

*Platypedia areolata* (Uhler)



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**THE CICADAS OF CALIFORNIA**

Homoptera: Cicadidae

BY

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# THE CICADAS OF CALIFORNIA

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John N. Simons

Approximately one hundred and fifty-three species of cicadas in seventeen genera have been described from the United States. Of these, sixty-five species in eight genera are known to occur in California. Since the works of Van Duzee (1915) and Davis (1919, 1920), no extensive keys to any of the genera have been published. This study presents not only a contemporary picture of the taxonomic status of this group but also attempts to further a renewed interest in the study of the family.

Unfortunately, only general information is available on the life histories of the California species of cicadas. Of the few for which brood years have been noted, the time required to complete the life cycle would seem to be from two to five years. The females lay their sausage-shaped eggs in slits made by a sharp ovipositor and in packets of from eight to fifteen per slit. The author has found the incubation period for the eggs of *Okanagana vanduzeei* Distant to be about 90 days. Other species have been reported to have much shorter incubation periods. After hatching, the tiny nymphs drop to the ground and burrow into the soil where they begin to feed on roots. The forelegs of the nymphs are developed into large clawlike appendages which are used in tunneling during their long subterranean life. In early to late spring, depending on the species, the mature nymphs crawl to the surface of the ground, climb some vertical object, and transform into the adult form. Where large populations of a species occur, their cast skins may be found in great profusion, clinging to rocks, stems of plants, or to any other vertical objects which the nymphs had climbed.

The males produce sounds by means of the timbals or tympana which are situated at the base of the abdomen. Strong muscles attached to these organs produce a vibration which causes the high-pitched buzzing or chattering noises associated with these insects. In the genus *Platypedia* the tympana are so reduced that they no longer function as sounding organs. The characteristic clicking noises made by many species of this genus are caused by rubbing the wings together. The various songs are often characteristic for particular species and serve as mating calls to the females. The females oviposit following their courtship, and the short-lived adult forms soon die.

Although not much in the way of specific information is known about the host-plant relationships of the California cicadas, it is apparent that a large number and variety of plants are used as oviposition sites. *Tibicinoides mercedita* (Davis) and *Okanagana triangulata* Davis are seemingly restricted to grasses. Others, such as *Cacama crepitans* Van Duzee and *Okanagodes gracilis* Davis have been recorded on certain desert shrubs such as sage. Many species are apparently arboreal. Examples of this group are *Okanagana bella* Davis, *O. vandykei* Van Duzee, and *Platypedia minor* Uhler. *Okanagana vanduzeei* Distant, which is found over the entire area west of the Rockies, has been observed to oviposit in a variety of plants including goldenrod, sage, *Baccharis*, and *Pinus* spp. Three other species of *Okanagana*, *O. rubrovenosa* Davis, *O. arctostaphylae* Van Duzee, and *O. opacipennis* Davis, have been recorded only from manzanita. Peculiarly these species all closely approximate the dull red color of their host.

Because of the scarcity of records, the distributions of many species of California cicadas are only vaguely known. It is apparent, however, that several genera including *Cacama*, *Diceropracta*, and *Okanagodes* are restricted to the area south of the Tehachapi Mountains. Although several species of *Okanagana* and *Platypedia* occur in this area also, most of these forms are more northerly in distribution. The genus *Tibicinoides* is found primarily in the western part of the state, extending as far north as Lake County and reaching southward into Lower California. Although table 1 indicates that several counties have had no species recorded from them, it is almost certain that no county in the state is without some representative of the family.

Only occasionally have there been reports in California of injury to economic plants by cicadas. This damage has been restricted to the girdling of small branches and twigs of trees from oviposition punctures. *Platypedia minor* Uhler and *P. areolata* (Uhler) have been implicated in Northern California.

