi	*Citrus sinensis*
gracilariid moth - *Marmara* sp.	NE	04/12/98	Arizona	Urquidi	*Citrus reticulata*
an ant - *Pheidole* sp.	NE	04/09/98	Tennessee	Derichsweiler	nursery/moss
casebearing moth - *Coleophora* sp.	NE	04/08/98	New Hampshire	Derichsweiler	camper frame
gracilariid moth - *Marmara* sp.	VI	04/08/98	Arizona	Villegas	*Citrus paradisi*
gracilariid moth - *Marmara* sp.	LO	04/11/98	Florida	Hamblet	*Citrus paradisi*
gracilariid moth - *Marmara* sp.	DO	04/15/98	Oregon	Barrera	*Citrus paradisi*

Pest	Station	Date	Origin	Collector	Host
gracilariid moth - *Marmara* sp.	AL	04/12/98	Oregon	Leneave	*Citrus paradisi*
gracilariid moth - *Marmara* sp.	LV	05/04/98	Arizona	Atkinson	*Citrus paradisi*
gracilariid moth - *Marmara* sp.	DO	05/03/98	Idaho	Bienenfield	tangelo
gracilariid moth - *Marmara* sp.	LV	05/09/98	Arizona	Goodman	*Citrus paradisi*
gracilariid moth - *Marmara* sp.	DO	05/07/98	Washington	Clay	*Citrus sinensis*
gracilariid moth - *Marmara* sp.	LV	05/09/98	Arizona	Doyle	*Citrus paradisi*
sugarcane beetle - *Euetheola humilis rugiceps*	NE	05/22/98	Georgia	Bryant	trailor
a scale - *Pseudaonidia* sp.	SP		Florida	War	*Mangifera indica*
magnolia white scale - *Pseudaulacaspis cockerelli*	SP		Florida	War	*Mangifera indica*
Oriental beetle - *Anomala orientalis*	BL	06/05/98	Florida	Klingenmeier	plants
zebra mussel - *Dreissena polymorpha*	TR	06/04/98	Ohio	Baldridge	boat
a periodical cicada - *Magicicada* sp.	NE	06/16/98	Tennessee	McDonals	houseplants
gracilariid moth - *Marmara* sp.	DO	06/13/98	Oregon	Day	*Citrus paradisi*
gracilariid moth - *Marmara* sp.	AL	06/05/98	Montana	Leneave	*Citrus reticulata*
cowpea curculio - *Chalcodermus aeneus*	LV	06/01/98	Mississippi	Hamblet	*Phaseolus* sp.
gracilariid moth - *Conopomorpha* sp.	HO	05/27/98	Washington	Pastel	*Euphoria longan*

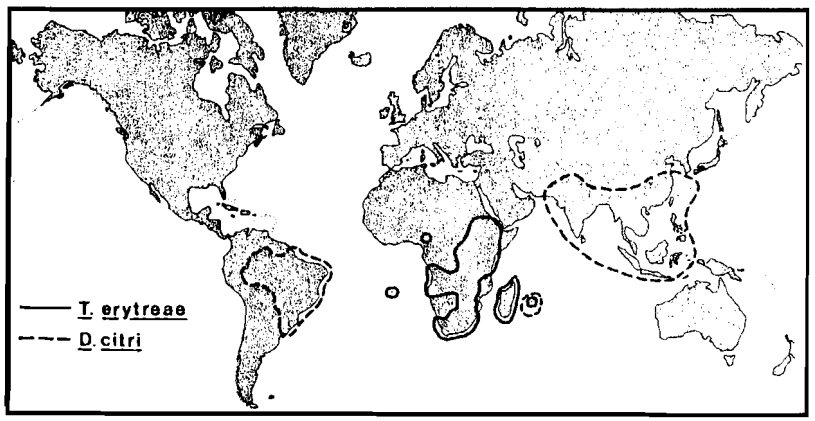
SIGNIFICANT FINDS IN OTHER STATES

ASIATIC CITRUS PSYLLID, *Diaphorina citri* -(Q)- This psyllid is a new United States record and was found in southeast Florida. It is known in Broward and Dade counties and is probably in other southern Florida counties. Asiatic citrus psyllid can reduce orchards to unproductive levels in two ways; by feeding on new growth, and by vectoring a serious bacterial disease. This disease, known as greening disease, is responsible for mottled leaves and the production of a poor quality fruit that retains portions of its green peel until maturity. In older papers, the causal agent was reported to be a virus, or a MLO (mycoplasma-like-organism). However, it was recently described as a gram negative bacterium. Greening is known to be transmitted by another psyllid, *Trioza erytreae,* in South Africa. Very similar diseases include likubin of Taiwan, vein-phloem degeneration of Indonesia, and yellow shoot of Mainland China. Diagnosis of these diseases is often difficult since symptoms can be the result of other disorders. Fortunately, greening disease has yet to be found in Florida or anywhere in the New World.

The following information is an excerpt from a report by Marjorie Hoy, Department of Entomology and Nematology, University of Florida, and Ru Nguyen, Division of Plant Industry, Florida Department of Agriculture and Consumer Services describing some important elements of the psyllid's affect on the host and of greening disease:

> High populations of *D. citri* cause feeding damage because they attack young tender growth, causing leaf distortion and curling. This damage results from the withdrawl of large amounts of sap from the foliage, heavy development of sooty mold on honeydew-covered leaves, and possibly from a toxic substance injected into the plant tissue. Greening symptoms include mottling and yellow veins on the leaves, out-of-season flowering, abnormal fruit drop, fruit lopsidedness, off-color fruit at harvest, and an unpleasant flavor in the juice. All species of citrus appear to be susceptible, but sweet orange, mandarin, and tangelo are most affected in Asia.

Asiatic citrus psyllid is distributed throughout southern and south-east Asia where it effects *Citrus* species and other Rutaceae. Its presence in the New World had previously been known only from Brazil (see map below, which also includes the known distribution of *Trioza erytreae*). DESCRIPTION AND IDENTIFICATION: Eggs of *D. citri* are laid in the spring and are imbedded in the plant tissue via an egg stalk. They are laid only on new growth or tender



shoots, usually in crevices. The eggs have an orange hue that is accentuated with heavy infestations. Nymphs hatch in about five days. There are five nymphal instars; the full grown nymph is light yellow with a trace of orange on the abdomen. The lifecycle takes about 20-40 days, and there may be up to 30 overlapping generations per year. Each female may lay up to 800 eggs during her two-month lifespan. This psyllid is most active during periods of new growth of citrus, and can be found in large numbers on the lower side of the leaves. Adults of *D. citri* are approximately the size of aphids (2.5 mm), but resemble small cicadas. They have long, simple, and segmented antennae and have pale brown pictured wings marked by a thick, central pale stripe.

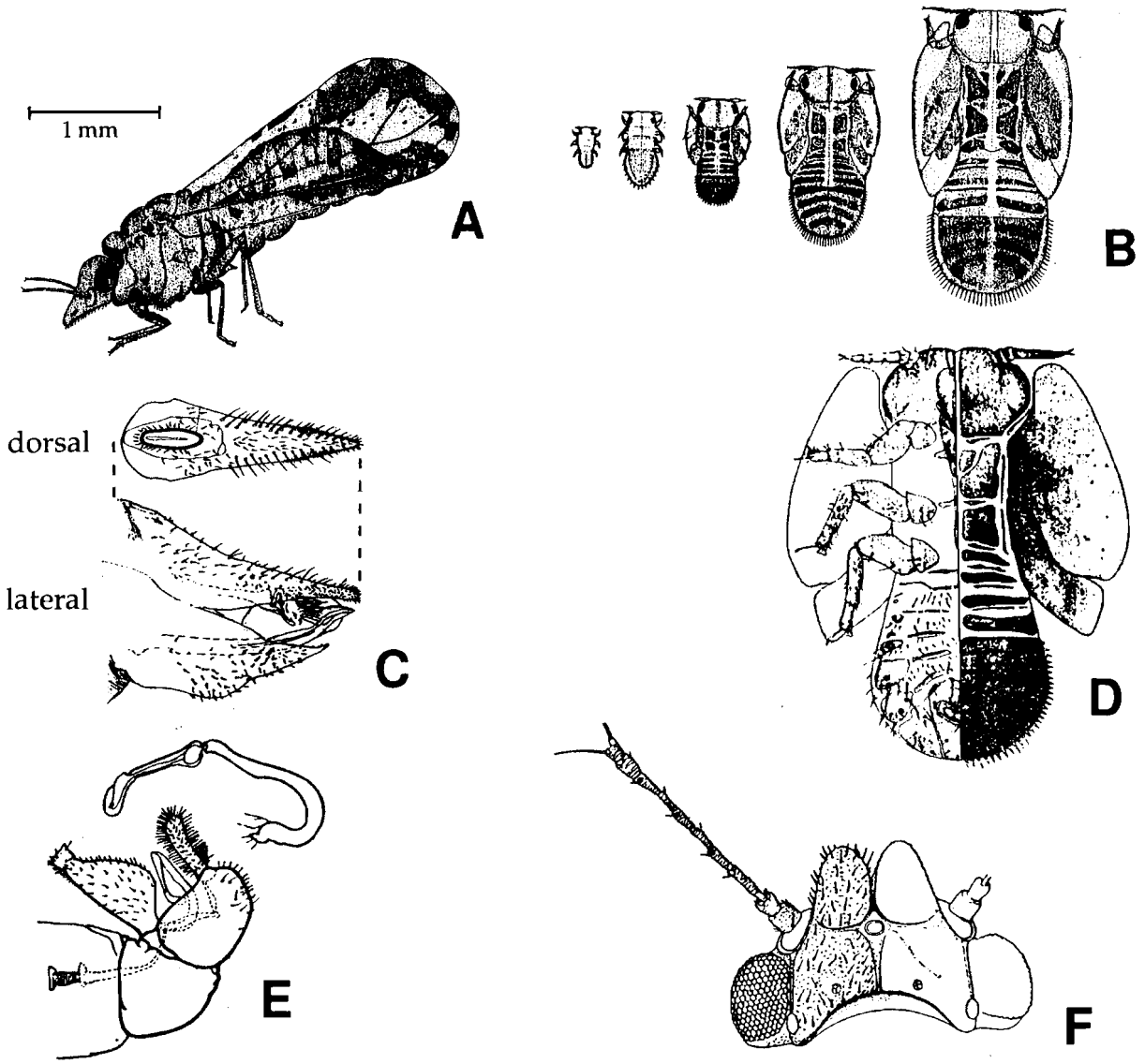


Fig. 7. Asiatic citrus psyllid, *Diaphorina citri.* A: adult; B: five nymphal instars; C: female ovipositor (dorsal and lateral); D: fifth instar nymph; E: male genital capsule (lateral); F: head of adult. Figures A & B, adapted from Husain, M. A. and Nath, D. 1927. Department of Agriculture in India Mem. (Ent. Ser.) 10(2), 27 pp. Figures C-F, adapted from Cooperative Economic Insect Report, 1959: Insects not known to occur in the United States, 9:24.

SMALL HIVE BEETLE , *Aethina tumida* -(Q)- This beetle, in the family Nitidulidae is related to the sap beetles and is known in its native South Africa as an apiary pest. This find in St. Lucie County, Florida, represents a Western Hemisphere record. The small hive beetles, as they are commonly called, are found in active bee hives and stored bee equipment. Here they feed on honey and pollen (see figure 8B). Adults are broad, flattened and about 5-7 mm long and dark brown in color, with an oval shape, similar to Coccinellidae (see figure 8A). The larvae are elongate, whitish grubs with rows of small spines along the back. Superficially, the larvae look very similar to wax moth larvae (subfamily Galleriinae) *Galléria mellonélla* (Linn.). However, the beetle larvae have larger legs, restricted to the thorax, and have no prolegs.

The burrowing larvae cause damage to the combs and kill bee broad. Infestation causes the bees to abandon the combs. The honey ferments when the beetle larvae defecate in the honey, producing a frothy mess in honey houses. Once the honey is contaminated, it is no longer salable, and moreover it is unpalatable to bees and cannot even be used as bee feed. The presence of these beetles is of concern to the economic integrity of apiary industries.

ASIATIC LONGHORNED BEETLE , *Anoplophora glabripennis* -- This insect, indigenous to China, Korea, and Japan, was found in the Chicago metropolitan area during July and August. Although this infestation does not fall within the time frame of this issue, its presence in the state of Illinois has been a serious threat, as biologists are finding the beetles in maple, box elder, locust, ash and elm trees. Three Chicago neighborhoods have been under quarantine; Ravenswood, Summit, and Addison. It was considered established in New York in 1996 (see CPPDR vol. 16 (3-6):60) where it attacked trees in Brooklyn and Amityville. Since the beetles live deep within the trees, the only eradication method is to cut down infested trees, chop them in a shredder, and burn the chips. It will attack trees of all ages and health, and its ability to produce new adults each year, instead of every 2-4 years like other longhorn beetles, makes it even more threatening to hardwood species in this country.

Fig.8. Small hive beetle, *Aethina tumida*. A: dorsal view of adult; B: larvae infested honeycomb.
DPI photos taken by Jeff Lotz.

Recently Introduced Pests of *Eucalyptus*

With the discovery of the new lerp psyllid in California, and with the current state of joint cooperation between various agencies dealing with tree problems in the state, we were asked by Rod Lampman, Deputy Agricultural Commissioner in San Bernardino County, to supply a list of recently introduced pests that are problems on eucalyptus. For many years there were very few insects that could be found on eucalyptus of all types, and then only in small numbers in isolated instances. Now there is a large number of pest species, several of which are taking their toll on the health of many of the more common eucalyptus species. Starting with the discovery of the then undescribed eucalyptus psyllid (*Blastopsylla occidentalis*) in 1983, the following list covers the recently introduced species, the date and location of the first record, and the dates and locations for each new county record.

Pest Name	Date found	County	City
Eucalyptus psyllid *(Blastopsylla occidentalis)*			
	04/08/83	Los Angeles *	Sylmar
	04/17/83	Alameda	Sunol
	04/27/83	Orange	Trabuco Canyon/ Yorba Linda
	05/02/83	San Bernardino	R. Cucamonga
	05/06/83	San Diego	La Jolla/Balboa Pk
	05/13/83	Ventura	Ventura/Fillmore Moorpark
	05/18/83	Santa Barbara	Santa Barbara
	03/08/89	Riverside	Corona
	07/24/91	Santa Cruz	Santa Cruz
	10/02/91	San Joaquin	Stockton
	08/06/91	Monterey	Salinas
	08/20/94	Sacramento	Sacramento
Tristania psyllid *(Ctenarytaina longicauda)*			
	05/19/83	San Diego *	Clairemont
	02/16/84	Orange	Huntington Beach
	10/08/84	Santa Barbara	Santa Barbara
	08/20/86	Santa Clara	San Jose
	06/05/89	Ventura	Ventura
	09/14/90	San Mateo	Colma (Nursery)
	08/22/91	Los Angeles	Carson (Nursery)

(Continued)

Pest Name	Date found	County	City
Eucalyptus borer *(Phoracantha semipunctata)*			
	11/03/84	Orange *	El Toro
	03/18/85	Riverside	Corona
	03/22/85	San Diego	San Onofre
	04/10/85	Los Angeles	Long Beach
	09/03/85	San Bernardino	Fontana
	12/01/87	Ventura	Santa Paula
	07/13/88	Santa Barbara	Santa Barbara
	02/02/89	Alameda	Fremont
	03/10/89	Contra Costa	Concord
	10/19/90	Monterey	Big Sur
	01/28/91	Solano	Benecia
	02/04/91	Sonoma	Sonoma
	03/27/91	San Mateo	Menlo Park
	09/01/92	Sacramento	Fair Oaks
	07/17/93	San Joaquin	Lodi
	11/15/93	Napa	Napa
	10/16/95	Glenn	Orland
	03/22/96	Tehama	Anderson
	01/21/97	Tulare	Woodlake
	10/29/97	Madera	Madera
Blue gum psyllid *(Ctenarytaina eucalypti)*			
	01/25/91	Monterey *	Prunedale
	06/12/91	San Benito	Aromas
	06/14/91	Santa Cruz	Watsonville
	07/25/91	Los Angeles	Los Angeles
	07/30/91	Orange	Tustin
	07/31/91	Alameda	Oakland
	08/07/91	Contra Costa	Brentwood
	08/07/91	Santa Clara	Sunnyvale
	08/08/91	Solano	Rockville
	08/13/91	San Luis Obispo	Arroyo Grande
	08/26/91	Santa Barbara	Santa Maria
	08/26/91	San Diego	Fallbrook
	09/03/91	Ventura	Fillmore
	10/23/91	San Joaquin	French Camp
	11/20/91	Sacramento	Meadowview
	03/12/92	Sonoma	Penngrove
	03/26/92	San Bernardino	Alta Loma

(Continued)

Pest Name	Date found	County	City
Blue gum psyllid, continued			
	04/02/92	San Mateo	Burlingame
	04/11/92	Tuolumne	Jamestown
	04/17/92	Tulare	Woodlake
	04/20/92	Stanislaus	Modesto
	04/24/92	Napa	Napa
	05/12/92	Fresno	Clovis
	05/19/92	Merced	Los Banos
	05/26/92	Yolo	Davis
	06/16/92	Placer	Auburn
	06/18/92	Riverside	Temecula
	10/08/92	Mendocino	Redwood Valley
	06/07/93	Marin	Fairfax
	07/29/94	Humboldt	Eureka
Eucalyptus psyllid *(Ctenarytaina spatulata)*			
	07/22/91	Orange *	Tustin
	07/24/91	Santa Cruz	Santa Cruz
	08/31/91	Monterey	Prunedale
Australian gum tree weevil *(Gonipterus scutellatus)*			
	03/14/94	Ventura *	Ventura
	01/18/96	Los Angeles	Malibu
Australian eucalyptus beetle *(Phoracantha recurva)*			
	06/24/95	Riverside *	Riverside
Eucalyptus gall wasp (*Aprostocetus* sp.)			
	02/02/95	Santa Barbara *	Carpinteria
	02/06/95	Orange	Westminster
	02/06/95	San Bernardino	R. Cucamonga
	06/21/95	Los Angeles	Baldwin Park

(Continued)

Pest Name	Date found	County	City
Lemon gum psyllid *(Cryptoneossa triangula)*			
	07/13/95	Orange *	Anaheim
Redgum lerp psyllid *(Glycaspis brimblecombei)*			
	06/17/98	Los Angeles *	El Monte
Australian tortoise beetle (*Trachymela sloanei* (Blackburn))			
	02/98	Riverside *	La Sierra
	06/98	Orange	Tustin

* Also New North American Record

BOTANY HIGHLIGHTS

On the following pages are two items dealing with the California distribution of the "A" rated introduced pest plant, bladder-flower, *Araujia sericifera*. First is a distribution map, and second there are multiple pages containing the current verified localities of this weed in the state. These data have been compiled by Dr. Doug Barbe, our former Botanist/Plant Taxonomist. Doug retired a year ago but continues working with our new Botanist, Dr. Fred Hrusa and CDFA's Integrated Pest Management Branch, to compile data records of the "A" and "B" rated weeds in the state.