	<i>Cacama californica</i>	<i>Cacama crepitans</i>	<i>Cacama valvata</i>	<i>Clidophleps blaisdelli</i>	<i>Clidophleps distanti</i>	<i>Clidophleps tenuis</i>	<i>Clidophleps vagans</i>	<i>Clidophleps wrighii</i>	<i>Diceropracta apache</i>	<i>Neoplatypedia ampliata</i>	<i>Neoplatypedia constricta</i>	<i>Okanagana albusiis</i>	<i>Okanagana annulata</i>	<i>Okanagana arboraria</i>	<i>Okanagana arctostaphylae</i>	<i>Okanagana aurora</i>	<i>Okanagana bella</i>	<i>Okanagana canescens</i>	<i>Okanagana cruentifera</i>	<i>Okanagana davisi</i>	<i>Okanagana ferrugomaculata</i>	<i>Okanagana gibbera</i>	<i>Okanagana magnifica</i>	<i>Okanagana mariposa</i>	<i>Okanagana napa</i>	<i>Okanagana nigritridis</i>	<i>Okanagana nigrodorsata</i>	<i>Okanagana occidentalis</i>	<i>Okanagana opacipennis</i>	<i>Okanagana oregona</i>	<i>Okanagana ornata</i>	<i>Okanagana pallidula</i>	<i>Okanagana rimosa</i>	<i>Okanagana rubrovenosa</i>	<i>Okanagana simulata</i>			
Alameda										X	X						X	X																				
Alpine																	X																					
Amador																											X											
Butte					X										X		X						X													X		
Calaveras																																			X			
Colusa																																						
Contra Costa											X													X										X				
Del Norte																																						
El Dorado																																						
Fresno																	X	X		X						X								X				
Glenn																																						
Humboldt																	X	X		X			X													X		
Imperial								X																														
Inyo		X															X	X																				
Kern																X	X		X								X											
Kings											X																											
Lake																																						
Lassen												X					X	X						X													X	
Los Angeles	X	X		X			X																X		X													
Madera																																						
Marin																																						
Mariposa																		X																			X	
Mendocino																																						X
Merced																																					X	
Modoc																																						X
Mono																	X	X																			X	
Monterey										X							X	X		X			X														X	
Napa											X																										X	
Nevada																	X																				X	
Orange	X			X			•			•																											X	
Placer					X																																	X
Plumas																																						X
Riverside					X			X																														X
Sacramento																																						
San Benito					X																																	
San Bernardino						X	X	•		X							X		•				X		X		•									X	X	
San Diego	X	X		X	X	X		X																														•
San Francisco																																						
San Joaquin					X																																	X
San Luis Obispo																																						
San Mateo										X																												
Santa Barbara																																						
Santa Clara											X																											
Santa Cruz																																						
Shasta					X						•						X																					X
Sierra																																						
Siskiyou																	X																					X
Solano									X																													
Sonoma																		X																				X
Stanislaus																																						X
Sutter																																						X
Tehama																																						
Trinity																																						
Tulare					X												X		X				X	X		X									X			
Tuolumne																																						
Ventura	•						•										X			X																X	X	
Yolo					X																																	X
Yuba																																						

Table I County Records of California Cicadas

<i>Okanagana sperata</i>	<i>Okanagana striatipes</i>	<i>Okanagana triangulata</i>	<i>Okanagana tristis</i>	<i>Okanagana ucinata</i>	<i>Okanagana utahensis</i>	<i>Okanagana vanduzeei</i>	<i>Okanagana vandykei</i>	<i>Okanagana venusta</i>	<i>Okanagana villosa</i>	<i>Okanagana wymorei</i>	<i>Okanagodes gracilis</i>	<i>Platypectia aperta</i>	<i>Platypectia areolata</i>	<i>Platypectia barbata</i>	<i>Platypectia bernardoensis</i>	<i>Platypectia falcata</i>	<i>Platypectia laticapitata</i>	<i>Platypectia mariposa</i>	<i>Platypectia middlekauffi</i>	<i>Platypectia minor</i>	<i>Platypectia mohavensis</i>	<i>P. putnami keddensis</i>	<i>P. putnami occidentalis</i>	<i>P. putnami putnami</i>	<i>Platypectia rufipes</i>	<i>Platypectia scotti</i>	<i>Platypectia similis</i>	<i>Platypectia sylvesteri</i>	<i>Platypectia tomentosa</i>	<i>Platypectia usingeri</i>	<i>Platypectia vanduzeei</i>	<i>Tibicinoides cupreo-sparsus</i>	<i>Tibicinoides mercedita</i>	
	X	X		X	X														X						X									Alameda Alpine Amador
				•	X			•																										Butte Calaveras Colusa
	X	X		X	X							X							X						X									Contra Costa Del Norte El Dorado
	X	X		X									X													X								Fresno Glenn Humboldt
	X			X	X		X	X		X																X								Imperial Inyo Kern
	X	X		X	X		•					X	X						X															Kings Lake Lassen
	X	X		X	X			X	X					•						•	X				X						X	X	•	Los Angeles Madera Marin
	X	X		X	X							X							•		X				X									Mariposa Mendocino Merced
	X			X	X								X							X	X	X				X								Modoc Mono Monterey
	X	X		•								X								X					X									Napa Nevada Orange
	X			X	X					X									X															Placer Plumas Riverside
	X			X	X					X		X	X								X											X		Sacramento San Benito San Bernardino
				X																											X	X		San Diego San Francisco San Joaquin
	X			X	X							X								X														San Luis Obispo San Mateo Santa Barbara
	X			X	X													X						X	X									Santa Clara Santa Cruz Shasta
	X	X		X	X															X	X													Sierra Siskiyou Solano
	X	X		X								X								X	•				X			X						Sonoma Stanislaus Sutter
X	X	X		•	X	X	X										X			X	X				X	X								Tehama Trinity Tulare
	X	X		X	X			X									X								X									Tuolumne Ventura Yolo Yuba

County records which have been verified by examination of specimens are marked with an X.  
Records from the literature are indicated by a dot.

Although keys for both sexes have been included for the genera *Okanagana* and *Platypedia*, they are not complete for the females. At this time the best diagnostic characters seem to be found on the aedeagus of the males. As an aid in the use of the keys to male specimens, outline drawings showing the lateral and dorsal aspects of the aedeagi of most species have been included. These drawings, with the exception of those labeled as being after Davis, have all been projected on the same scale. In addition, figure 1 has been labeled to indicate the venation of a cicada forewing.

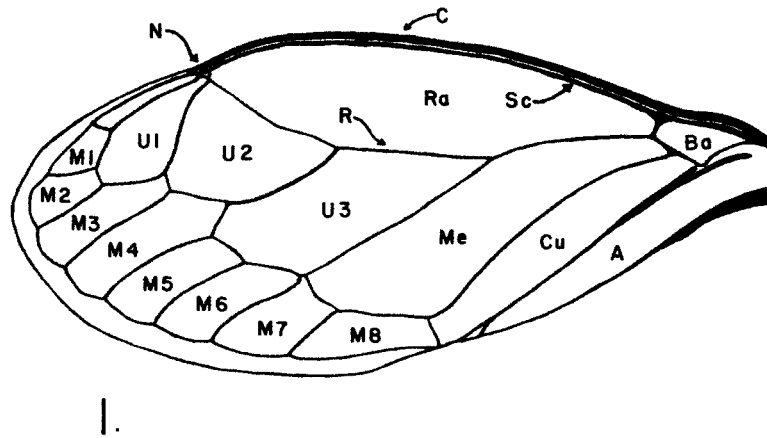


Fig. 1. Forewing of the genus *Platypedia*. Abbreviations are as follows: An = anal cell; Ba = basal cell; C = costa; Cu = cubital cell; M<sub>1</sub>, M<sub>2</sub>, etc. = marginal cells; Me = medial cell; N = node; R = radius; Ra = radial cell; Sc = subcosta; U<sub>1</sub>, U<sub>2</sub>, etc. = ulnar cells.

Cicada collecting, though a very interesting pastime, is sufficiently specialized so that only a few people have amassed extensive collections. In view of this the author feels it proper to make special note of the efforts of these workers. The most important single contributor to our knowledge of California cicadas has undoubtedly been F. H. Wymore. Several other men who have made important collections are E. P. Van Duzee, E. C. Van Dyke, W. T. Davis, E. R. Leach, E. O. Essig, and R. L. Usinger.