For a listing of rated California weeds see the article by Doug Barbe in the October-November, 1995 issue of CPPDR 14(5-6):77-110.

STATE OF CALIFORNIA • DEPARTMENT OF FOOD AND AGRICULTURE

DIVISION OF PLANT INDUSTRY • PLANT PEST DIAGNOSTICS BRANCH • BOTANY

DETECTION MANUAL
D. T. 6:46a
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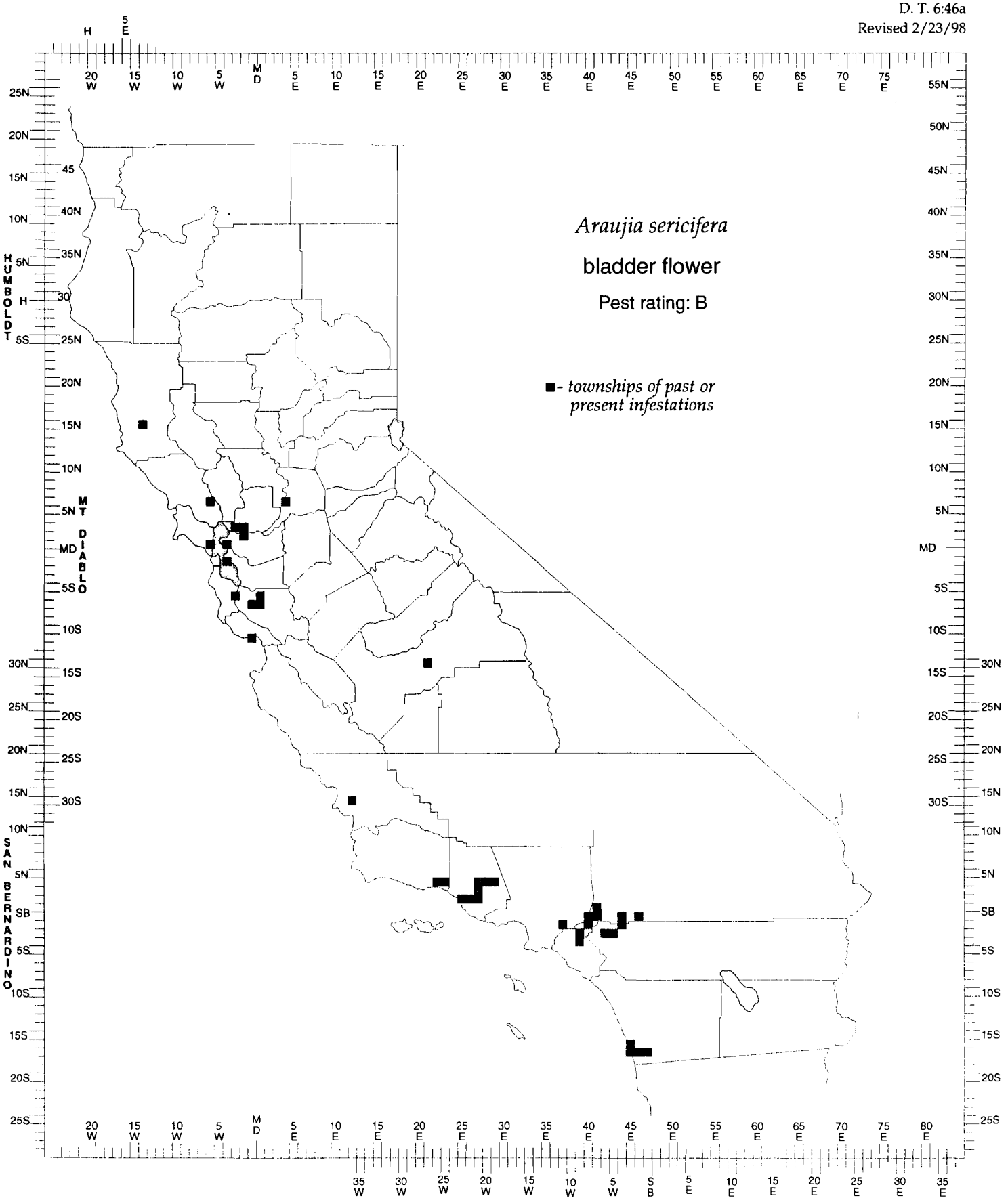

***Araujia sericifera* Brot.** **"bladder-flower"**

County	Date	Twp	Rng	Sec	BM	Net Ac	Grs Ac	#Plts	Collector	Af	Herbarium	Notes
Alameda County												
1 ALA	1941/08/03	T01S	R04W	S—	M				Brucelin	O	CAS	Berkeley; Blake Garden, cultivated.
1 ALA	1988/07/08	T03S	R02W	S—	M				Stockel	C		Castro Valley; Castro Valley.
1 ALA	1995/10/25	T03S	R02E	S—	M				Curtner	C		Livermore; residence garden 981 Alden Ln.
Butte County												
4 BUT	1905/10/31	T22N	R01E	S—	M				anon.	U	UC	Chico; Cultivated, Chico Nursery Co.
Contra Costa County												
7 CCA	1969/03/11	T01N	R04W	S—	M				DeBoer	C		Richmond; 626 33rd St, Tomlinson property.
7 CCA	1985/09/17	T02N	R01W	S—	M				Stout	C		Concord; 3961 Juniper Dr, Dana property.
Fresno County												
10 FRE	1971/09/29	T 14S	R22E	S—	M	<0.01	<0.01	1	Medeiros	C		Sanger; Perez property.
Los Angeles County												
19 LAX	1962/11/07	T02S	R11W	S—	S				Yutani	O		Whittier; N/Beverly Blvd, near Rose Hills Cemetery.
19 LAX	1965/02/15	T01N	R11W	S—	S				Stumbo	O	RSA	Monrovia; Roadbank, Lux Arboretum Annex.
19 LAX	1965/10/04	T01S	R08W	S04	S				Thorne 41863	U	RSA	Claremont; Pest in Rancho Santa Ana Botanic Garden.
Marin County												
21 MRN	1963/08/26	T01N	R06W	S—	M				Flack	O	CAS	Kentfield; Cultivated.
Mendocino County												
23 MEN	1990/09/17	T15N	R14W	S—	M				Xerogeanes	C		Ukiah; Low Gap Rd, garden. County report.
Mono County												
26 MNO	1991/11/22	T01S	R02W	S36	S			1	Crowley	C		Yuccupa; 11879 Adams.
Napa County												
28 NAP	1971/03/21	T08N	R06W	S—	M				Fuller	S		St Helena; Beringer Bros Winery, ornamental planting.
Orange County												
30 ORA	1957/04/25	T03S	R09W	S—	S				Millar	O		Placentia; 4741 S Valencia Ave, Millar property.
30 ORA	1968/08/24	T04S	R09W	S—	S				Clarke	U	UCR	Anaheim; Santa Ana Canyon Rd.

County	Date	Twp	Rng	Sec BM	Net Ac	Grs Ac	#Plts	Collector	Af	Herbarium	Notes
Riverside County											
33 RIV	1970/07/27	T02S	R04W	S29 S				Clarke	U	UCR	Riverside; S/Pennsylvania Ave, W/Canyon Crest Dr.
33 RIV	1971/11/01	T02S	R04W	S19 S		40.00		Davis	S		Riverside; NW cor Blaine St and Gage Canal.
33 RIV	1973/08/27	T03S	R05W	S03 S				Harris	C		Riverside; 2858 Madison St, Mayes property.
33 RIV	1982/12/—	T03S	R06W	S— S				Sanders	U		Corona; Hedge, 2 mi S/Hwy 91 on W/side Lincoln Ave.
Sacramento County											
34 SAC	1964/03/16	T08N	R04E	S01 M				Fuller 11727	S	CDA	Sacramento; Capitol Park.
34 SAC	1966/09/12	T08N	R04E	S01 M				Scribner	C		Sacramento; 2144 3rd Ave, Harton property.
San Bernardino County											
36 SBD	1961/09/11	T02S	R08W	S10 S				Pratt	C	CDA	Chino; Chino.
36 SBD	1971/06/08	T01S	R08W	S— S				Cruzen	C		Upland; Upland.
36 SBD	1989/10/24	T01N	R07W	S21 S	0.25	1.00		Hitchcock	S		Rancho Cucamonga; NE/Carnelian and Hidden Farm Rds.
36 SBD	1991/11/04	T01S	R08W	S14 S				Davey	C		Montclair; I-10 eastbound 100 yds W/Benson in Acacia trees.
36 SBD	1992/08/28	T01S	R04W	S34 S	0.01	0.01	1	Moon	C		Colton; Residence garden, 23920 Prado Ln.
San Diego County											
37 SDG	1895/07/—	T17S	R03W	S— S				Brandegee	O	UC	San Diego; San Diego.
37 SDG	1961/11/29	T12S	R02W	S— S				Franklin	C	CDA	Escondido; Escondido.
37 SDG	1966/02/24	T17S	R02W	S— S				Opel	C		San Diego; 2685 Newton Ave, ornamental.
37 SDG	1974/06/18	T17S	R01W	S19 S			1	Davis	S		Sunnyside; Briarwood and Sweetwater Rds.
37 SDG	1975/10/17	T17S	R02W	S15 S			1	Gordon	C		San Diego; 5651 Bonita Dr.
37 SDG	1977/02/23	T16S	R03W	S— S			1	Opel	C		San Diego; 4118 Arizona St.
San Joaquin County											
39 SJQ	1913/07/30	T01S	R07E	S— M				Blaisdell	O	CAS	Manteca; Cultivated.
San Luis Obispo County											
40 SLO	1992/08/11	T30S	R12E	S35 M			1	Doran	C		San Luis Obispo; Marsh St.
40 SLO	1998/02/19	T30S	R12E	S26 M		0.01		Doran	C		San Luis Obispo; residence garden, 1502 Higuera St.
San Mateo County											
41 SMT	1978/10/02	T02S	R04W	S— M			1	Voss	C		Redwood City; 1424 Middlefield Rd.
Santa Barbara County											
42 SBA	1959/05/07	T04N	R25W	S— S				Pollard	O	CAS	Carpinteria; Carpinteria.
42 SBA	1961/09/13	T04N	R25W	S— S				Pollard	O	CAS RSA	Carpinteria; lemon grove.
42 SBA	1966/06/26	T04N	R27W	S— S				Pollard	O	CAS	Montecito; Barker Pass Rd.

County	Date	Twp	Rng	Sec BM	Net Ac	Grs Ac	#Plts	Collector	Af	Herbarium	Notes
Santa Clara County											
43 SCL	1955/11/21	T06S	R03W	S— M				Thomas 5511	U	DS	Palo Alto; Jordan Hall, Stanford campus.
43 SCL	1966/03/23	T07S	R01E	S05 M				Mutzenberg	C		San Jose; N 12th and E Empire Sts, Sanchez property.
43 SCL	1966/09/08	T07S	R01E	S14 M				Cottle	C		San Jose; 1072 S 7th St, Viteck property.
43 SCL	1972/02/28	T06S	R01E	S32 M				Ferrera	C		San Jose; San Jose.
43 SCL	1994/11/22	T07S	R01W	S23 M				Alaimo	S		San Jose; residence garden, 906 Oakdale Place.
Santa Cruz County											
44 SCR	1993/09/28	T11S	R01W	S08 M				Perry	C		Santa Cruz; residence garden, 2450 Paul Minnie Ave.
Solano County											
48 SOL	1975/10/27	T03N	R03W	S— M				DeHoop	C		Vallejo; 30 Hermosa Ave, Johnson property.
Ventura County											
56 VEN	1958/05/27	T02N	R21W	S— S				Jones	C		Camarillo; Marvel and Bean.
56 VEN	1959/07/01	T02N	R21W	S— S				Commiss.	C		Camarillo; Santa Rosa Valley Rd.
56 VEN	1959/07/01	T04N	R20W	S— S				Commiss.	C		Santa Paula; East Telegraph Rd.
56 VEN	1961/07/07	T04N	R21W	S— S				Holmer	C	CDA	Santa Paula; Santa Paula Canyon.
56 VEN	1962/10/19	T04N	R19W	S— S				Pollard	O	CAS	Ventura; NW/Ramona St at SPRR.
56 VEN	1967/08/11	T02N	R23W	S— S				Pollard	O	CDA RSA	Ventura; Ventura Ave at Fraser Ln.
56 VEN	1968/08/23	T02N	R23W	S— S				Weiss	C		Ventura; 1879 San Nicholas St.
56 VEN	1972/06/14	T02N	R23W	S04 S				Hartman	C		Ventura; Greenthumb Inc, 1899 Victoria Ave.
56 VEN	1983/02/16	T02N	R22W	S06 S				Cozzola	C		Ventura; Day and Loma VistaRds.
56 VEN	1983/07/11	T03N	R21W	S16 S				Cozzola	C		Santa Paula; 412 Trent Lane.

The following is a cumulative index beginning with CPPDR issue 4(1), 1985, through the current issue, 17(1-3), 1998.

Abgrallaspis palmae, 12(3-4):88
Abgrallaspis sp., 11(5-6):84, 14(3-4):34
Acacia armata, 9(3-4):74
Acacia baileyana, 6(1):7, 9(3-4):137
Acacia cornigera, 16(3-6):33
Acacia decurrens, 9(3-4):137
Acacia farnesiana, *16(3-6):33,43*
Acacia melanoxylon, 8(1-2):32
Acacia podalyriaefolia, 6(1):7
acacia psyllid, 5(3):226, 6(1):6
acacia scorch, 8(1-2):32
Acacia smallii, 15(1-2):5
acacia trees, 6(1):6
Acaena novae-zelandiae, 9(12):4
Acalymma vittatum, 11(5-6):86
Acalypha sp., 13(1-2):15
Acarapis woodi, 4(1):18, 4(2):53, 4(5):170, 5(1):201, 5(6):288, 6(1):4, 6(3):33, 10(5-6):67
acarid mite, 4(1):18, 4(2):53, 4(5):170, 5(1):201, 5(6):288
acarine mite, 10(5-6):67
Acer campestre, 12(3-4):86
Acer ginnala, 12(3-4):86
Acer globosum, 12(3-4):86
Acer macrophyllum, 9(3-4):137
Acer palmatum, 12(3-4):86
Acer platanoides, 12(3-4):86
Acer rubrum, 5(1):194
Acer spp., 5(6):278
Achatina fulica, 11(1-2):11
Achras zapota, 5(3):221
Acidovorax avenae subsp. citrulli, 14(3-4):44
Acizzia acaciae-baileyanae, 6(1):6, 6(3):36, 8(1-2):3, 8(3-4):39, 9(1-2):62, 10(1-2):12, 16(1-2):13
Acizzia (Psylla) uncatoides, 6(1):7, 8(3-4):39
Acizzia sp., 11(1-2):7
Acroptilon repens, 13(3-4):40
Acrosternum hilare, 4(5):172, 5(5):262
Actias luna, 11(5-6):86
Aculus cornutus syn., 4(1):19
Aculus fockeui, 4(1):19
acuminate scale, 4(3):96
Acutaspis decorosa, 5(1):203
Acythopeus curvirostris, 4(5):170
address change, 6(5):58
Adelges piceae, 5(3):227
Adoretes sinica, 4(1):21
aechmea scale, 11(5-6):84
Aegilops cylindrica, 8(3-4):77, 9(3-4):75, 11(1-2):20,23, 13(3-4):37,39
Aegilops ovata, 9(3-4):76
Aegilops triuncialis, 7(1-4):25,30, 9(3-4):77, 11(1-2):20,25, 12(1-2):31, 12(3-4):62, 13(3-4):41
Aegle marmelos, 5(3):221
Aeolothrips collaris, 16(3-6):44
Aeolothrips ericae, 14(1-2):6-7
Aeolothrips spp., 14(1-2):6
Aeschynomene rudis, 9(3-4):126, 12(3-4):63
Aesculus californica, 9(3-4):137
Aesculus carnea, 9(3-4):137
Aethina tumida, 17(1-3):20
African pumpkin fly, 6(3):31
African rue, 7(1-4):23
Africanized honey bee, 4(4):104, 7(5-6):100, 8(5-6):107, 9(1-2):67, 9(5-6):173, 10(1-2):18-19, 10(3-4):51, 10(5-6):83-84, 11(1-2):14, 12(1-2):19-20, 12(3-4):90, 14(1-2):3, 14(3-4):25, 14(5-6):63, 15(1-2):3, 15(3-4):71, 15(5-6):151,158-9, 16(1-2):11, 16(3-6):40, 17(1-3):4,11
African violets, 15(1-2):5
Afzelia sp., 7(1-4):10, 8(1-2):1
Agallia barretti, 9(3-4):137
agave, 4(2):600
aglaonema scale, 11(5-6):84, 12(1-2):12,14
Aglaonema, 15(3-4):70
Aglaonema sp., 5(5):267
Agrobacterium radiobactor, 4(2):40
Agrobacterium rhizogenes, 4(2):41
Agrobacterium tumefaciens, 4(2) 39
Agropyron elongatum, 5(1):206
Agropyron repens, 9(3-4):78
Agrostis spp., 4(3):70, 4(5):122
Agrotriticum sp., 5(1):206
airport blitz, 9(1-2):63-66
airport blitz (2nd), 9(3-4):142-147
alazon mealybug, 5(3):231, 5(6):290, 12(1-2):12
Albizia sp., 11(1-2):9
albizia tree, 5(3):225
Aleuroclava jasmini, 13(1-2):16, 15(5-6):156,16(3-6):56
Aleurodicus dispersus, 4(4):111, 5(3):233, 5(5):270, 5(6):292
Aleurodicus dugesii, 11(5-6):78-81, 14(5-6):72
Aleurothrixus antidesmae, 10(5-6):73,74
Aleurothrixus floccosus, 6(1):8, 6(3):36, 9(5-6):161, 11(5-6):81, 13(1-2):16
Aleurothrixus nr.*floccosus*, 5(3):231
Aleurotrachelus sp., 11(5-6):82
Aleurotuberculatus jasmini, 15(5-6):156-7
Aleurotuberculatus minutus, 13(5-6):87
Aleurotulus anthuricola, 12(3-4):88
alfalfa, 4(4):112,115, 5(3):230, 7(1-4): 9
alfalfa dwarf, 14(5-6):64
Alhagi maurorum, 9(1-2):5, 9(34):127, 12(3-4):52,55, 13(1-2):25
alkali grass, 7(1-4):9, 7(5-6):81
alligatorweed, 8(5-6):109, 9(1-2):6, 13(1-2):26, 15(3-4):82
Allium paniculatum, 9(3-4):79
Allium vineale, 9(3-4):80, 11(1-2):20,24, 11(3-4):54,55
almond, 4(4):110
almond scorch, 14(5-6):64
Alnus glutinosa, 5(3):225
Alnus rubra, 6(3):55
Alternanthera philoxeroides, 8(5-6):109, 9(1-2):6, 13(1-2):26, 15(3-4):82
Amaranthus retroflexus, 4(2):56
Amaurorhinus bewickianus, 8(1-2):17
Ambrosia trifida, 9(3-4):81
American corn leafhopper, 11(3-4):48
American Dagger nematode, 16(1-2):25
American palm cixiid, 9(12):48
Amorbia emigratella, 12(3-4):89
Anagyrus sp., 4(3):89
Anaphoidea nitens, 13(1-2):5
Anaphothrips, 15(5-6):155-156
Anaphothrips longipennis, 15(5-6):156
Anaphothrips minutus, 15(5-6):156
Anaphothrips obscurus, 15(5-6):155
Anaphothrips orchidii, 15(5-6):156
Anaphothrips reticulatus, 15(5-6):156
Anaphothrips secticornis, 15(5-6):156
Anaphothrips stanfordii, 15(5-6):156
Anaphothrips tricolor, 15(5-6):156
Anascirtothrips arorai, 16(3-6):60
Anastrepha fraterculus, 6(1):14

Anastrepha ludens, 4(2):52,4(4):108, 5(1):201, 5(5):257, 5(6):286, 7(1-4):7,7(5-6):77,8(1-2):4, 8(5-6):96, 9(1-2):48,66, 9(3-4):131,135, 9(5-6):164, 10(3-4):38, 10(5-6):59,63, 11(1-2):4,5, 11(34):37,38, 11(5-6):71,75, 12(1-2):3, 12(3-4):69, 79,91, 12(5-6):119,123, 13(1-2):3, 13(3-4):56, 13(5-6):79,82, 14(1-2):3, 14(3-4):25, 14(5-6):62, 15(1-2):3, 15(3-4):72, 16(1-2):9, 16(3-6):38,17(1-3):3
Anastrepha obliqua, 5(6):291,6(1):14, 8(3-4):46, 8(5-6):101, 11(3-4):37,43, 12(3-4):69,79
Anastrepha serpentina, 8(3-4):56
Anastrepha striata, 8(3-4):48,10(5-6):59, 11(1-2):17, 15(3-4):73, 17(1-3):4
Anastrepha suspensa, 11(1-2):17, 12(3-4):91, 17(1-3):3
Andaspis punicae, 10(5-6):75,76
Annona, 8(3-4):48
annona seedborer, 10(3-4):49
annosus root rot, 6(3):55
Anomala orientalis, 4(1):21,5(3):233, 5(5):270
Anoplophora glabripennis, 16(3-6):60,17(1-3):20
Anthemis cotula, 8(1-2):29
Anthonomus grandis, 4(1):17,4(2):52, 5(1):201, 5(3):223, 5(5):261, 5(6):287, 7(5-6):99, 8(5-6):101, 10(5-6):66-67,13(3-4):67,16(1-2):11
Anthurium, 15(5-6):160
anthurium whitefly, 12(34):88
ants, 5(3):233, 5(6):292, 6(1):2
Aonidiella aurantii, 5(5):270
Aophora spp., 4(3):81
Aphelenchoides besseyi, 16(3-6):65
Aphelenchoides fragariae, 4(1):1
Aphelenchoides ritzemabosi, 15(3-4):84
Apis mellifera, 4(5):156
Apis mellifera scutellata, 4(4):104, 4(5):154, 6(1):12,7(5-6):100, 8(5-6):107, 9(1-2):67, 10(1-2):18-19, 10(5-6):83-84, 11(1-2):14, 12(1-2):19-20, 12(3-4):90, 14(1-2):3, 14(3-4):25, 14(5-6):63, 15(1-2):3, 15(3-4):71, 15(5-6):151,158-9, 16(1-2):11, 16(3-6):40,17(1-3):4,11
Apis mellifera scutellata hybrids, 10(3-4):51
apple, 4(5):154,164,168
apple ermine moth, 5(1):208
apple maggot, 5(3):222,5(5):258,265, 6(3):31,35,50,6(5):71, 7(5-6):78, 8(3-4):46,8(5-6):109,9(3-4):131,133,136, 9(5-6):166,178, 10(5-6):64, 11(5-6):71,76, 14(3-4):27, 15(5-6):152
apple pith moth, 12(1-2):17-19
apples, 5(1):202
apricot, 4(5):164
Aprostocetus sp., 10(3-4):38,42, 14(1-2):5-6, 14(3-4):28,17(1-3):23
Apterona crenulella, 4(4):114
Apterona crenulella "helix", 14(3-4):32
Apterona helix, 5(1):202
Apterothrips secticornis, 15(5-6):156
Apterothrips stanfordii, 15(5-6):156
Araecerus fasciculensis, 12(5-6):124
Araecerus fasiculatus, 5(5):267, 15(1-2):18, 15(3-4):73-6
Aranjia sericifera, 9(3-4):82,12(1-2):32, 17(1-3):25-29
Arbutus menziesii, 10(1-2):14
Archachatina marginata, 11(12):10-11
Arctiid moth, 12(3-4):89
Arctostaphylos, 13(1-2):20-21
Arctostaphylos densiflorus, 13(1-2):20-21
Arctotheca calendula, 7(1-4):23,9(1-2):7,45, 11(1-2):20,22
areca palm, 5(1):203, 5(3): 230
Arecastrum romanzoffiana, 14(5-6):72
Arecastrum sp., 17(1-3):11
Arizona fescue redondo, 7(1-4):9
armored scale, 5(3):230, 10(5-6):75,76, 14(3-4):34
arrowhead plant, 4(3):77
arrowhead scale, 12(1-2):21
artichoke, 6(1):22
artichoke fly, 13(3-4):57-61, 14(1-2):3, 15(3-4):71
artichoke thistle, 9(3-4):95, 13(3-4):57, 13(5-6):96, 14(1-2):19
Arytaina genistae, 12(3-4):88
Arytainilla spartiophila, 14(1-2):3
asclepias mealybug, 13(5-6):84-85
ash, 6(1):11
ash psyllid, 6(1):9, 10(1-2):12, 12(1-2):11, 14(3-4):28, 15(1-2):12
ash whitefly, 7(1-4):10,7(5-6):80,8(1-2):14, 8(5-6):104, 107, 9(1-2):59, 9(3-4):136, 154, 9(5-6):166-169, 10(1-2):12-13, 10(3-4):43, 10(5-6):68-69,70, 14(1-2):8
ash/lilac borer, 4(2):37,58, 4(4):114
Asian ambrosia beetle, 13(5-6):85
Asian maple leafhopper, 12(3-4):86-87
Asiatic citrus psyllid, 17(1-3):18-19
Asiatic garden beetle, 4(1):21
Asiatic longhorned beetle, 16(3-6):60,17(1-3):20
asparagus, 4(4):112, 5(5):266
asparagus aphid, 4(1):19, 4(4):114, 4(5):168, 5(3):226, 5(5):266, 5(6):290, 6(1):2
Asparagus officinalis, 4(1):19
Aspidiotus destructor, 5(6):292
Aspidiotus excisus, 11(5-6):84, 12(1-2):12,14
Aspidiotus nerii, 12(1-2):12
aster, 4(3):70, 4(4):112
Asterolecanium, 9(1-2):47
Asterolecanium arabidis, 6(1):11, 11(5-6):81
Asterolecanium bambusae, 9(1-2):47
Asterolecanium pseudomiliaris, 9(1-2):47
Asterolecanium robusta, 9(1-2):47
Asynonychus, 16(3-6):49
Atrichonotus taeniatulus, 16(3-6):49
Australian bush cherry, 7(1-4):13
Australian eucalyptus beetle, 16(1-2):12,19, 17(1-3):23
Australian gum tree weevil, 14(1-2):3, 15(1-2):12,17(1-3):23
Australian seed beetle, 6(3):34
Australian sod fly, 5(5):266, 5(6):289, 6(1):9, 6(3):36,10(5-6):67, 11(5-6):81
Australian tortoise beetle, 17(1-3):4,5-6, 24,
Austrian fieldcress, 9(3-4):115
Austrian peaweed, 9(1-2):41
Avena sp., 5(1):206
avocado, 4(4):111,112, 8(3-4):48
avocado brown mite, 11(3-4):46
avocado mite, 11(3-4):46-47,13(1-2):3, 14(1-2):3, 14(3-4):27
avocado seed weevil, 7(56):83, 8(1-2):16
avocado thrips, 16(1-2):13, 16(3-6):33
awl nematode, 13(3-4):73
Ayza lutipes, 12(3-4):82
azalea bark scale, 5(3):230
azalea leaf gall, 4(5):120
baby's breath, 9(3-4):102
bacterial canker of tomato, 16(3-6):63
bacterial leaf blight, 4(3):77
bacterial leaf spot, 13(1-2):20-21
bacterial rating list, 4(1):31
Bactrocera correcta, 10(5-6):59, 11(3-4):37,43, 11(5-6):71,75,12(3-

4):69,78, 13(3-4):56, 13(5-6):79,82, 15(3-4):73, 16(3-6):38
Bactrocera cucurbitae, 13(1-2):3, 16(3-6):38
Bactrocera dorsalis, 10(3-4):38, 10(5-6):59,61-2,73, 11(1-2):4,5, 11(3-4):37,38, 11(56):71,75, 12(1-2):3, 12(3-4):69,77-8, 12(5-6):119,123,132, 13(1-2):3, 13(3-4):55, 13(5-6):79,82, 14(5-6):62, 15(1-2):3, 15(3-4):72, 15(5-6):151, 16(3-6):36-7,38
Bactrocera tryoni, 10(3-4):39
Bactrocera zonatus, 12(3-4):69,79, 13(3-4):56
bael, 5(3):221
baggage inspection blitz, 9(3-4):147-151
baileyana psyllid, 6(3):36, 8(12):3, 9(1-2):62, 10(1-2):12, 16(1-2):13
Baileyothrips arizonensis, 15(5-6):156
Balanococcus diminutus, 10(1-2) 3
Ballana sp , *14(1-2):4*
balsam woolly aphid, 5(3):227
bamboo diaspidid, 11(1-2):10
bamboo pit scale, 9(1-2):47
Bambusaspis bambusae, 9(1-2):47
Bambusaspis pseudomiliaris, 9(1-2):47
Bambusaspis robusta, 9(1-2):47
Bambusaspis spp., 9(1-2):47
banana, 4(5):164, 5(3):231, 5(6):290
banana mealybug, 15(3-4):70
banana thrips, 12(1-2):20-21
banana waterlily, 9(3-4):109
bandedwinged whitefly, 11(56):81
barb goatgrass, 7(1-4):25,30, 9(3-4):77, 11(1-2):20,25, 12(1-2):31, 12(3-4):62, 13(3-4):41
Barbe, Doug, 10(3-4):54
bark beetle, 16(3-6):56
barley, 4(3):85, 5(1):206, 7(1-4):9
Barrentine, Carl D., 7(1-4):19
Barrett's leafhopper, 9(3-4):137
basal rot, 4(2):43
Basidiomycete fungi, 6(3):52
basil, 4(2):57
Bauhinia mexicana, 4(4):111
bean, 4(4):112, 3(3):53, 7(1-4):9
bean weevil, 6(5):6
bearded creeper, 8(5-6):110, 9(1-2):18, 10(3-4):54,55, 11(3-4):54,57
bee-hive mite, 6(5):62
Begonia spp., 4(3):70
bell pepper, 4(2):56, 4(4):112, 4(5):154
Bell, T., 5(5):251
Belonolaimus longicaudatus, 11(1-2):3
Bemisia argentifolii, 13(1-2):3, 16(1-2):22
Bemisia tabaci, 10(3-4):33-37, 10(5-6):68,72, 11(3-4):48, 12(5-6):124, 13(1-2):3
Ben-Dov, Yair, 9(1-2):47
bentgrass, 4(5):122
Bephratelloides sp., 10(3-4):49,50
Ber, 5(3):22
bermuda grass, 4(4):114, 6(1):8, 7(1-4)19
Betula verrucosa syn., 8(6):122
Bezark, Larry G., 8(1-2):35
biddy-biddy, 9(1-2):4
big headed ant, 1(2):30, 1(4):46, 5(3):233, 5(5):270, 5(6):292
big leaf maple, 9(3-4):137
bignonia, 8(3-4):58
billbugs, 7(1-4):19
bird cherry-oat aphid, 8(3-4):39
birds eye spot, 4(4):117
birds nest fungi, 6(3):52
black acacia, 8(1-2):32
black cherry fruit fly, 5(5):260, 9(5-6):166, 14(5-6):62, 15(3-4):73
black citrus aphid, 15(5-6):161
black citrus scale, 11(5-6):86
black currant gall mite, 10(12):15-17
black parlatoria scale, 5(1):209
black pine, 6(1):11
black sage, 4(2):57
black spot disease, 4(3):77
black vine thrips, 13(3-4):65-67
black-headed ant, 10(5-6):68
black-tipped thrips, 10(3-4):43,44,45
blackberry, 4(5):164, 7(1-4):9
bladder-flower, 9(3-4):82, 12(1-2):32, 17(1-3):25-29
Blastodacna atra, 12(1-2):17-19
Blastopsylla occidentalis, 4(3):91, 10(3-4):47, 10(5-6):69, 13(3-4):65, 17(1-3):21
Blissus insularis, 4(4):114
blossom blight of iris, 4(3):74
blue grama, 7(1-4):9, 7(5-6):81
blue panicgrass, 9(3-4):110
bluegrass, 4(5):12
bluegum psyllid, 10(1-2):5, 10(3-4):38,43,47, 10(5-6):69,71, 11(1-2):7,8, 11(3-4):48, 11(5-6):81, 13(3-4):65,17(1-3):22
blueweed, 9(1-2):25
boll weevil, 7(5-6):99, 8(5-6):101, 13(3-4):67; 16(1-2):11
Bonell's planthopper, 4(4):114
border station, 10(3-4):52
bostrichid beetle, 8(3-4):59
Botryotinia convoluta, 4(3):74
Botrytis cinerea, 4(3):74
botrytis crown rot, 4(3):74
botrytis rhizome rot, 4(3):74
bottlebrush, 8(1-2):16
bougainvillea mite, 16(1-2):12
bougainvillea plants, 16(1-2):12
Bowen, Jeff, 6(5):67
boxwood scale, 4(3):96
Brachycolus asparagi, 4(1):19, 4(4):114, 4(5):168, 5(3):226, 5(5):266, 5(6):290
Brachycolus syn., 6(1):2
Brachycorynella asparagi, 6(1):2
Bradybaena similaris, 5(3):233, 5(5):270
bran, 7(1-4):15
Brassaia sp., 5(3):230
Brazilian pepper, 12(3-4):80,81
Brazilian pepper tree, 7(1-4):3
Brisbane box tree, 4(5):153, 6(3):39
broadheaded sharpshooter, 4(5):166
bromegrass, 5(1):206
bromeliad mealybug, 5(3):231
Bromus madritensis, 5(1):206
Bromus unioloidae, 5(1):206
bronze leaf beetle, 5(5):266
brown citrus aphid, 11(1-2):11-14, 12(3-4):90, 15(5-6):160, 16(1-2):15
brown speckled leafhopper, 9(1-2):48
brown-ring disease, 4(1):1
Bryophyllum sp., 4(2):39
Brugmansia candida, *15(1-2):5*
Bujo boreas, 7(1-4):19
Bujo cognatus, 7(1-4):19
Bulletin of the, CDFA, 4(4):114
Burgess, Becky, 6(5):67
burrowing bug, 12(3-4):89
burrowing nematode, 15(3-4):87, 16(3-6):66
bush bean, 4(4):112
Buxton, G., 4(3):66
CA Plant Disease Conference, 5(5):254
Cacopsylla pyricola, 5(3):219
cactus mealybug, 9(1-2):47
caesalpinia psyllid, 16(3-6):42
cajeput, 11(1-2):21
calamondin tree, 6(1):11
California buckeye, 9(3-4):137
California pest rating changes, 15(3-4):141
Caliscelis bonellii, 4(4):114
Callison, Bill L., 4(2):49
Calophya rubra, 7(1-4):3,13