In preparing the lists of distribution, only specimens that have been examined by the author are included. These records have been based on material found in the following collections: the California Insect Survey, University of California, Berkeley (C.I.S.); University of California at Davis, College of Agriculture (U.C.D.); University of California at Riverside (U.C.R.); and the California Academy of Sciences, San Francisco, California (C.A.S.).

The author wishes to express his appreciation to the officials of these institutions for their aid and coöperation in studying material in their custody.

### Key to California Genera of Cicadas

- 1. Mesonotum covering part of posterior portion of metanotum, operculum of male greatly exceeding hind coxae. . . . . 2
- Mesonotum not covering any of posterior margin of mesonotum, operculum of male not exceeding hind coxae . . . . . 3
- 2(1). Seventh and eighth marginal cells of forewing about twice as long as broad; abdomen tapering behind to a V-shape . . . . . *Diceropracta apache* Davis p. 165
- Seventh and eighth marginal cells of forewing less than one and one-half times as long as broad; abdomen behind broadly rounded . . . . . *Cacama* Distant p. 157
- 3(1). Node of forewing about two-thirds out on the costal margin (fig. 1) . . . . . 4
- Node of forewing in middle of costal margin (pl. 42, b) . . . . . 5



- 4(3). Forewing with eight marginal cells (fig. 1) . . . . . *Platypedia* Uhler p. 157  
 Forewing with seven marginal cells . . . . . *Neoplatypedia* Davis p. 159
- 5(3). Pronotum constricted except at posterior margin so that it is definitely narrower than the rest of the notum (pl. 44, *f*) . . . . . *Okanagodes gracilis* Davis p. 171  
 Pronotum not constricted as above . . . . . 6
- 6(5). Radial cell of forewing greatly expanded (pl. 41, *a*), the transverse cross vein between M<sub>8</sub> and Cu usually greatly thickened . . . . . *Clidophleps* Van Duzee p. 159  
 Radial cell of forewing not expanded (pl. 41, *b*); the transverse cross vein between M<sub>8</sub> and Cu never thickened. . . . . 7
- 7(6). Third marginal cell of forewing at least three-fourths the length of U<sub>2</sub>; marginal row of cells subequal in length to ulnar row<sup>1</sup> (pl. 41, *b*) . . . . . *Okanagana* Distant p. 160  
 Third marginal cell of forewing about one-half the length of U<sub>2</sub>; marginal row of cells about one-half the length of the ulnar row (pl. 41, *c*) . . . . . *Tibicinoides* Distant p. 165

## KEYS TO SPECIES

### Genus *Cacama* Distant

1. Rostrum reaching posterior coxae or beyond, first and second cross veins of forewing heavily infuscated; aedeagus as in pl. 42, *a* . . . . . *crepitans* (Van Duzee) p. 166  
 Rostrum barely reaching posterior coxae, first and second cross veins of forewing only slightly infuscated . . . . . 2
- 2(1). Wings with basal membranes orange . . . . . *californica* Davis p. 165  
 Wings with basal membranes white . . . . . *valvata* (Uhler) p. 165

### Genus *Platypedia* Uhler

1. Males; abdomen terminating with aedeagus which is situated in the hypandrium (= valve) 2  
 Females; abdomen terminating without above process, beneath with a sword-shaped ovipositor . . . . . 22
- 2(1). Basal membranes of wings white to yellowish-white . . . . . 3  
 Basal membranes of wings orange to red . . . . . 13
- 3(2). Abdomen beneath with many long whitish hairs . . . . . 4  
 Abdomen beneath without long hairs, may be very pubescent, however . . . . . 5
- 4(3). Abdomen dorsally with many long hairs, aedeagus as in pl. 42, *b* . . . . . *tomentosa* Davis p. 166  
 Abdomen dorsally with only a few short hairs, aedeagus as in pl. 42, *c* . . . . . *falcata* Davis p. 166
- 5(3). Pronotum with much pale marking; aedeagus as in pl. 42, *d* . . . . . *middlekauffi* Simons p. 166  
 Pronotum black except for margins and median sulcus which may be pale or orange . . . . . 6
- 6(5). Aedeagus in profile broadened greatly in basal third (pl. 42, *e*) . . . . . 7  
 Aedeagus in profile not as above . . . . . 8
- 7(6). Fore femora black; aedeagus as in pl. 42, *e* . . . . . *putnami keddiensis* Davis p. 166  
 Fore femora chestnut; aedeagus as in pl. 42, *f* . . . . . *areolata* (Uhler) p. 167