Calophya schini, 4(4):114, 4(5):153,168, 5(1):201, 5(3):229, 5(5):266, 6(3):36, 7(1-4):3
camelthorn, 9(1-2):5, 9(3-4):127, 12(3-4):52,55, 13(1-2):25
camphor thrips, 11(3-4):44-45
Camponotus quercicola, 5(3):229
Camponotus variegatus, 9(3-4):154
Canada thistle, 5(6):292, 7(1-4):25, 9(3-4):92, 12(1-2):35, 13(3-4):48
canary grass, 7(1-4):9
caneberry, 5(5):266
cannon-cup fungi, 6(3):52
capeweed, 7(1-4):23, 9(1-2):7
Caralluma dummeri, 13(5-6):84
Cardaria chalepensis, 9(3-4):83
Cardaria draba, 9(3-4):84, 13(1-2):22,24
Cardaria pubescens, 9(3-4):85
Carduus acanthoides, 9(1-2):8, 12(3-4):56,61, 13(3-4):42
Carduus nutans, 8(3-4):77, 9(1-2):9, 11(5-6):85, 13(3-4):43
Caribbean fruit fly, 5(5):274, 6(5):82, 11(1-2):17, 12(3-4):91
Carissa carandas, 5(3):221
carnation, 4(3):70
carob moth, 4(1):20, 6(1):10, 9(5-6):161, 11(5-6):86, 16(1-2):8,9
Carolina horsenettle, 9(3-4):120, 12(1-2):39
carpenter ant, 5(3):229
Carpobrotis edulis, 13(5-6):84
carrion, 7(1-4):13
carrot, 4(2):41
Carthamus baeticus, 9(3-4):86, 12(5-6):134-138
Carthamus lanatus, 9(3-4):87, 12(1-2):33
Carthamus leucocaulos, 9(1-2):10, 12(3-4):56,57
Carya ovata, 5(1):194
Carya spp., 5(6):278
cashew, 4(5):164
Castanea cranata, 5(1):193
Castanea molissima, 5(1):194, 3(4):79
Castanea saliva, 5(1):193
Castanea sp., 5(6):278
Castanopsis spp., 5(1):194
castor bean, 5(3):221
catmint, 4(2):57
catnip, 4(2):57, 5(3):228
cattle, 7(1-4):13
cecidomyiid fly, 6(1):8
Cecidophyopsis ribis, 10(1-2):15-17
celery mosaic virus, 5(3):246
Celtis occidentalis, 8(1-2):9
Centaurea calcitrapa, 9(3-4):88, 12(1-2):34, 13(3-4):44, 13(5-6):93, 14(1-2):18, 14(3-4):51
Centaurea diffusa, 7(1-4):25,29, 8(3-4):77, 9(1-2):11, 11(3-4):54,56, 11(5-6):85, 12(1-2):26, 12(3-4):64, 12(5-6):134,137, 13(3-4):45
Centaurea iberica, 9(1-2):12
Centaurea maculosa, 7(1-4):104, 9(1-2):13, 9(3-4):127, 10(5-6):90,91, 11(5-6):85,90,92, 12(1-2):27, 12(3-4):65, 13(3-4):46, 13(5-6):94, 14(3-4):52, 16(3-6):75-90
Centaurea repens, 9(3-4):89
Centaurea squarrosa, 9(1-2):14
Centaurea sulphurea, 9(3-4):90
Centaurea virgata var. *squarrosa*, 12(3-4):56,59
Cephalosporium lecanii, 12(3-4):82
Ceratitis capitata, 4(1):15, 4(2):51, 4(3):79, 5(1):206, 5(5):256, 5(6):285, 6(1):11, 6(3):30,40, 7(1-4):3, 7(5-6):75, 8(3-4):39, 8(5-6):85,108, 9(1-2):48,66, 9(3-4):130,132, 9(5-6):161, 10(1-2):17, 10(5-6):59,60,73, 11(1-2):4,14, 11(3-4):37,39-43, 11(5-6):71,72-74, 12(3-4):69,70-76, 12(5-6):119,120-2, 13(1-2):3, 13(3-4):55, 13(5-6):79-81, 15(3-4):73, 16(1-2):3-7,11,14, 16(3-6):35
Ceratocystis fagacearum, 11(3-4):36
Ceratophyllum demersum, 7(1-4):24
cereal leaf beetle, 8(5-6):108
cereal thrips, 6(1):11
Cerococcus citri, 5(1):214
Ceroplastes floridensis, 5(1):203, 5(5):267, 11(1-2):10
Ceroplastes rubens, 5(3):230,231, 6(5):66, 9(3-4):14, 11(5-6):82, 12(1-2):12
Ceroplastes sinensis, 10(1-2):12, 13(1-2):15
Chaetanaphothrips orchidii, 15(3-4):73, 15(5-6):156
Chaetocnema repens, 16(3-6):40
Chamaedorea sp., 4(4):111
cheatgrass, 7(1-4):9
chenopodium psyllid, 16(3-6):41
cherry, 5(5):266, 6(3):50
cherry bark tortrix, 9(5-6):170-172, 10(1-2):19-20, 10(3-4):51
cherry tomato, 4(5):154
chestnut bark disease, 5(1):193
chestnut blight, 5(1):193, 5(6):276,278
chestnut tree, 5(3):228
chiku, 5(3):221
Chinese chestnut, 5(1):194
Chinese pistachio trees, 6(1):11
Chinese rose beetle, 4(1):21
Chinese wax scale, 5(3):231, 6(5):66, 10(1-2):12, 13(1-2):15
Chinn, Tammy, 6(5):60
Chinquapin, 5(3):228
Chlorochroa spp., 5(5):264
Chondrilla juncea, 8(1-2):29, 8(5-6):110, 9(1-2):15, 9(3-4):127, 10(5-6):90,92, 11(3-4):54, 12(3-4):56,60, 12(5-6):134,136, 13(1-2):22,23, 13(3-4):47, 13(5-6):95
Chorispora tenella, 9(3-4):91
Chorizococcus brevicruris, 13(5-6):85
Chorizococcus lounsburyi, 9(1-2):47, 13(5-6):85
Chorizococcus sp., 11(5-6):84, 12(5-6):124
christmas wreath, 6(1):11
chrysanthemum white rust, 9(3-4):158, 9(5-6):175-176, 10(5-6):87-88, 11(1-2):18-19, 11(3-4):36, 11(5-6):87, 12(1-2):22, 16(1-2):22
chrysoma blow flies, 7(1-4):13
Chrysoma megacephala, 7(1-4):13
Chrysoma rufifacies, 7(1-4):13, 15(1-2):12
chrysophyllum, 8(3-4):48
Chrysothamnus sp., 4(3):82
Circulifer tenellus, 15(5-6):172-81
Cirsium arvense, 7(1-4):25, 9(3-4):92, 12(1-2):35, 13(3-4):48
Cirsium ochrocentrum, 9(1-2):16, 9(3-4):127, 12(1-2):28, 13(1-2):27
Cirsium undulatum, 9(1-2):17, 9(3-4):129
Citrofortunella mitts, 6(1):11
citrus, 4(3):85, 4(4):110,111, 4(5):166, 5(1):209, 5(3):220,226,231, 6(1):8,9, 8(1-2):15
citrus blight, 14(5-6):64
citrus canker, 4(5):124, 9(34):157, 9(5-6):177, 11(1-2):19
Citrus hystrix, 4(5):124
citrus leaf miner, 12(1-2):15-17
citrus peel miner, 14(1-2): 14, 15(1-2):18
citrus postharvest disease, 12(1-2):22
Citrus sinensis, 8(3-4):48
Citrus spp., 4(2):53
Callistemon sp., 17(1-3):9
Campsis sp., 17(1-3):11
Caribbean fruit fly, 17(1-3):3

Chilocorus bipustulatus, 17(1-3):7
Chinese elm aphid, 17(1-3):10
Chorizococcus sp., 17(1-3):11
citrus thrips, 5(5):267
citrus tristeza virus, 15(5-6):161
citrus variegated chlorosis, 14(5-6):64
citrus whitefly, 4(2):53
cixiid planthopper, 4(5):168, 6(5):65
Cladosporium macrocarpum, 10(1-2):25
Clastoptera arizonana, 9(3-4):137
Clavaspis herculeana, 15(1-2):13
Clavibacter michiganensis, 16(3-6):63
cloudywinged whitefly, 4(2):53, 4(3):85, 4(5):168, 5(3): 226, 16(3-6):56
coast live oak, 6(3):56
Coccinella septempunctata, 10(1-2):12,14, 11(3-4):49, 12(3-4):86
Coccotrypes carpophagus, 6(3):35
Coccotrypes dactyloperda, 6(3):34
Coccotrypes rutshuruensis, 6(3):34
Coccus acutissumus, 15(5-6):160
Coccus viridis, 4(3):96, 5(3):233, 5(5):270, 5(6):292
Cocos plumosa, 14(5-6):72
cockerell scale, 12(1-2):12
coconut scale, 5(6):292, 12(1-2):12
Coelocyba viridilineata, 14(1-2):5
coffee bean weevil, 5(5):267,12(5-6):124, 15(1-2):18, 15(3-4):73-6
collared thrips, 16(3-6):44
Colletotrichum acutatum, 8(5-6):114
common pine shoot beetle, 11(3-4):50-52
composted vegetable matter, 7(1-4):15
Comstock mealybug, 6(1):9, 8(3-4):58
conifer diagnoses, 4(1):8, 4(5):126
cootamundra wattle psyllid, 6(3):36
Coptotermes formosanus, 9(3-4):154, 11(1-2):4,6
Coptotermes sp., 11(1-2):6, 12(3-4):89
Cordyline, 15(5-6):160
corky ringspot, 4(5):118, 3(2):26
corn, 7(1-4):9,15
corn cyst nematode, 11(5-6):88-89
corn earworm, 10(1-2):3
corn flies, 15(5-6):153
com thrips, 8(5-6):85
Coronopus squamatus, 9(3-4):93
Corticium fuciforme, 4(5):122
cotton, 7(1-4):9
cotton boll weevil, 5(3):223, 10(5-6):66-67
cottony maple scale, 12(12):11
Cotula spp.,4(3):70
Cox, Jennifer, 9(1-2):47
Crataegus douglassi, 9(3-4):137
Crataegus mollis, 7(1-4):11, 8(1-2):15
Crataegus monogyna, 7(1-4):11, 8(1-2):15
Crataegus oxyacantha, 7(14):11, 8(1-2):15
creeping mesquite, 9(1-2):34
creosotebush spider mite, 8(34) 39
crepe myrtle, 5(6):290
crown gall, 4(2):39
Cruibulum spp., 6(3):53
Crupina vulgaris,8(5-6):110,9(1-2):18, 10(3-4):54,55, 11(3-4):54,57
crustywaxed whitefly, 4(4):111
Cryptolaemus montrouzieri, 12(3-4):82
Cryptoneossa triangula, 14(3-4):31, 17(1-3):24
Cryptoripersia trichura, 4(3):82
Ctenarytaina eucalypti, 10(12):5, 10(3-4):38,42,43,47, 10(5-6):69,71, 11(1-2):7,8, 11(3-4):48, 11(5-6):81, 13(3-4):65,17(1-3):22
Ctenarytaina longicauda, 6(3):39, 10(1-2):5-7,17(1-3):21
Ctenarytaina sp. *(longicauda)*, 4(5):153
Ctenarytaina sp. *(spatulata)*, 10(3-4):42
Ctenarytaina spatulata, 17(1-3):23
Cuban laurel, 13(3-4):62
cucumber, 4(5):164,171
Cucumis melo var dudaim, 8(5-6):110, 9(1-2):19
Cucumis myriocarpus, 9(3-4):94
Cucurbitaceae, 6(3):34
Cupressus, 13(1-2):12
Cupressus macrocarpa, 6(3):55
curly top virus, 15(5-6):171-80
Cuscuta reflexa, 9(1-2):20
cut flowers, 4(3):96, 5(6):290
cutworm moth, 4(1):21
Cyathus spp., 6(3):52
cycad palm, 6(1):11
cycad poliaspis scale, 12(1-2):12,13
cycad weevil, 6(1):11
cycloconium leaf spot, 4(4):117
Cycloconium oleaginum, 4(4):117
Cydonia oblonga, 7(1-4):11, 8(1-2):15
Cylas formicarius elegantulus, 11(5-6):84, 12(1-2):3-8, 12(3-4):80,92, 15(5-6):158, 16(1-2):9, 16(3-6):40
cymbidium orchid, 4(3):70
Cynara cardunculus, 9(3-4):95, 13(3-4):57, 13(5-6):96, 14(1-2):19
Cynara scolymus, 6(1):22, 13(3-4):57
Cynodon dactylon, 7(1-4):19
Cyperus esculentus, 9(3-4):96
Cyperus rotundus, 9(3-4):97, 14(3-4):53
cytisus psyllid, 14(1-2):3
Cytisus scoparius, 14(1-2):6
Dacus bivittatus, 6(3):31
Dacus correctus, 5(3):219, 6(3):31, 6(5):65, 8(5-6):101
Dacus cucurbitae, 4(4):107, 4(5):165, 5(1):199, 5(5):257, 6(5): 64, 8(1-2):5, 9(3-4):130
Dacus dorsalis, 4(1):15, 4(2):51, 4(4):107, 4(5):153,165, 5(1):200, 5(3):221-22, 5(5):258, 6(1):2,14, 6(3):30, 41, 6(5):65, 7(1-4):6, 7(5-6):76, 8(1-2):4, 8(3-4):42, 9(3-4):130,132, 9(5-6):161
Dacus latifrons, 6(3):41
Dacus pallidus, 6(3):34
Dacus scutellatus, 6(1):3, 6(3):30, 9(5-6):164
Dacus sp., 6(3):34
Dacus tryoni, 4(5):164
Dacus zonatus, 5(3):221, 6(3):31, 9(3-4):130, 9(5-6):162-163
daffodil, 4(2):43
dahlia, 7(1-4):9
Daktulosphaira vitifoliae, 5(1):203, 14(3-4):28, 16(3-6):40
Dalbulus maidis, 11(3-4):48
Dalmatian toadflax, 9(1-2):28, 10(3-4):54, 10(5-6):90,93, 11(1-2):20, 11(5-6):90,93, 12(1-2):30, 13(3-4):51
dandelion, 4(4):112
Danothrips trifasciatus, 15(3-4):73
Dasineura affinis, 11(1-2):6, 12(1-2):11
Dasineura gleditchiae, 5(3):229
Dasineura rhodophaga, 15(3-4):77
date, 6(1):10
Datnoff, L., 5(5):251
Dehli Sands flower-loving fly, 16(1-2):8
Delphacodes molinus, 4(4):114
Delphacodes pseudoseminigra, 11(5-6):81
Dendrobium sp., 4(4):112
desert grape leafhopper, 4(3):89
DeShazer, Darvin, 5(3):243,246, 6(3):52,55
Diachus auratus, 5(5):266
Dialeurodes citri, 14(1-2):7
Dialeurodes citrifolii, 4(2):53, 4(3):85, 4(5):168,5(3): 226,14(1-2):7, 16(3-

6):56
Dialeurodes kirkaldyi, 14(1-2):7
Dialeurodes sp., 14(1-2):7
Diaphania nitidalis, 11(5-6):71,77,86, 16(1-2):15
Diaphorina citri, 17(1-3):18-19
Diaspidiotus liquidambaris, 10(3-4):49
Diaspis sp., 5(1):203
Diastrophus radicum, 10(1-2):14
dichondra, 4(3):70
dichondra flea beetle, 16(3-6):40
Didymellina macrospora, 6(1):23
Dieffenbachia, 15(3-4):70
diffinis scale, 10(5-6):75
diffuse knapweed, 7(1-4):25, 29, 8(3-4):77, 9(1-2):11,69, 11(3-4):54,56, 11(5-6):85, 12(1-2):26, 12(3-4):64, 12(5-6):134,137, 13(3-4):45
Dinurothrips guamensis, 13(12):15
Dioon edule, 12(1-2):12
Diospyros, 8(3-4):48
Diploptera punctata, 12(3-4):89
Diploptera sp., 4(5):172
Ditylenchus dipsaci, 4(1):1, 15(3-4):84
Diuraphis noxia, 5(1):206, 5(5):268, 6(1):12, 6(3):38, 7(1-4):9, 7(5-6):80, 8(1-2):11, 8(3-4):39, 8(5-6):102, 9(1-2):59, 9(3-4):136
Diuraphis tritici, 8(5-6):107
Dodonea sp., 5(3):231
Dodonea viscosa, 12(3-4):80
dodonea whitefly, 5(3):231
dogs, 7(1-4):13
Dolichodorus aquaticus, 13(34):73
Dolichodorus sp., 13(3-4):73
douglas fir mealybug, 13(34):65
downy mildew, 9(3-4):157
Dracaena sp., 4(5):171
Dreissena polymorpha, 12(56):132-133, 13(5-6):89, 14(1-2):13, 15(1-2):18
drippy nut disease, 13(56):99-100
dudaim melon, 8(5-6):110
Dyer's woad, 9(3-4):104, 12(1-2):37, 13(1-2):30, 13(3-4):50
Dynaspidiotus britannicus, 6(1):11
Dyscinetus morator, 12(3-4):89
Dysmicoccus alazon, 5(3):231, 5(6):290, 12(1-2):12, 16(3-6):33
Dysmicoccus bispinosus, 16(3-6):33
Dysmicoccus mackenziei, 5(3):230, 11(5-6):84, 12(56):124, 14(3-4):34, 15(1-2):18
Dysmicoccus pinicolus, 10(34):47
Dysmicoccus texensis, 16(3-6):33
Dysmicoccus vaccinii, 16(3-6):33
Easter lily, 4(4):112
eastern tent caterpillar, 4(1):21
Ecpantheria scribonia, 12(34):89
Ectomyelois ceratoniae, 4(1):20, 9(5-6):161, 16(1-2):8,9
Ectomyelois, 16(1-2):9
Ehrhorn's oak scale, 9(34):137, 11(3-4):48
Eichlin, T.D., 4(4):114
elderberry, 4(4):112
ELISA, 4(3):68, 4(5):124
elisa mealybug, 5(6):292, 13(12):16
Elixothrips brevisetis, 13(1-2):15
Elodea canadensis, 13(3-4):36
Elodea nuttallii, 13(3-4):36
Empoasca fabae, 5(3):230
Empoasca guevarai, 15(1-2):13
Empoasca sp. near guevarai, 15(1-2):5
Empoasca mexana, 5(3):230
Empoasca solana, 5(3):229,230
Enarmonia formosana, 9(56):170-172, 10(1-2):19-20, 10(3-4):51
Encephalartos manikensis , 6(1):11
Endothia parasitica, 5(1):193, 5(6):278,278
entomogenous fungus, 4(2):58
entomology editors note, 6(5):58
Entomophthora planchoniana, 4(2):58
Eotetranychus sexmaculatus, 11(3-4):46
Eotetranychus willamettei, 9(12):48
Epitrimerus pyri, 5(5):226,266
Eriastrum densifolium, 15(5-6):155
Eriobotrya deflexa, 8(1-2):15
Eriococcus azaleae, 5(3):230
Erwinia amylovora, 13(5-6):99100
Erwinia betavascularium, 13(56):100
Erwinia carotovora, 13(5-6)99-100
Erwinia chrysanthemi, 4(3):77
Erwinia herbicola, 12(5-6):139
Erwinia quercina, 13(5-6): 99-100
Erythroneura elegantula, 4(3):89
Erythroneura variabilis, 4(3):89
eucalyptus, 4(4):109, 4(5):153, 6(3):39, 8(3-4):58
Eucalyptus bicostatus, 10(1-2):5
Eucalyptus blakelyi, 17(1-3):7
eucalyptus borer, 4(3):80, 6(1):2, 17(1-3):22
Eucalyptus botryoides, 4(3):81
Eucalyptus bridgesiana, 17(1-3):7
Eucalyptus camaldulensis, 4(3):81, 17(1-3):5,7
Eucalyptus cinerea, 4(3):81
Eucalyptus citriodora, 14(1-2):5, 14(3-4):31
Eucalyptus cladocalyx, 4(3):81
Eucalyptus dealbata, 17(1-3):7
Eucalyptus diversicolor, 4(3):81
eucalyptus gall wasp, 14(1-2):5, 14(3-4):28, 17(1-3):23
Eucalyptus globulus, 4(3):81, 10(1-2):5, 15(1-2):12, 17(1-3):5
Eucalyptus gomphocephala, 4(3):81
Eucalyptus leucoxylon, 10(1-2):5
eucalyptus longhorned borer, 7(5-6):75, 8(1-2):3, 8(3-4):39, 10(1-2):8, 12(3-4):86, 16(1-2):12,19
Eucalyptus macarthuri, 4(3):81
Eucalyptus maideni, 4(3):81
Eucalyptus nitens, 17(1-3):7
Eucalyptus occidentalis, 4(3):81
Eucalyptus paniculata, 4(3):81
eucalyptus psyllid, 4(3):91, 10(3-4):42,47, 13(3-4):65, 17(1-3):21,23
Eucalyptus robusta, 4(3):81
Eucalyptus sideroxylon, 4(3):81
Eucalyptus tereticornis, 17(1-3):7
Eucalyptus viminalis, 4(3):81
Eucarazzia elegans, 4(2):56, 5(3):266,228
eugenia, 8(3-4):48
Eugenia jambos, 5(3):221
Eugenia michelli, 5(3):221
Eugenia myrtifolia, 7(1-4):13
eugenia psyllid, 7(1-4):12, 7(5-6):79, 8(1-2):3,15, 9(1-2):59, 9(3-4):137, 14(1-2):3
Eugenia sp., 17(1-3):9
Eugenia spp., 4(5):164
Eulecanium kunoense, 11(1-2):9, 12(1-2):10, 13(1-2):12, 14(1-2):3, 16(1-2):13-14
Euonymus sp., 4(2):40
euonymus scale, 6(1):10
Euphorbia esula, 9(1-2):21, 12(1-2):29
Euphorbia oblongata, 9(3-4):98, 12(1-2):36
Euphorbia serrata, 9(1-2):22
Eupristina verticillata, 13(3-4):62
Eurasian poplar leaf rust, 11(5-6):87-88
European alder leafminer, 5(3):225
European bark beetle, 8(56):85
European chestnut, 5(1):193
European corn borer, 9(34):140
European dagger nematode, 16(1-2):26
European elm bark beetle, 9(1-2):48
European hornet, 5(5):264, 8(3-4):39
European violet gall midge, 11(1-2):6, 12(1-2):11
Euxesta stigmatias, 15(5-6):153-4

Euxoa sp., 4(1):21
Ewartithrips californicus, 15(5-6):155
Ewartithrips dispar, 15(5-6):155
Ewartithrips ehrhornii, 15(5-6):155
Ewartithrips flavidus, 15(5-6):155
Ewartithrips longirostrum, 15(5-6):155
Ewartithrips salviae, 15(5-6):155
Ewartithrips, 15(5-6):155
Exobasidium vaccini, 4(5):120
exotic fruit fly, 15(3-4):73,17(1-3):4
face fly, 5(6):289
false garlic, 9(3-4):108
false parlatoria scale, 5(6):290
false powder post beetle, 12(5-6):124
fan palm, 4(2):56
farnesiana psyllid, 16(3-6):43
Ferrisia consobrina, 16(1-2):8
Ferrisia malvastra, 16(1-2):8
Ferrisia virgata, 6(1):11, 16(1-2):8
fertile capeweed, 9(1-2):45, 11(1-2):20,22
fescue, 4(5):122, 7(5-6):81
Festuca elatior, 4(3):85
Festuca spp., 4(3):70, 4(5):122
Ficus benjamina, 4(3):96, 5(1):203, 14(3-4):28
ficus leaf gall wasp, 16(3-6):46
Ficus microcarpa, 13(3-4):62
Ficus nitida, 4(2):53, 12(3-4):80
Ficus retusa-nitida, 13(3-4):62
Ficus sp., 17(1-3):9
Ficus spp., 5(5):267
fig, 4(5):154,164
fig psyllid, 6(3):36
fig wasps, 13(3-4):62-64
filth fly, 7(1-4):13
fir, 5(3):227
fire disease, 6(1):23
Florida wax scale, 5(1):203, 11(1-2):10
flower lei, 4(4):112
flower thrips, 4(4):112
Fomes annosus syn., 6(3):55
Foote, L., 4(5):156
Formosan subterranean termite, 9(3-4):154
Formosan termite, 11(1-2):4,6
Fortuner, R., 4(1):2, 5(3):241
Frankliniella hemerocallis, 16(3-6):44
Frankliniella parvula, 12(1-2):20-21
Frankliniella williamsi, 8(5-6):85
Fraxinus, 6(1):10, 8(1-2):15
Fraxinus excelsior, 7(1-4):10, 8(1-2):15
Fraxinus ornus, 7(1-4):10, 8(1-2):15
Fraxinus syriaca, 7(1-4):10, 8(1-2):15
freezing inciting disease, 4(2):42
French, A.M., 4(1):31
French lavender, 4(2):57
Freysuila dugesii, 16(3-6):42
fruit fly, 6(1):14, 10(5-6):59, 11(1-2):17
fruit trees, 5(1):203
fuchsia, 8(3-4):58
fuchsia mite, 4(1):19
fuller rose beetle, 6(5):66
fungus, 5(1):193,196, 10(12):25-26
fusarium basal rot, 4(2):43
Fusarium oxysporum, 5(1):196, 12(1-2):22, 12(3-4):82
Fusarium oxysporum f. narcissi, 4(2):43
fusarium wilt, 12(1-2):22
gainesia leaf spot, 10(1-2):27-29
galea melon, 4(5):170
Galleria mellonella, 17(1-3):20
garbage, 7(1-4):13
garden bagworm, 4(4):114, 5(1):202, 14(3-4):32
garden leafhopper, 5(3):229
Gardenia florida, 13(5-6):87
Gardenia spp., 4(2):53
Gasteromycetes, 5(3):243
Gaura coccinea, 9(3-4):99
Gaura odorata, 9(3-4):100
Gaura sinuata, 9(3-4):101
Genaparlatoria pseudaspidiotus, 11(5-6):86
genista psyllid, 12(3-4):88
Geococcus coffeae, 5(3):233
German yellowjacket, 8(34):39
giant African snail, 11(1-2):1011
giant dodder, 9(1-2):20
giant foxtail, 9(3-4):119
giant knotweed, 9(3-4):114
giant ragweed, 9(3-4):81
giant whitefly, 11(5-6):78-81, 14(5-6):72
Gill, R. J., 4(2):50, 6(5):58, 8(1-2):21
ginger, 5(6):290
ginger flowers, 4(3):96
gladiolus, 4(4):112
glassy-winged sharpshooter, 5(6):290, 11(3-4):50, 13(1-2):8,10-11, 14(3-4):28, 14(5-6):64,66-8
globe artichoke, 13(3-4):57
globe-podded hoarycress, 9(3-4):85
Glycaspis brimblecombei, 17(1-3):7,8,24
glycerol filtration seed assay, 5(5):251
Gnomonia comari, 5(3):246
Godfrey, M., 7(1-4):5
Goheen, Dr. Austin, 5(5):254
golden apple snail, 16(3-6):47-8
golden thistle, 9(1-2):37
Gonipterus scutellatus, 13(1-2):4-7, 14(1-2):3, 15(1-2):12,17(1-3):23
gorse, 9(3-4):125, 12(1-2):40
gracillariid leafminer, 5(3):225
gracillariid moth, 15(1-2):18
grain fields, 6(1):11
grape, 4(3):68,89
grape groundcherry, 9(3-4):111
grape leafhopper, 4(3):89
grape phylloxera, 5(1):191,203, 14(3-4):28, 16(3-6):40
grapefruit, 4(2):53, 4(5):164
grapeleaf skeletonizer, 5(5):266
Graphocephala atropunctata, 14(5-6):64
Graphognathus, 16(3-6):49
Graphognathus leucoloma, 7(1-4):8
grass, 4(4):114
grass aphid, 4(3):85, 16(3-6):49
Grass, C., 4(3):66
grass cyst nematode, 11(1-2):3
grass mealybug, 14(1-2):3
grasshopper, 4(1):21
green needle, 7(1-4):9, 7(5-6):81
green scale, 4(3):96, 5(3):233, 5(5):270, 5(6):292
green shield scale, 4(3):96, 5(3):233, 5(5):270,289,292, 6(3):43, 9(3-4):141, 10(5-6):73, 11(1-2):6-7, 11(3-4):53, 11(5-6):82, 12(3-4):80-85, 12(5-6):119,125, 13(1-2):16, 15(1-2):13
green stink bug, 5(5):262
green wattle psyllid, 11(1-2):7
Greenidea formosana, 17(1-3):9
greens, 4(5):172
grey mold rot, 4(3):74
Gryllodes supplicans, 7(5-6):79
guava, 4(5):166, 6(5):82
guava fruit fly, 5(3):217,219, 6(3):31, 6(5):65, 8(5-6):101, 10(5-6):59, 11(3-4):37,43, 11(5-6):71,75, 12(3-4):69,78, 13(3-4):56, 13(5-6):79,82, 15(3-4):73, 16(3-6):38
gum-tree weevil, 13(1-2):4-7
Gunnell, P., 8(5-6):114
Gymnaspis aechmeae, 11(5-6):84
Gymnosporangium fuscum, 11(3-4):31-33
Gypsophila paniculata, 9(3-4):102
gypsy moth, 4(1):15,20, 4(2):60, 4(3):95, 4(4):108, 5(1):211, 5(3):223,232, 6(5):78, 7(1-4):8, 7(5-6):82, 8(3-4):48,66, 8(5-6):98, 9(3-4):131,134,154, 10(1-2):17, 10(3-4):39, 10(5-6):64,73,79-83, 11(1-2):14, 11(3-4):37,44,49, 11(5-

6):85, 12(3-4):69, 13(3-4):56, 14(3-4):27, 14(5-6):63, 15(3-4):71, 15(5-6):151, 16(3-6):34
hackberry nipplegall maker, 8(1-2):9, 8(5-6):101
Haines, Debbie, 6(5):67
hainesia leaf spot, 10(5-6):89
Hainesia lythri, 10(1-2):27-29, 10(5-6):89
hairy maggot blowfly, 7(1-4):13, 15(1-2):12
hairy root, 4(2):41
Halimondendron halodendron, 9(1-2):23
Hall, Dennis H., 4(1):29
halogeton, 9(1-2):24, 13(3-4):49
Halogeton glomeratus, 9(1-2):24, 13(3-4):49
harmel, 7(1-4):22, 9(1-2):32, 9(3-4):128
Harmonia axyridis, 16(1-2):8, 17(1-3):7
Harper scale, 15(1-2):12
Harrisiana brillians, 5(5):226
Hauck, Amy, 6(5):67
Hawaii, 9(3-4):151-154, 10(1-2):20-21
Hawaiian flower thrips, 15(5-6):158
Hawaiian thrips, 4(4):112
Hawthorne, Ronald M., 4(2):50
heart-podded hoarycress, 9(3-4):84, 13(1-2):22,24
heartleaf nightshade, 9(1-2):38
Hebe buxifolia, 5(1):198
Hebe spp., 5(1):196
Heilipus lauri, 7(5-6):83, 8(1-2):16
Helianthus ciliaris, 9(1-2):25
Helicoverpa zea, 10(1-2):3
Helicella caperata, 15(1-2):9
Helicella conspurcata, 15(1-2):9
Helicella elegans, 15(1-2):9
Helicella striata, 15(1-2):9
Helicella maritima, 4(4):109,111, 5(3):229, 5(5):261
hemerocallis thrips, 16(3-6):44
Hemiberlesia diffinis, 10(5-6):75
Henley, Susan, 6(5):67
Henry, Don, 5(6):287
herculeana scale, 15(1-2):13
Heterobasidion annosum, 6(3):55
Heterobostrychus hamatipennis, 8(3-4):59
Heterodera mani, 11(1-2):3
Heterodera sp., 9(1-2):68
Heterodera zeae, 11(5-6):88-89
Heteromeles arbutifolia, 8(1-2):15
Heteropogon contortus, 9(1-2):26
Heteropsylla cubana, 5(3):225, 11(1-2):9, 11(3-4):49, 15(5-6):158
Heteropsylla flexuosa, 15(1-2):5, 15(1-2):13, 16(3-6):43
Heteropsylla texana, 16(3-6):43
Heterorhabditis nematodes, 16(1-2):9
Heterosporium iridis, 6(1):23
Heterotermes sp., 11(1-2):6
Himalayan knotweed, 9(3-4):113
Hirschmanniella belli, 4(1):7
Hirschmanniella oryzue, 4(1):2
holly scale, 6(1):11
Holothrips, 7(1-4):18
Homalodisca coagulata, 5(6):290, 11(3-4):50, 13(1-2):8,10-11, 14(3-4):28, 14(5-6):64,66-68
Homalodisca lacerta, 4(5):166, 13(1-2):10-11, 14(5-6):64,66
Homalodisca sp., 5(6):290
Homalodisca triquetra, 13(1-2):10
Homotoma ficus, 6(3):36
honey locust pod gall midge, 5(3):229
hop bush, 5(3):231
Hordeum murinum, 5(1):206
Hordeum vulgare, 4(3):85, 5(1):206
Howardia biclavis, 5(3):233, 5(5):267,270, 5(6):292, 6(3):42, 10(5-6):73
Hubbard squash, 4(4):112
Hydatothrips (Neohydatothrips) pseudoannulipes, 16(1-2):8
Hydatothrips samayunkur, 14(3-4):28-30, 16(1-2):8
hydrangea, 4(4):112
hydrilla, 7(1-4):23,28, 8(3-4):73, 9(1-2):46, 27, 9(3-4):127, 12(3-4):56,58, 12(5-6):134,135, 13(1-2):28, 13(3-4):35-6,38, 13(5-6):97, 14(1-2):17
Hydrilla verticillata, 7(1-4):23,28, 8(3-4):73, 9(1-2):27,46, 9(3-4):127, 12(3-4):56,58, 12(5-6):134,135, 13(1-2):28, 13(3-4):35-6,38, 13(5-6):97, 14(1-2):17
Iberian starthistle, 9(1-2):12
ice plant, 4(3):70,128, 12(3-4):66, 13(3-4):52
ice plant scale, 4(5):168, 5(6):280
Idioderma sp., 7(1-4):16, 15(1-2):12
Illyrian thistle, 9(1-2):30, 11(3-4):54
Imperata brevifolia, 9(3-4):103
imported bagworm, 4(4):114
imported fire ant, 10(1-2):22, 11(1-2):17
imported mealybug, 5(3):230
Index to Bulletin of CDFA, 4(4):114
Index of Phanerogamic Parasites, 15(3-4):97-140
Indian house cricket, 7(5-6):79
Inopus rubriceps, 5(5):266, 5(6):289, 6(1):9, 6(3):39, 10(5-6):67, 11(5-6):81
iris, 4(2):43, 4(3):74
iris leafspot, 6(1):23
Isatis tinctoria, 9(3-4):104, 12(1-2):37, 13(1-2):30, 13(3-4):50
Ixodes pacificus, 8(5-6):85, 9(1-2):48
Ixora spp., 13(5-6):87
Japananus hyalinus, 5(1):202, 12(3-4):86-87
Japanese beetle, 4(1):21, 4(3):79, 4(4):108, 5(3):223, 232,233, 5(5):269, 6(3):32, 42, 6(5):80, 7(1-4):17, 8(3-4):59,60, 8(5-6):108, 9(3-4):131,140, 10(3-4):41,50, 11(3-4):37, 11(5-6):71, 12(3-4):80,92, 13(3-4):56, 14(3-4):27, 15(3-4):72, 15(5-6):151, 16(3-6):34
Japanese chestnut, 5(1):193
Japanese knotweed, 9(3-4):112, 9(5-6):178, 13(3-4):53
Japanese maple leafhopper, 5(1):201
jasmine whitefly, 13(1-2):16, 15(5-6):156, 16(3-6):56
Jasminum nitidum, 15(5-6):156
Jasminum sambac, 15(5-6):156
Johnson grass, 7(1-4):9
jointed goatgrass, 8(3-4):77, 9(3-4):75, 11(1-2):20,23, 13(3-4):37,39
jonquils, 4(2):43
Josephiella sp., 16(3-6):46
jujube, 5(3):221
juniper gelechiid moth, 13(12):12,13-14
Juniperus, 13(1-2):12
kalanchoe, 4(2):39
kangaroothorn, 9(3-4):74
Kapiioho, D., 4(3):66
karanda, 5(3):221
Karnal bunt of wheat, 4(3):66, 5(5):251, 14(5-6):57-9, 15(1-2):20-21, 15(3-4):93
katydid, 4(1):21
khapra beetle, 9(5-6):178
Kilifia acuminata, 4(3):96
Koa-Haole, 5(3):225
Kontaxis, Demetrios, 6(1):22
Kosta, Kathleen L., 5(3):246, 6(1):23, 6(3):57
Kuno scale, 5(3):226, 11(1-2):9, 12(1-2):10, 13(1-2):12, 14(1-2):3, 16(1-2):13-14