1. In *O. uncinata* this ratio is about two-thirds to one.

- 8(6). Forewings twice as long as broad; aedeagus as in pl. 42, *g* . . . . . *minor* (Uhler) p. 167  
Forewings at least two and one-half times long as broad . . . . . 9
- 9(8). Aedeagus in profile slightly upturned in distal half, in dorsal view with apical notch (pl. 42, *b*)  
. . . . . *scotti* Davis p. 168  
Aedeagus in profile not as above, in dorsal view smoothly rounded behind . . . . . 10
- 10(9). Aedeagus in profile not smoothly arched on top, the lower surface very sinuate (pl. 43, *c*)  
. . . . . *usingeri* Simons p. 168  
Aedeagus smoothly arched above in profile . . . . . 11
- 11(10). Pronotum broadly edged posteriorly with pale; aedeagus in profile with lower surface straight  
in distal two-thirds except for a subapical sinuation (pl. 43, *a*) . . . . . *similis* Davis p. 168  
Pronotum narrowly edged posteriorly with chestnut, aedeagus not as above . . . . . 12
- 12(11). Aedeagus in profile slightly arched on top, the lower surface concave centrally with a sub-  
apical sinuation (pl. 43, *b*) . . . . . *mariposa* Davis p. 169  
Aedeagus in profile very arched above, below almost straight centrally, turned down at apex  
(pl. 42, *d*) . . . . . *middlekauffi* Simons p. 166
- 13(2). Aedeagus in profile turned up in distal two-thirds of its length . . . . . 14  
Aedeagus in profile if bent at all apically, then bent downward . . . . . 16
- 14(13). Forewing about twice as long as broad; aedeagus as in pl. 43, *e* . . . . . *vanduzeei* Davis p. 169  
Forewings about two and one-half times as long as broad . . . . . 15
- 15(14). Head very hairy; aedeagus in dorsal view about as broad as long (pl. 43, *f*) . . . . .  
. . . . . *aperta* Van Duzee p. 169  
Head with only a few hairs; aedeagus in dorsal view almost twice as long as broad (pl. 43, *d*)  
. . . . . *laticapitata* Davis p. 169
- 16(13). Forewings about twice as long as broad . . . . . 17  
Forewings about two and one-half times as long as broad . . . . . 18
- 17(16). Head very hairy; aedeagus in profile evenly arched dorsally, slightly turned down at apex  
(pl. 43, *g*) . . . . . *barbata* Davis p. 169  
Head not hairy; aedeagus in profile not evenly arched dorsally nor turned down apically  
(pl. 43, *b*) . . . . . *sylvesteri* Simons p. 170
- 18(16). Aedeagus in profile noticeably broadened in proximal third . . . . . 19  
Aedeagus in profile not noticeably broadened in proximal third . . . . . 20
- 19(18). Fore femora chestnut or pale; aedeagus as in pl. 42, *e* . . . . . *putnami occidentalis* Davis p. 170  
Fore femora black except for pale tips; aedeagus as in pl. 42, *e* . . . . .  
. . . . . *putnami putnami* (Uhler) p. 170
- 20(18). Aedeagus in profile with both surfaces tapering to a point distally (pl. 44, *a*) . . . . .  
. . . . . *mohavensis* Davis p. 170  
Aedeagus in profile almost parallel sided in proximal two-thirds or with bottom surface  
almost straight and upper surface arched distally (pl. 44, *b, c*) . . . . . 21
- 21(20). Venation of forewing pale except for marginal cells which are black; aedeagus as in pl. 44, *b*  
. . . . . *rufipes* Davis p. 170  
Venation of forewing black except for costa; aedeagus as in pl. 44, *c* . . . . .  
. . . . . *bernardoensis* Simons p. 170
- 22(1). Basal membranes of wings white to yellowish white . . . . . 23  
Basal membranes of wings orange to red . . . . . 29
- 23(22). Abdomen beneath with many long white hairs . . . . . 24  
Abdomen beneath without long hairs, may be covered densely with appressed white pubes-  
cence, however . . . . . 25

- 24(23). Abdomen dorsally with many long hairs . . . . . *tomentosa* Davis p. 166  
 Abdomen dorsally with only a few short hairs . . . . . *falcata* Davis p. 166
- 25(23). Pronotum with much pale marking . . . . . *middlekauffi* Simons p. 166  
 Pronotum black except for margins which may be pale or chestnut . . . . . 26
- 26(25). Fore femora black, except for pale tips . . . . . *putnami keddiensis* Davis p. 166  
 Fore femora pale to chestnut . . . . . 27
- 27(26). Forewings twice as long as broad . . . . . *minor* Uhler p. 167  
 Forewings two and one-half to three times as long as broad . . . . . 28
- 28(27). Pronotum broadly edged with pale yellow posteriorly . . . . . *similis* Davis p. 168  
 . . . . . *areolata* (Uhler) p. 167  
 Pronotum narrowly edged posteriorly with chestnut . . . . . *middlekauffi* Simons p. 166  
 . . . . . *scotti* Davis p. 168  
 . . . . . *mariposa* Davis p. 169  
 . . . . . *usingeri* Simons p. 168
- 29(22). Forewings twice as long as broad . . . . . 30  
 Forewings at least two and a half times as long as broad . . . . . 32
- 30(29). Head not hairy . . . . . *sylvesteri* Simons<sup>2</sup> p. 170  
 Head very hairy . . . . . 31
- 31(30). Last ventral segment with notch narrowly V-shaped . . . . . *vanduzeei* Davis p. 169  
 Last ventral segment with notch U-shaped . . . . .  *barbata* Davis p. 169
- 32(29). Fore femora black, at least on inner surface, usually entirely so except for pale tips . . 33  
 Fore femora mostly pale or chestnut, may be blackened beneath . . . . . 35
- 33(32). Abdomen above with much appressed short hair giving the insect a dull gray appearance  
 . . . . . *laticapitata* Davis p. 169  
 Abdomen above shining black, often with metallic reflections . . . . . 34
- 34(33). Head very prominent, narrow across the eyes . . . . . *mohavensis* Davis p. 170  
 Head not prominent, about as broad as deep across the eyes . *putnami putnami* (Uhler) p. 170
- 35(32). Venation of forewing pale except for marginal cells which are black . . . . . *rufipes* Davis p. 170  
 Venation of forewing, except for costa, black . . . . . 36
- 36(35). Head prominently produced, narrow across the eyes . . . . . *bernardoensis* Simons p. 170  
 Head not prominent, about as broad as deep across the eyes . . . . .  
 . . . . . *putnami occidentalis* Davis p. 170

Genus *Neoplatypedia* Davis

1. Wings with basal membranes white; aedeagus of male in dorsal view slipper-shaped (pl. 44, *d*)  
 . . . . . *ampliata* (Van Duzee) p. 170  
 Wings with basal membranes orange; aedeagus of male in dorsal view suddenly constricted  
 at apical third to form an elongated point (pl. 44, *e*) . . . . . *constricta* Davis p. 171

Genus *Clidophleps* Van Duzee

1. Males; abdomen terminating with aedeagus which is situated in the hypandrium (= valve) 2  
 Females; abdomen terminating without above processes, beneath with a sword-shaped ovi-  
 positor . . . . . 6

2. No females of this species have been seen, but it is assumed that they would parallel the males in the above morphological characteristics.