Kuwana oak scale, 5(3):228 9(1-2):62, 10(1-2):12
Kuwanaspis hikosani, 11(1-2):10
Kuwania quercus, 5(3):228, 9(1-2):62, 10(1-2):12
Laetisaria faciformis, 4(5):122
Lai, C.M., 4(2):39, 4(3):77, 4(5):122
lanceleaved nightshade, 9(3-4):123
Lantana camara, 13(5-6):84
lantana lace bug, 13(5-6):84
Laurus nobilis, 15(1-2):13, 15(5-6):158
Lavandula dentata, 4(2):57
Lavatera assurgentiflora, 10(1-2):14
lavatera psyllid, 10(1-2):14
lead tree, 5(3):225
leaf blotch, 5(3):246
leafhopper, 4(3):68, 5(6):290, 6(1):8, 14(1-2):4, 15(1-2):13, 15(1-2):5
leafminer, 5(5):267
leafy spurge, 9(1-2):21, 12(1-2):29
legumes, 4(5):172
Leis sp., 12(3-4):82
lemon, 4(5):154,164, 5(5):266
lemon gum psyllid, 14(3-4):31,17(1-3):24
lens-podded hoarycress, 9(3-4):83
Lepidium latifolium, 9(3-4):105, 12(1-2):38
Lepidosaphes beckii, 5(5):270, 6(1):9
Leptoglossus occidentalis, 8(5-6):85, 9(1-2):48
lesser snow scale, 4(3):96, 5(3):233, 5(5):270, 5(6):290, 292, 9(3-4):141, 12(3-4):88
lettuce, 4(3):77
leucaena psyllid, 5(3):225, 11(1-2):9, 11(3-4):49, 15(5-6):158
Leucaena spp., 11(1-2):9, 15(5-6):158
Leucoma salicis, 14(3-4):27
lilac, 4(2):58
lily, 4(3):70
lilybulb mealybug, 9(1-2):47, 11(1-2):10
lima, 7(1-4):9
Limothrips cerealeum, 6(1):11
Linaria dalmatica, 9(1-2):28, 10(3-4):54, 10(5-6):90,93, 11(1-2):20, 11(5-6):90,93
Linaria genistifolia spp. *dalmatica*, 11(5-6):90,93, 12(1-2):30, 13(3-4):51
Liothrips floridensis, 11(3-4):44-45
Liothrips sp., 11(1-2):10
liquidambar scale, 10(3-4):49
Liriomyza sp., 5(5):267
live oak, 5(6):278
Lolium spp., 4(3):70, 4(5):122
longhorned beetle, 16(3-6):56
Lopholeucaspis cockerelli, 12(1-2):12
Lophostemon confertus, 6(3):39
loquat, 4(5):164
Lorryia formosa, 5(5):266
lubber grasshopper, 5(5):267
luna moth, 11(5-6):86
Lupinus arboreus, 15(3-4):84
Lymantria dispar, 7(1-4):8, 7(5-6):82, 8(3-4):48,66, 8(5-6):98, 9(3-4):131,134,154, 10(1-2):17, 10(3-4):39,41, 10(5-6):64,73,79-83, 11(1-2):14, 11(3-4):37,44,49, 11(5-6):85, 12(3-4):69, 13(3-4):56, 14(3-4):27, 14(5-6):63, 15(3-4):71, 15(5-6):151, 16(3-6):34
Lymantria japonica, 10(1-2):17
Lythrum salicaria, 9(3-4):106,
Macruocampa marthesia, 11(3-4):53
Madeira mealybug, 6(3):40
madrone, 6(3):56
madrone psyllid, 10(1-2):14
madrone tree, 10(1-2):14
magnolia white scale, 4(3):96, 5(1):203, 5(3):230,233, 5(5):270, 5(6):290,292, 6(3):42, 6(5):66, 9(3-4):141, 10(5-6):73, 11(1-2):10, 11(3-4):49, 11(5-6):82, 12(1-2):14, 12(3-4):88, 12(5-6):124-125, 13(1-2):16, 15(1-2):13, 16(3-6):56
maize billbug, 11(5-6):86
Malacosoma americanum, 4(1):21
Malacosoma sp., 4(2):60, 5(1):211, 5(3):232, 5(5):269
Maladera castanea, 4(1):21
Malaysian fruit fly, 6(3):41
Malus domestica, 8(1-2):15
Malus spp., 5(1):209
mandarin orange, 4(5):164
Mangifera indica, 5(3):221, 8(3-4):48
mango, 4(4):108, 4(5):164, 5(3):220, 5(5):267, 5(6):291, 6(1):14, 8(3-4):48
mango flower beetle, 4(1):21
mango shield scale, 9(1-2):47
manilkara, 8(3-4):48
manzanita, 13(1-2):20-21
manzanita leafgall aphid, 16(1-2):8
maple, red, 5(1):194
marigold thrips, 14(3-4):28, 16(1-2):8
maritime snail, 4(4):111, 5(3):229, 5(5):261
Marmara salictella, 14(1-2):14
Marmara sp., 15(1-2):18, 17(1-3):11
Mason's eye worm, 4(5):171
Matsumoto, T. Roy, 4(2):49
Matsumoto, T. T., 4(3):66, 5(5):251
Matsuo, W., 4(5):134
Mayetiola violicola, 6(1):8
Mayhew, Paula, 6(3):5
Maytenus sp., 6(1):10
mayweed, 8(1-2):29
McCarty, J., 5(5):251
McKenzie mealybug, 5(3):230, 11(5-6):84, 12(5-6):124, 14(3-4):34, 15(1-2):18
McKenzie pine mealybug, 10(3-4):47
meadow fescue, 4(3):85
meadow sage, 9(1-2):36
mealybug, 4(2):60, 5(3):233, 14(5-6):72, 16(1-2):15, 16(1-2):8, 16(3-6):56,17(1-3):11
Mediterranean fruit fly, 4(1):15, 4(2):51, 4(3):79, 5(1):206, 5(5):256, 5(6):285, 6(1):11, 6(3):30,40, 6(5):67,72, 7(1-4):3, 7(5-6):75, 8(3-4):39, 8(5-6):85,106,108, 9(1-2):48, 9(3-4):130,132, 9(5-6):161, 10(1-2):17, 10(3-4):38, 10(5-6):59,60,73, 11(1-2):4,14, 11(3-4):37,39-43, 11(5-6):71,72-74, 12(3-4):69,70-76, 12(5-6):119,120-122, 13(1-2):3, 13(3-4):55, 13(5-6):79,80-81, 15(3-4):73, 16(1-2):3-7,11,14, 16(3-6):35
Mediterranean mint aphid, 5(3):228
Mediterranean sage, 9(3-4):116
Megaselia scalaris, 15(5-6):153
Megaselia seticauda, 15(5-6):153
Megastigmus pistaciae, 6(3):36
Melaleuca quinquenervia, 11(1-2):21
Melaleuca sp., 17(1-3):9
Melampsora larici-populina, 11(5-6):87-88
Melanaphis sp., 16(3-6):49
Melanoplus sp., 4(1):21
Melipona spp., 4(5):156
Melittiphis alvearius, 6(5):62
Meloidogyne chitwoodi, 4(1):1
Meloidogyne sp., 4(1):1, 9(1-2):68
melon fruit fly, 4(4):107, 4(5):165, 5(1):199, 5(5):257, 6(5):64, 8(1-2):5, 9(3-4):130, 13(1-2):3, 16(3-6):38
melon thrips, 10(5-6):75,77
melon weevil, 4(5):170
memorial, 4(2):49,50
memorial fund, 4(1):29
Menochilus sexmaculatus, 12(3-4):82
Mentha apicata, 4(2):57
Mespilus sp., 7(1-4):11, 8(1-2):15

Metaphycus stanleyi, 12(3-4):82
Metopolophium festucae, 4(3):85
Metrosideros sp., 17(1-3):9
Metrosideros tomentosa, 8(1-2):16
Mexican fan palm, 7(1-4):16
Mexican fruit fly, 4(2):52, 4(4):108, 5(1):201, 5(5):257,274, 5(6):286, 6(5):76, 7(14):7, 7(5-6):77, 8(1-2):4, 8(5-6):96, 9(1-2):48,66, 9(3-4):131,135, 9(5-6):164, 10(3-4):38, 10(5-6):59,63, 11(1-2):4,5, 11(3-4):37,38, 11(5-6):71,75, 12(1-2):3, 12(3-4):69,79,91, 12(5-6):119,123, 13(1-2):3, 13(3-4):56, 13(5-6):79,82, 14(1-2):3, 14(3-4):25, 14(5-6):62, 15(1-2):3, 15(3-4):72, 16(1-2):9, 16(3-6):38, 17(1-3):3
Mexican leafroller, 12(3-4):89
Mexican mealybug, 6(3):40
Microterys kotinskyi, 12(3-4):82
Microzamia spp., 12(1-2):12
milk thistle, 13(3-4):57
Milviscutulus mangiferae, 9(1-2):47
mining scale, 5(3):233, 5(5):270, 5(6):292, 6(3):42, 10(5-6):73
mint aphid, 4(2):56, 5(5):266
Minutaleurodes minuta, 13(5-6):87-88
minute whitefly, 13(5-6):87-88
Miscanthicoccus miscanthi, 8(1-2):17, 9(3-4):140,10(1-2):4, 14(1-2):3
miscanthus mealybug, 9(3-4):140
Miscanthus sinensis, 8(1-2):17
mite, 5(5):266, 15(3-4):79
mock orange shrubs, 6(1):11
molinus plant hopper, 4(4):114
Monochellus carribeanae, *15(3-4):79*
Monochellus erythrinae, *15(3-4):79*
Montaque, Michael, 5(1):196
Monterey cypress, 6(3):55
Morganella longispina, 11(5-6):86
Muhlenbergia schreberi, 9(3-4):107
mulberry, 4(5):164, 6(1):9,11, 8(3-4):58
multicolored Asian lady beetle, 16(1-2):8
Musca autumnalis, 5(6):289
Muscoid flies, 5(3):243
musk thistle, 8(3-4):77, 9(1-2):9,69, 11(5-6):85, 13(3-4):43
mustard, 6(1):4
Mutsu apples, 4(5):168
Mycetococcus ehrhorni, 9(3-4):137, 11(3-4):48
Mycocalia spp., 6(3):53
Mycosphaerella tassiana, 10(1-2):25-26
Mymarid wasp, 13(1-2):5
Myndus crudus, 9(1-2):48
Nantucket pine tip moth, 5(5):266, 5(6):289, 6(1):10
narcissus, 4(1):1
Narcissus spp., 4(2):43
natal plum, 5(3):221
native fruit fly, 6(1):9
nectarine, 4(5):154,164
Nematode Pest Rating Lists, 12(1-2):41-46
nematode slide collection, 5(3):241
Neoclytus conjunctus, 4(3):80
Neohydatothrips inversus, 16(3-6):60
Neohydatothrips variabilis, 14(3-4):28-9
Neopinnaspis harperi, 15(1-2):12
Neophyllura arbuti, 10(1-2):14
Neovossia indica syn., 4(3):66
Nepeta cataria, 4(2):57
Nepeta mussinii, 4(2):57
Nephthytis sp., 4(3):77
nesting whitefly, 10(1-2):3,8,11, 11(5-6):82, 12(3-4):86,88, 12(5-6):125, 13(1-2):12, 16, 15(5-6):158
Nesua sp., 17(1-3):9
New Pest Advisory Group, 5(1):208
New Zealand flax, 10(1-2):3
Nezara viridula, 4(5):172, 5(5):249,261,6(1):4,9, 6(3):35, 6(5):66, 8(1-2):3
Nicotiana glauca, 4(2):39
Nicotiana tobacum, 4(2):39
Nidula spp., 6(3):53
Nidularia spp., 6(3):53
Nidulariales, 6(3):52
nimblewill, 9(3-4):107
Nipaecoccus sp., 5(3):231, 9(3-4):141, 14(5-6):72, 16(1-2):15, 16(3-6):56, 17(1-3):11
Nothoscordum inodorum, 9(3-4):108
NPAG, 5(1):208
Nubilis spp., 5(3):221
Nymphaea mexicana, 9(3-4):109
oak phylloxera, 13(3-4):65
oak wilt, 11(3-4):36
oats, 5(1):206, 7(1-4):9
oblong spurge, 9(3-4):98, 12(1-2):36
Ocimum basilicum, 4(2):57
Odontanaphothrips tricolor, 15(5-6):156
Odontofroggatia galili, 13(3-4):62
Odontofroggatia ishii, 13(3-4):62,64
oedema, 8(1-2):33
Oidiopsis taurica, 6(1):22
Oidium sp., 6(3):57
okra, 7(1-4):9
Olea chrysophylla, 7(1-4):10, 8(1-2):15
Olea europaea, 4(2):58, 7(1-4):10, 8(1-2):15
oleander gall, 12(1-2):23-25
oleander scorch, 14(5-6):60-1
Oliarus hesperius, 4(5):168,169
Oligonychus perseae, 14(1-2):3, 14(3-4):27, 15(1-2):13, 11(3-4):46-47, 13(1-2):3
Oligonychus peruvianus, 11(3-4):46-47
Oligonychus punicae, 11(3-4):46
olive, 4(2):37,58, 4(4):110,114, 117
olive knot, 12(1-2):23-25
Oncometopia orbona, 4(5):166
Oncometopia undata syn., 4(5):166
Onopordum acanthium, 7(1-4):25,31, 9(1-2):29, 11(5-6):85, 13(1-2):29, 13(3-4):54, 13(5-6):98, 14(1-2):20
Onopordum illyricum, 9(1-2):30, 11(3-4):54
Onopordum tauricum, 9(1-2):31
onopordum thistle, 9(1-2):69
Opgenorth, D.C., 4(3):68, 4(5):124, 5(1):193, 5(6):278, 8(5-6):114, 13(5-6):99-100
Opogona sacchari, 9(5-6):170, 10(1-2):20
orange, 4(4):111, 8(3-4):48
Orchelium sp., 4(1):21
orchid, 4(4):112, 5(5):267, 15(1-2):5
orchid aphid, 5(3):230
orchid scale, 5(3):231
orchid thrips, 11(1-2):10
Orchidophilus sp., 5(1):211, 12(3-4):89
Orcus spp., 12(3-4):82
Orgyria sp., 10(5-6):64
Oriental beetle, 4(1):21, 5(3):233, 5(5):270
Oriental fruit fly, 4(1):15, 4(2):51, 4(4):107, 4(5):153, 165, 5(1):200, 5(3):222, 5(5):258, 6(1):2,14, 6(3):30,31,41, 6(5):65,74 7(1-4):6, 7(5-6):76, 8(1-2):4, 8(3-4):42, 8(5-6):93, 9(3-4):130, 132, 9(5-6):161, 10(3-4):38, 39,40, 10(5-6):59, 61-62, 73,11(1-2):4,5, 11(3-4):37,38, 11(5-6):71,75, 12(1-2):3, 12(3-4):69,77-78, 12(5-6):119,123,132, 13(1-2):3, 13(3-4):55, 13(5-6):79,82, 14(5-6):62, 15(1-2):3, 15(3-4):72, 15(5-6):151, 16(3-6):36-7
ornamental pear, 7(5-6):80
ornamental pest, 6(3):42
ORSTOM, 4(1):3
Orthezia tillandsiae, 12(3-4):88
Oryza sativa, 4(1):2, 9(5-6):174
Ostrinia nubilalis, 9(3-4):140

Otitid fly, 5(3):229
Otiorhynchus rugosostriatus, 16(1-2):8
Oulema melanopus, 8(5-6):108
ovate goatgrass, 9(3-4):76
Oxford ragweed, 9(3-4):118
Oxydema longula, 12(3-4):88
Pachypsylla celtidismamma, 8(1-2):9, 8(5-6):101
Pachypsylla celtidisvesicula, 8(1-2) 9
Pacific beetle cockroach, 12(3-4):89
paddy melon, 9(3-4):94
Pagiocerus frontalis, 16(3-6):56
palm mealybug, 12(5-6):125, 16(3-6):56
palm whitefly, 11(5-6):82
Palmicultor palmarum, 12(5-6):125, 16(3-6):56
panicled onion, 9(3-4):79
Panicum antidotale, 9(3-4):110
Pantoea agglomerans, 12(5-6):139
Pantomorus cervinus, 6(5):66
papache, 15(1-2):18
papaya, 4(5):164, 5(6):291, 6(1):14, 6(3):34
papaya fruit fly, 5(6):291, 6(1):14, 14(1-2):13
paper wasp, 16(3-6):44
Paphiopedilum, 9(3-4):142
paphiopedilum orchids, 5(3):231
Papp, M.R., 4(4):114
Paraleyrodes minei, 10(1-2):3,8-11, 11(5-6):78,82, 12(3-4):86,88, 12(5-6):125, 13(1-2):12,16, 15(5-6):158
Paraleyrodes naranjae, 4(4):111
Parlatoria proteus, 16(1-2):15
Paraleyrodes sp., 4(4):111, 5(6):289, 8(1-2):14, 8(5-6):106
Paraphlepsius irroratus, 9(1-2):48
parasitic plant, 6(5):60
parasitic wasp, 4(3):89
Paratrechina longicornis, 6(1):2
Paratrechina sp., 5(3):233, 5(6):292
Paratrioza lavaterae, 10(1-2):14
Paravespula germanica, 8(3-4):39
Parlatoria pittospori, 6(1):11, 11(5-6):82, 12(3-4):88
Parlatoria proteus, 5(1):203, 11(5-6):82
Parlatoria sp., 5(3):231, 5(5):267, 9(3-4):141
Parlatoria ziziphi, 5(1):209, 11(5-6):86
partial bunt, 4(3):66
passiflora, 8(3-4):48
Passiflora sp., 4(5):164
passion flower, 4(5):164
Pauly, B., 4(1):8, 4(2):46, 4(5):126
peach, 4(5):154,164, 5(3):220, 8(3-4):48
peach fruit fly, 4(3):31, 9(3-4):130, 9(5-6):162, 12(3-4):69,79, 13(3-4):56, 16(3-6):38
peacock spot disease, 4(4):117
pear psylla, 5(3):219
pear rust mite, 5(5):266
pear-juniper rust, 11(3-4):31-33
Pectinophora gossypiella, 5(5):261, 5(6):286, 6(3):33, 9(5-6):170, 10(5-6):64-66, 11(5-6):69-70,71, 12(3-4):80, 13(5-6):79,83, 14(5-6):63, 16(3-6):34
Peganum harmala, 7(1-4):22, 9(1-2):32, 9(3-4):128
Penicillium ulaiense, 12(1-2):22
Penrose, R.L., 4(3):80
Penusa dohrnii, 5(3):225
Peperomia dahlstedii, 6(3):57
pepper maggot, 4(1):21
pepper tree psyllid, 4(4):114, 4(5):153,168, 5(1):201, 5(3):229, 5(5):266, 6(3):36, 7(1-4):3,13
perennial peppercress, 9(3-4):105, 12(1-2):38
perennial sowthistle, 9(1-2):40, 11(5-6):90,91
periwinkle wilt, 14(5-6):64
Persea americana, 4(4):111, 8(3-4):48
persea mite, 15(1-2):13
Persian catmint, 4(2):57
persimmon, 4(5):164
pest ratings, bacteria, 4(1):31
Pezizella oenotherae, 10(1-2):27
phanerogamic parasites, 15(1-2):23-64
Phaseolus vulgaris, 15(1-2):5
Pheidole fervens, 14(5-6):69-71, 15(1-2):3
Pheidole floridana, 14(5-6):69-71
Pheidole megacephala, 5(3):233, 5(5):270, 5(6):292
Pheidole meorens, 15(1-2):3, 14(5-6):69-71
Pheidole teneriffana, 14(5-6):69
Phenacoccus emansor, 11(1-2):10
Phenacoccus gossypii, 6(3):40
Phenacoccus madeirensis, 6(3):40
Phenacoccus trionymoides, 13(5-6):86
Philephedra tuberculosa, 11(1-2):10, 12(3-4):88
Phillyrea latifolia, 7(1-4):10, 8(1-2):15
Phillyrea media, 7(1-4):10, 8(1-2):15
Phoenix roebelenii, 5(1):203, 9(3-4):141, 15(1-2):18
phony peach disease, 4(5):166, 5(6):290, 14(5-6):64
Phoracantha recurva, 16(1-2):12,19, 17(1-3):23
Phoracantha semipunctata, 4(3):80, 6(1):2, 7(5-6):75,8(1-2):3, 8(3-4):39, 10(1-2):8, 12(3-4):86, 16(1-2):12,19,17(1-3):22
phormium mealybug, 10(1-2)3
Phormium tenax, 10(1-2):3
Phrasterothrips conducans, 7(1-4):18
Phrasterothrips omer-cooperi, 7(1-4):18
Phrasterothrips sp., 11(5-6):82-84
Phyllocoptes bougainvillaea, 16(1-2):12
Phyllocnistus citrella, 12(1-2):15-17
Phyllophaga sp., 4(1):21, 5(3):233, 5(5):270
Phylloxera sp., 5(1):191, 13(3-4):65
Phymatotrichum omnivorum, 14(3-4):41-43
phymatotrichum root rot, 14(3-4):41-43
Physalis virginiana var. *sonorae*, 9(1-2):33
Physalis viscosa, 9(3-4):111
pickleworm, 11(5-6):71,77,86, 16(1-2):15
Pierce's disease, 4(3):68, 4(5):166, 5(6):290, 14(1-2):4, 14(5-6):64
Pietersen, Ray, 5(6):278
pine, 5(6):289, 8(1-2):17
pineapple, 4(5):171
pineapple guava, 4(5):154
pink bollworm, 5(5):261, 5(6):286, 6(3):33, 9(5-6):170, 10(5-6):64-66, 11(5-6):69-70,71, 12(3-4):80, 13(5-6):79,83, 14(5-6):63, 15(5-6):166-70, 16(3-6):34, 16(3-6):39
Pinnaspis buxi, 4(3):96
Pinnaspis strachani, 4(3):96, 5(3):233, 5(5):270, 5(6):290, 292, 9(3-4):141, 12(3-4):88
Pintalia delicata, 6(5):65
pistachio seed chalcid, 6(3):36
pittosporum diaspidid, 6(1):11
pittosporum pit scale, 6(1):11, 11(5-6):81
pittosporum scale, 11(5-6):82, 12(3-4):88
Plagiognathus chrysanthemi, 16(1-2):8
plains bluegrass, 7(1-4):9
Planococcus ficus, 13(1-2):8,9
planthopper, 11(5-6):81
Plasmopara viticola, 9(3-4):157
plum, 4(5):164
plum leaf scald, 14(5-6):64
plumeless thistle, 9(1-2):8, 12(3-4):56,60, 13(3-4):42

Plumeria sp., 5(5):267, 10(3-4):53
plumose scale, 11(5-6):86
Poa spp., 4(3):70, 4(5):122
Podosesia syringae, 4(2):37,58, 4(4):114
pole bean, 4(4):112
Poliaspis cycadis, 12(1-2):12,13
Polistes dominulus, 16(3-6):44
Polygonum cuspidatum, 9(3-4):112, 13(3-4):53
Polygonum polystachyum, 9(3-4):113
Polygonum sachalinense, 9(3-4):114
Polygyridae, 15(1-2):11
Pomacea bridgesii, 16(3-6):47
Pomacea canaliculata, 16(3-6):47-8
Pomacea lineata, 16(3-6):47
pomegranates, 7(5-6):80
ponderosa pine tip moth, 9(1-2):47
Popillia japonica, 4(3):79, 4(4):108, 5(3):223,232, 5(5):269, 6(3):32,42, 7(1-4):17, 8(3-4):60, 8(5-6):108, 9(3-4):131,140, 9(5-6):178, 10(3-4):41,50, 11(3-4):37, 11(5-6):71, 12(3-4):80,92, 13(3-4):56, 14(3-4):27, 15(3-4):72, 15(5-6):151, 16(3-6):34
post oak, 5(1):194
potato, 4(1):1, 4(5):171
potato (common) scab, 13(3-4):71-72
potato leafhopper, 5(3):230
potato virus Y, necrotic strain, 12(1-2):22-23
potato virus Y, (PVY-N), 10(3-4):53
poultry, 4(5):171
powdery mildew, 6(3):57,10(3-4):53
Pozzi, John, 6(5):67
Prescott, M., 5(5):251
privet, 4(2):58
Prodiplosis violicola, 11(1-2):6
Prorhinotermes sp., 11(1-2):6
Prosapia sp., 11(5-6):86
Proscirtothrips zeae, 15(5-6):156
Prosopis strombulifera, 9(1-2):34
Prosopoanaphothrips reticulatus, 15(5-6):156
Protaetia fusca, 4(1):21
Protopulvinaria mangiferae, 9(1-2):47
Protopulvinaria pyriformis, 5(5):270, 11(5-6):84, 12(3-4):86, 14(3-4):28, 15(1-2):13
Prunus cerasifera, 5(1):202
Prunus persica, 5(3):221, 7(1-4):11, 8(1-2):15, 8(3-4):48, 15(1-2):18
Pseudaulacaspis cockerelli, 4(3):96, 5(1):203, 5(3):230, 233, 5(5):267,270, 5(6):290, 292, 6(3):42, 6(5):66, 9(3-4):141, 10(5-6):73, 11(1-2):10, 11(3-4):49, 11(5-6):82, 12(1-2):14, 12(3-4):88, 12(5-6):124-125, 13(1-2):16, 15(1-2):13, 16(3-6):56
Pseudaulacaspis pentagona, 11(5-6):86
Pseudobryobia drummondi, 8(3-4):39
Pseudococcus agavis, 4(2):60
Pseudococcus affinis, 15(3-4):69
Pseudococcus citriculus, 15(3-4):69-70
Pseudococcus comstocki, 6(1):9, 8(3-4):58, 16(3-6):34
Pseudococcus cryptus, 15(3-4):69-70
Pseudococcus dysmicus, 15(3-4):70, 79
Pseudococcus elisae, 5(5):267, 13(1-2):16, 15(3-4):69-70
Pseudococcus importatus, 5(3):230, 5(5):267
Pseudococcus jackbeardsley, 15(3-4):70
Pseudococcus maritimus, 15(3-4):70
Pseudococcus nakaharai, 15(3-4):70, 79
Pseudococcus odermatti, 16(3-6):34
Pseudococcus sorghiellus, 15(3-4):70
Pseudococcus viburni, 15(3-4):69
Pseudococcus sp., 4(2):60
Pseudomonas pseudoalcaligenes subsp. citrulli, 14(3-4):44
Pseudomonas syringae, 4(2):42, 12(1-2):25
Pseudomonas syringae subsp. citrulli, 14(3-4):44
Pseudoanidia trilobitiformis, 11(1-2):10
Pseudoparlatoria parlatorioides, 5(6):290
Pseudoparlatoria sp., 5(3):230
Psidium guajava, 4(4):111, 5(3):221, 15(5-6):160
Psidium sp., 17(1-3):9
Psydrothrips sp., 10(5-6):75,78
Psylla alni, 5(3):219
Psylla pyricola syn., 5(3):219
Psylla uncatoides, 5(3):226
Psyllia uncata syn., 6(1):7
psyllid, 4(3):91, 10(5-6):69, 15(1-2):5,13
Psyllidae, 8(1-2):21
Psyllopsis fraxinicola, 6(1):9, 9(3-4):137, 10(1-2):12, 12(1-2):11, 14(3-4):28, 15(1-2):12
Puccinia horiana, 9(3-4):158, 9(5-6):175-176, 10(5-6):87-88, 11(1-2):18-19, 11(3-4):36, 11(5-6):87, 12(1-2):22
Pulvinaria innumerabilis, 12(1-2):11
Pulvinaria mesembryanthemi, 4(5):168, 5(6):290, 13(5-6):84
Pulvinaria psidii, 4(3):96, 5(3):233, 5(5):267,270, 5(6):289,292, 6(3):43, 9(34):141, 10(5-6):73, 11(1-2):6-7, 11(3-4):53, 11(5-6):82, 12(3-4):80-85, 12(5-6):119,125, 13(1-2):16, 15(1-2):13
Pulvinaria urbicola, 12(1-2):8-9, 17(1-3):11
puna grass, 7(1-4):23,27, 9(1-2):42
Punica granatum, 7(1-4):10, 8(1-2):15
purple loosestrife, 9(3-4):106, 128, 12(3-4):66, 13(3-4):52
purple mustard, 9(3-4):91
purple nutsedge, 9(3-4):97, 14(3-4):53
purple sage, 4(2):57
purple scale, 5(5):270, 6(1):9
purple starthistle, 9(3-4):88, 12(1-2):34, 13(3-4):44, 13(5-6)93, 14(1-2):18, 14(3-4):51
Puto profusus, 13(3-4):65
Pycnoscelus sp., 4(5):172
Pycnoscelus surinamensis, 7(1-4):15, 4(5):171
Pyricularia grisea, 15(3-4):84
pyriform scale, 5(5):270, 11(5-6):84, 12(3-4):86, 14(3-4):28, 15(1-2):13
Pyrus callerana, 7(1-4):11, 8(1-2):15
Pyrus communis, 7(1-4):11, 8(1-2):15
Pyrus kawakamii, 8(1-2):15
Pyrus malus, 7(1-4):11
Pyrus sativa, 7(1-4):11, 8(1-2):15
quackgrass, 9(3-4):78
Queensland fruit fly, 4(5):164, 10(3-4):39
Quercus agrifolia, 13(5-6):99, 15(5-6):155
Quercus douglasii, 10(1-2):12
Quercus ilex, 15(1-2):12
Quercus lobata, 5(1):194
Quercus montana, 5(1):194
Quercus sp., 5(3):228
Quercus stellata, 5(1):194
Quercus virginiana, 5(6):278
Quercus wislizenii, 13(5-6):99
quince, 4(5):164
radish, 4(4):112
Radopholus similis, 9(1-2):68, 13(3-4):73, 15(3-4):84, 16(3-6):66
Radopholus sp., 13(3-4):73
ragweed, 7(1-4):9
ragweed stunt, 14(5-6):64
Randia echinocarpa, 15(1-2):18
raspberry root gall wasp, 10(1-2):14
raywood ash, 6(1):9, 15(1-2):12
red alder, 6(3):55
red banded whitefly, 10(1-2):12,

11(1-2):7, 11(3-4):49
red horse chestnut, 9(3-4):137
red imported fire ant, 5(5):267, 6(3):50, 7(1-4):16, 8(1-2):18, 8(3-4):65,68, 8(5-6):109, 10(3-4):50, 11(1-2):10, 11(5-6):85, 16(3-6):41,50-5
red maple, 5(1):194
red scale, 5(5):270
red thread, 4(5):122
red wax scale, 5(3):230, 9(3-4):141, 11(5-6):82, 12(1-2):12
redbanded clearwing moth, 4(2) 59
redgum lerp psyllid, 17(1-3):7,8,24
reniform nematode, 16(3-6):71
rescue grass, 5(1):206
Reticulitermes sp., 11(1-2):6
Retithrips syriacus, 13(3-4):65-67
Rhagoletis completa, 8(5-6):108
Rhagoletis fausta, 5(5):260, 9(5-6):166, 14(5-6):62, 15(3-4):73
Rhagoletis indifferens, 5(3):222, 5(5):260,265, 6(3):31,50, 9(3-4):131, 9(5-6):166
Rhagoletis pomonella, 5(3):222, 5(5):258,265,6(3):31,35,7(5-6):78, 8(3-4):46, 8(5-6):109, 9(3-4):131,133,136, 9(5-6):166,178, 10(5-6):64, 11(5-6):71,76, 14(3-4):27, 15(5-6):152
Rhamnus alaternus, 7(1-4):11, 8(1-2):15
Rhaphiomidas terminatus abdominalis, 16(1-2):8
Rhipiphorothrips pulchellus, 7(5-6):100
Rhizoecus arabicus, 15(1-2):5
Rhodomyrtus sp., 17(1-3):9
Rhopalosiphum padi, 8(3-4):39
Rhus sp., 5(6):278
Rhus typhina, 5(1):194
Rhyacionia bushnelli, 8(5-6):85, 9(1-2):48
Rhyacionia frustrana, 5(5):266, 5(6):289, 6(1):10
Rhyacionia zozana, 9(1-2):47
Rhytidoporus indentatus, 12(3-4):89
Ribes nevadense, 4(2):56
rice blast disease, 15(3-4):91
rice nematode, 4(1):2
Ricinus communis, 5(3):221
robust bamboo pit scale, 9(1-2):47
Romalea microptera, 5(5):267
root inducing plasmid, 4(2):41
root mealybug, 15(1-2):5
rootknot of tomato, 4(1):1
Rorippa austriaca, 9(3-4):115
Rosa spp., 4(4):112
rose, 4(5):171
rose apple, 5(3):221
Rosmarinus officinalis, 4(2):57
rosemary, 4(2):57
rose midge, 15(3-4):77
Rotylenchulus reniformis, 16(3-6):71
rough comfrey, 9(3-4):124
rough jointvetch, 9(3-4):126, 12(3-4):63
rough strawberry root weevil, 16(1-2):8
Rubus sp., 10(1-2):14
Ruscus sp., 6(1):11
Russian knapweed, 9(3-4):89, 13(3-4):40
Russian salt tree, 9(1-2):23
Russian wheat aphid, 5(1):206, 5(5):268, 6(1):12, 6(3):38, 7(1-4):9, 7(5-6):80, 8(1-2):11, 8(3-4):39, 8(5-6):102, 9(1-2):59, 9(3-4):136, 11(1-2):15-16
ryegrass, 4(5):122, 7(1-4):9
sage, 4(2):57
Saint Augustine grass, 4(4):114
saline wildrye, 7(1-4):9, 7(5-6):81
Salsola vermiculata, 9(1-2):35
salt-marsh caterpillar, 5(5):274
Salvia aethiopis, 9(3-4):116
Salvia apiana, 4(2):57
Salvia canariensis, 4(2):57
Salvia chionopeplica, 4(2):57
Salvia clevelandii, 4(2):57
Salvia leucophylla, 4(2):57
Salvia mellifera, 4(2):57
Salvia mohavensis, 4(2):57
Salvia munzii, 4(2):57
Salvia officinalis, 4(2):57
Salvia pachyphylla, 4(2):57
Salvia splendens, 4(2):57
Salvia vaseyi, 4(2):57
Salvia virgata, 9(1-2):36
Sambucus sp., 4(4):112
Sanctanus sonorus, 6(1):8
sandal wood, 5(3):221
sansevieria scale, 5(1):203, 11(5-6):82, 16(1-2):15
Santalum album, 5(3):221
sapodilla, 5(3):221, 6(3):40
satintail, 9(3-4):103
satin moth, 14(3-4):27
Sawyer, Susan M., 5(3):245
scale, 5(1):203,214
scarab beetle, 4(1):21, 5(3):233, 5(5):270, 12(3-4):89
scarlet gaura, 9(3-4):99
scarlet sage, 4(2):57
scented gaura, 9(3-4):100
Schefflera arboricola, 13(1-2):15, 14(1-2):7
Schefflera sp., 5(3):230
Schinus montanus, 7(1-4):3
Schinus molle, 4(2):41, 7(1-4):3
Schinus terebinthifolia, 6(5):66, 7(1-4):3, 12(3-4):80,81
Scirtothrips citri, 5(5):267
Scirtothrips dorsalis, 7(5-6):100
Scirtothrips perseae, 16(3-6):33
Scirtothrips sp. (perseae), 15(1-2):4, 15(3-4):79, 15(5-6):158, 16(1-2):13
Sclerosococcus tillandsiae, 11(5-6):84
Sclerotium rolfsii, 4(3):70
Sclerotium oryzae, 16(3-6):65
Scolymus hispanicus, 9(1-2):37
Scolytus multistriatus, 8(5-6):85, 9(1-2):48
scotch thistle, 7(1-4):25,31, 9(1-2):29, 11(5-6):85, 13(1-2):29, 13(3-4):54, 13(5-6):98, 14(1-2):20
Seeno, Terry N., 7(1-4):19
Seioptera vibrans, 5(3):229
Senecio jacobaea, 9(3-4):117
Senecio squalidus, 9(3-4):118
septoria leaf spot, 5(1):197
Septoria spp., 5(1):197
serrate spurge, 9(1-2):22
Setaria faberi, 9(3-4):119
sevenspotted lady beetle, 10(1-2):12, 11(3-4):49, 12(3-4):86
shade tree diagnoses, 4(1):8, 4(5):126
shagbark hickory, 5(1):194
sharpshooter, 4(5):166, 5(6):290
sheep, 7(1-4):13
Showers, D.W., 4 (3):66, 5(5):253
Sicilian starthistle, 9(3-4):90
silverleaf whitefly, 13(1-2):3, 16(1-2):22
Silybum marianum, 13(3-4):57
Sinoxylon conigerum, 12(5-6):124
Siphanta acuta, 8(3-4):58, 9(1-2):59, 10(5-6):67, 11(3-4):48, 11(5-6):71
Siphoninus phillyreae, 7(1-4):10, 7(5-6):75,80, 8(1-2):14, 8(5-6):104,107, 9(1-2):59, 9(3-4):136,154, 9(5-6):166-169, 10(1-2):12, 10(5-6):68-69,70, 14(1-2):8
sitka spruce, 6(3):55
Sitobion luteum, 5(3):230
six spotted mite, 11(3-4):46
skeletonweed, 8(1-2):29, 8(5-6):110, 9(1-2):15, 9(3-4):127, 10(5-6):90,92, 11(3-4):54, 12(3-4):56,60, 12(5-6):134,136, 13(1-

2):22,23, 13(3-4):47, 13(5-6):95
slender soft scale, 15(5-6):160
small hive beetle, 17(1-3):20
smooth distaff thistle, 9(3-4):86, 12(5-6):134,138
smooth ground cherry, 9(1-2):33
smut fungus, 4(3):66, 5(5):251
snail, 5(3):233, 5(5):270, 15(1-2):8,11,13
snail pest, 11(5-6):86
snake gourd, 6(1):4
soft scale, 12(3-4):88
Solanum cardiophyllum, 9(1-2):38
Solanum carolinense, 9(3-4):120, 12(1-2):39
Solanum dimidiatum, 9(1-2):39
Solanum elaeagnifolium, 9(3-4):122, 12(3-4):67
Solanum lanceolatum, 9(3-4):123
Solanum margnatum, 9(3-4):121
Solenopsis geminata, 16(3-6):52
Solenopsis invicta, 5(5):267, 7(1-4):16, 8(1-2):18, 8(3-4):65, 8(5-6):109, 10(3-4):50, 11(1-2):10, 11(5-6):85, 16(3-6):41,50-55
Solenopsis richteri, 16(3-6):52
Solenopsis xyloni, 16(3-6):52
Solenopsis spp., 10(1-2):22, 11(1-2):17
Sollya heterophylla, 15(5-6):152
Sonchus arvensis, 9(1-2):40, 11(5-6):90,91
Sophonia rufofascia, 15(1-2):4,6-7,13,18, 15(5-6):152,160, 16(1-2):10, 16(3-6):56
sorghum, 6(1):8, 7(1-4):9
sorghum stunt mosaic, 11(1-2):18
sorghum stunt mosaic rhabdovirus, 11(3-4):34-35
Sorrell, Mary, 4(2):42
sour cherry, 4(5):164, 5(3):222
sour orange, 4(5):164
soursop, 6(1):14
southern blight disease, 4(3):70
southern chinch bug, 4(4):114
southern garden leafhopper, 5(3):229
southern green stink bug, 4(5):172, 5(5):249,261, 6(1):4,9, 6(3):35, 6(5):66, 8(1-2):3
soybeans, 5(5):262, 7(1-4):9
Spanish moss orthezia, 12(3-4):88
spearmint, 4(2):57
Spectrobates ceratoniae, 4(1):20, 6(1):10, 11(5-6):86
Sphaerobolis spp., 6(3):52
Sphaerophysa salsula, 9(1-2):41
Sphenophorus maidis, 11(5-6):86
Sphenophorus phoeniciensis, 7(1-4):19
Sphenophorus venatus vestitus, 7(1-4):19
spike muhly, 7(1-4):9, 7(5-6):81
Spilococcus cactearum, 9(1-2):47
Spilococcus leucopogi, 9(1-2):47
Spilococcus mamillariae, 9(1-2):47
spiraling whitefly, 4(4):111, 5(3):233, 5(5):270, 5(6):292
spittlebug, 11(5-6):86
spotted knapweed, 7(1-4):104, 9(1-2):13,69, 9(3-4):127, 10(5-6):90,91, 11(5-6):85, 90,92, 12(1-2):27, 12(3-4):65, 13(3-4):46, 13(5-6):94, 14(3-4):52, 16(3-6):75-90
squarrose knapweed, 9(1-2):14, 12(3-4):56,59
squirreltail, 7(1-4):9
staghorn sumac, 5(1):194
Stegophylla sp., 13(3-4):65
Steinernema nematodes, 16(1-2):9
stem end rot, 5(3):246
Stenolechia bathrodyas, 13(1-2):12,13-14
Stenolobium stans, 4(4):111
sterile fly release data, 6(5):67
sting nematode, 11(1-2):3
stinkhorn fungi, 5(3):243
Stipa brachychaeta, 7(1-4) 23,27, 9(1-2):42
Stirellus sp., 6(1):8
stoppers, 4(5):164
stored grain products, 7(1-4):15
strawberry, 4(1):1, 7(1-4):9
strawberry anthracnose, 8(5-6):114
strawberry leaf blotch, 5(3):246
Strelitzia sp., *15(1-2):13*
Streptomyces scabies, 13(3-4):71-72
Striga asiatica, 6(5):60
Striga gesnerioides, 6(5):61
striped cucumber beetle, 11(5-6):86
striped mealybug, 6(1):11
striped pine scale, 9(1-2):47
sugar beets, 5(3):230
sugar beet leafhopper, 15(5-6):172-81
sunburst locust, 5(3):229
sunflower, 4(2):39,56, 5(5):267
Surinam cherry, 5(3):221
Surinam cockroach, 4(5):171, 7(1-4):15
sweet corn, 4(2):56
sweet orange, 4(5):164
sweet potato weevil, 11(5-6):84, 12(1-2):3-8, 12(3-4):80,92, 15(5-6):158, 16(1-2):9, 16(3-6):40
sweet potato whitefly, 10(3-4):33-37, 10(5-6):68,72, 11(3-4):48, 12(5-6):124, 13(1-2):3
swinecress, 9(3-4):93
Sycophila sp., 13(3-4):62
Symphylum asperum, 9(3-4):124
Synanthedon culiciformis, 4(2):59
Syncarpia spp., 4(3):81
Syngonium sp. syn., 4(3):77
Syrian beancaper, 9(1-2):44
Syrian rue, 7(1-4):23
Syzygium paniculatum, 7(1-4):13
Taeniothrips, 15(5-6):155
Tagetes minuta, 9(1-2):43
Tamalia coweni, 16(1-2):8
tanglehead, 9(1-2):26
tansy ragwort, 9(3-4):117
Tapinoma melanocephalum, 10(5-6):68
Taraxacum officinale, 4(4):112
taurian thistle, 9(1-2):31
Teleonemia scrupulosa, 13(5-6):84
Tenebrio obscurus, 7(1-4):14
tenebrionid beetle, 7(1-4):14
tent caterpillar, 4(2):60, 5(1):211, 5(3):232, 5(5):269
Tephritid fruit flies, 6(1):3, 6(3):30,34
Teratoclytus plavilstskikovi, 6(1):11
Terellia fuscicornis, 13(3-4):57-61, 14(1-2):3, 15(3-4):71
termite, 12(3-4):89
Tetraleurodes sp., 10(1-2):12, 11(1-2):7, 11(3-4):49
Thailand citrus tree, 8(5-6):109
Thamnotettix zelleri, 14(1-2):4
Theba pisana, 4(4):108, 5(3):229, 5(5):261, 6(1):6, 6(3):32, 9(3-4):131, 10(1-2):4
Thompson, Brad, 6(3):55
thrips, 10(5-6):75,78, 13(1-2):15, 14(1-2):6-7, 15(1-2):4, 15(3-4):73,79, 15(5-6):158
Thrips hawaiiensis, 4(4):112, 10(1-2):17, 15(5-6):158
Thrips palmi, 10(1-2):17-18, 10(5-6):75,77, 14(3-4):28
thyme, 4(2):57
Thymus vulgaris, 4(2):57
ti leaves, 4(3):96
Tidwell, T.E., 4(2):43, 4(3):74, 4(4):117, 8(1-2):33
Tillandsia, 14(3-4):34, 15(5-6):155
Tillandsia chiapensis, 5(3):230
tillandsia mealybug, 11(5-6):84, 12(5-6):124
tillandsia pit scale, 11(5-6):84
Tillandsia sp., 5(1):203, 5(3):230, 5(6):290
tillandsia thrips, 7(1-4):18, 11(5-6):82-84

Tilletia indica, 4(3):66, 14(5-6):57-9, 15(1-2):20-21
timothy hay, 5(6):292
Tinocallis ulmifolli, 17(1-3):10
Tinocallis ulmiparvifoliae, 17(1-3):10
tobacco, 4(2):39
tobacco mosaic virus, 4(5):118
tomato, 4(1):1, 4(2):39, 4(5):118,154,164, 6(3):34,35
tomato powdery mildew, 6(1):22
tomato yellow leaf curl virus, 16(1-2):22
Tomicus piniperda, 11(3-4):50-52, 12(3-4):89
torpedo bug, 8(3-4):58, 9(1-2):59, 10(5-6):67, 11(3-4):48
Torrey's nightshade, 9(1-2):39
Toumeyella liriodendri, 6(1):4, 10(1-2):5, 10(5-6):67
Toumeyella pini, 9(1-2):47
Toxoptera aurantii, 11(1-2):12-14, , 15(5-6):161-2
Toxoptera citricida, 11(1-2):11-14, 12(3-4):90, 15(5-6):160-2, 16(1-2):15
Toxotrypana curvicauda, 5(6):291, 6(1):14, 13(3-4):55, 14(1-2):13
tracheal mite, 6(1):4, 6(3):33
Trachycarpus fortunei, 14(5-6):72
Trachymela sloanei, 17(1-3):4,5-6,24
Trachymela tincticollis, 17(1-3):5
Tranes sp., 6(1):11
treehopper, 15(1-2):12
tree tobacco, 4(2):39
trefoil plant bug, 16(1-2):8
Trialeurodes abutilonea, 11(5-6):81
Trichoferus sp., 16(3-6):56
Trichosanthes cucumeroides, 6(1):4
trichura mealybug, 4(3):82
Trigona spp., 4(5):156
trilobe scale, 11(1-2):10
Trionymus diminutus, 10(1-2):3
Trioza chenopodii, 16(3-6):41
Trioza erytreae, 17(1-3):18
Trioza eugeniae, 7(1-4):12, 7(5-6):79, 8(1-2):3,15, 9(1-2):59, 9(3-4):137, 14(1-2):3
Trioza gallifex, 7(1-4):3
Tristania, 15(5-6):160,17(1-3):9
Tristania conferta, 4(5):153, 6(3):39, 10(1-2):5,6
tristania psyllid, 4(5):153, 6(3):39, 17(1-3):21
triticale, 7(1-4):9
Triticum aestivam, 5(1):206
Trogoderma granarium, 9(5-6):178
tropical palm scale, 12(3-4):88
Trypeta augustigena, 6(1):9
Tryphactothrips brevisetis, 13(1-2):15
tulip, 4(2):43, 4(3):70
tuliptree scale, 6(1):4, 10(1-2):5, 10(5-6):67
tumor inducing plasmid, 4(2):39
tupperware fruit fly, 5(5):274
turf, 4(3):70, 4(5):122, 5(6):289
tussock moth, 10(5-6):64
two spotted leafhopper, 15(1-2):4,6-7,13,18, 15(5-6):152,160, 16(1-2):10, 16(3-6):56
type specimens, 5(3):242
Ulex europaeus, 9(3-4):125,12(1-2):40
Ulmus minor, 17(1-3):10
*Ulmus parvifolia, 17(*1-3):10
Unaspis euonymi, 6(1):10
Unaspis yanonensis, 12(1-2):21
unidentified tephritid fly, 6(3):34
Unruh, T.M., 4(3):70
Unshu orange, 5(1):214
urban soft scale, 12(1-2):8-9,17(1-3):11
Ustilago esculenta, 9(5-6):174
Valencia orange, 4(5):168
valley oak, 5(1):194
vanda orchid scale, 11(5-6):86
variegated grape leafhopper, 4(3):89
Varroa jacobsoni, 6(3):37, 6(5):63,83, 7(5-6):84, 8(1-2):5, 8(3-4):55, 8(5-6):100, 9(1-2):58, 9(3-4):131, 9(5-6):165, 10(1-2):4, 10(5-6):67, 12(1-2):3
varroa mite, 6(3):37, 6(5):63, 83, 7(5-6):84, 8(1-2):5, 8(3-4):55, 8(5-6):100, 9(1-2):58, 9(3-4):131, 9(5-6):165, 10(1-2):4, 10(5-6):67, 12(1-2):3
vegetable, 4(5):172
verticillium wilt, 5(3):246
Vespula germanica, 5(5):264, 8(3-4):39
vine mealybug, 13(1-2):8,9
vining peperomia, 6(3):57
violet gall midge, 6(1):8
violet leaves, 6(1):8
Virginia creeper, 5(5):266
virus disease diagnoses, 4(2):46, 4(5):134
virus rating list, 4(5):138
Vitis, 15(5-6):155
Vitis californica, 9(3-4):157
Vitus rupestris, 5(1):203
Vitis sp., 4(3):68
Vitus vinifera, 5(1):203, 9(3-4):157
Vryburgia amaryllidis, 9(1-2):47, 13(5-6):85
Vryburgia brevicruris, 13(5-6):85
Vryburgia trionymoides, 13(5-6):84-85
Walker, Pat, 6(5):67
Walkerella microcarpae, 13(3-4):62
wall barley, 5(1):206
walnut husk fly, 8(5-6):108
Washingtonia robusta, 7(1-4):16, 15(1-2):12
Washingtonia sp., 15(1-2):12
watermelon, 4(2):56
watermelon fruit blotch, 14(3-4):44-5
Waters, Virginia, 6(3):55
wavyleaf gaura, 9(3-4):101
wavyleaf thistle, 9(1-2):17, 9(3-4):129
waxflower wasp, 10(3-4):38,42
weevil, 12(3-4):88, 16(3-6):49
West Indian fruit fly, 5(6):291, 6(1):14, 8(3-4):46, 8(5-6):101, 11(3-4):37,43, 12(3-4):69,79
western blacklegged tick, 8(5-6):85, 9(1-2):48
western cherry fruit fly, 5(3):222, 5(5):260,265, 6(3):31,50, 9(3-4):131, 9(5-6):166
western conifer-seed bug, 8(5-6):85, 9(1-2):48
western pine tip moth, 8(5-6):85, 9(1-2):48
western wheat aphid, 8(5-6):107
wheat, 4(3):66, 5(1):206, 5(5):251, 6(1):12, 7(1-4):9,15
wheatgrass, 5(1):206, 7(1-4):9, 7(5-6):81
white apple leafhopper, 4(5):168
white garden snail, 5(3):229, 5(5):261, 6(1):6, 6(3):32, 9(3-4):131, 10(1-2):4
white horsenettle, 9(3-4):122, 12(3-4):67
White J.B., 4(2):39, 4(3):70, 4(5):122, 5(6):278, 8(5-6):114
white margined nightshade, 9(3-4):121
white marked tussock moth, 5(1):211
white peach scale, 11(5-6):86
white sage, 4(2):57
white snail, 4(4):108
white tip of rice nematode, 16(3-6):65
whitefly, 4(4):111, 5(6):289, 8(1-2):14, 10(5-6):73,74
whitefringed beetle, 7(1-4):8
whitestem distaff thistle, 9(1-2):10, 12(3-4):56,57
wild garlic, 9(3-4):80, 11(1-2):20,24, 11(3-4):54,55
wild marigold, 9(1-2):43
wild rice smut, 9(5-6):174
Willamette spider mite, 9(1-2):48

Williams, Douglas J., 9(1-2):47
wisteria gall, 12(5-6):139-140
witchweed, 6(5):60
woolly oak aphid, 13(3-4):65
woolly whitefly, 4(2):53, 6(1):8, 6(3):36, 11(5-6):81, 13(1-2):16
wooly distaff thistle, 9(3-4):87, 12(1-2):33
wormleaf salsola, 9(1-2):35
Xanthomonas camp. pv. *vitians*, 4(3):77
Xanthomonas campestris, 13(1-2):20
Xanthomonas campestris citri, 4(5):124
Xanthomonas campestris pv. *citri*, 9(3-4):157, 9(5-6):177, 11(1-2):19
Xerothrips dissimilis, 15(5-6):155
Xerotrichia conspurcata, 15(1-2):8,13
Xiphinema americanum, 16(1-2):25
Xiphinema diversicaudatum, 16(1-2):25-26
Xiphinema index, 16(1-2):25-6
Xiphinema sp., 9(1-2):68, 13(3-4):73, 16(1-2):25
Xyella fastidiosa, 14(5-6):60,64,67
Xyella-type bacteria, 14(5-6):64
Xylosandrus crassiusculus, 13(5 6):85
Xylotrechus nauticus, 4(3):80
yellow nutsedge, 9(3-4):96
yellowspine thistle, 9(1-2):16, 9(3-4):127, 12(1-2):28, 13(1-2):27
Yponomeuta malinellus, 5(1):208
yucca, 10(1-2):25
Zabrotes subfasciatus, 6(5):66
Zachrysia provisoria, 11(5-6):86
zebra mussel, 12(5-6):132-133, 13(5-6):89, 14(1-2):13, 15(1-2):18
Zizania latifolia, 9(5-6):174
Zizyphus spina-christi, 7(1-4):11, 8(1-2):15
Zizyphus spp., 5(3):221
Zonosemata electa, 4(1):21
Zophobas atratus, 7(1-4):14
Zophobas morio, 7(1-4):14
Zophobas rugiceps, 7(1-4):14
zoysia grass, 7(1-4):19
Zoysia matrella, 7(1-4):19
Zygophyllum fabago var. *brachycarpum*, 9(1-2):44
Zythia fragariae, 5(3):246