- 2(1). Forewing with the cross vein between M<sub>2</sub> and Cu not thickened; aedeagus as in pl. 44, g  
 . . . . . *vagens* Davis p. 171  
 Forewing with the cross vein between M<sub>2</sub> and Cu greatly thickened . . . . . 3
- 3(2). Pronotum black with only the median sulcus and margins orange . . . . . 4  
 Pronotum as above but with lateral pale markings also, may be entirely pale; aedeagus as  
 in pl. 45, c . . . . . *distanti* Van Duzee p. 171
- 4(3). Aedeagus in dorsal view constricted basally (pl. 44, b) . . . . . *wrighti* Davis p. 171  
 Aedeagus in dorsal view triangular in shape . . . . . 5
- 5(4). Aedeagus in profile with apical third about one-third the depth of the basal third (pl. 45, a),  
 hairs on basal third subequal to its depth; abdomen beneath with sparse silvery pubes-  
 cence . . . . . *blaisdelli* (Uhler) p. 171  
 Aedeagus in profile with apical third about one-half the depth of the basal third (pl. 45, b),  
 hairs on basal third about one-half its depth; abdomen beneath with much silvery pubes-  
 cence . . . . . *tenuis* Davis p. 172
- 6(1). Forewing with the cross vein between M<sub>2</sub> and Cu not thickened . . . . . *vagens* Davis p. 171  
 Forewing with above cross vein greatly thickened . . . . . 7
- 7(6). Pronotum black with only the median sulcus and margins orange . . . . . 8  
 Pronotum with varied pale markings in addition to the above, may be entirely pale . .  
 . . . . . *distanti* Van Duzee p. 171
- 8(7). Abdomen beneath with much silvery pubescence . . . . . *tenuis* Davis p. 172  
 Abdomen beneath with very sparse silvery pubescence . . . . . 9
- 9(8). Front femora mostly orange on outside, mesothorax with a few hairs alongside the X .  
 . . . . . *blaisdelli* (Uhler) p. 171  
 Front femora orange with a longitudinal black stripe on the outside; mesothorax with dense  
 tufts of silvery pubescence alongside the X . . . . . *wrighti* Davis p. 171

### Genus *Okanagana* Distant

1. Males; abdomen terminating with aedeagus which is situated in the hypandrium (= valve) 2  
 Females; abdomen terminating without above process, beneath with a sword-shaped ovi-  
 positor . . . . . 38
- 2(1). Aedeagus in profile with a prominent apical hook (pl. 48, a) . . . . . 3  
 Aedeagus in profile not hooked as above (pl. 48, b), may be turned down slightly (pl. 46, a) 10
- 3(2). Marginal cells of forewing about two-thirds the length of the ulnar row, wing expanse about  
 42 mm.; aedeagus as in pl. 48, a, 5 . . . . . *uncinata* Van Duzee p. 175  
 Marginal cells of forewing subequal in length to the ulnar row, wing expanse 52 mm. or  
 more . . . . . 4
- 4(3). Venation and abdomen above dull reddish; aedeagus as in pl. 48, a, 4 . . . . .  
 . . . . . *rubrovenosa* Davis p. 172  
 Venation and abdomen above not dull reddish . . . . . 5
- 5(4). Abdomen beneath with many long hairs . . . . . 6  
 Abdomen beneath with at most a few short hairs . . . . . 7
- 6(5). Outer margin of forewing forming a smoothly curved line; wing expanse 60-65 mm.; aedeagus  
 as in pl. 48, a, 1 . . . . . *vanduzeei* Distant p. 173  
 Outer margin of forewing forming an almost straight line, wing expanse 75 mm.; aedeagus  
 as in pl. 48, a, 1 . . . . . *simulata* Davis p. 175
- 7(5). Abdomen beneath marked with black; aedeagus as in pl. 48, a, 2. . . . . *utahensis* Davis p. 175  
 Abdomen beneath completely pale . . . . . 8

- 8(7). Head produced very prominently, in profile almost conical in shape; dorsum usually pale or greenish; aedeagus as in pl. 48, *a*, 3 . . . . . *pallidula* Davis p. 172  
 Head produced prominently, but in profile more triangular in shape . . . . . 9
- 9(8). Dorsum almost entirely pale; aedeagus as in pl. 48, *a*, 2; wing expanse 65 mm. . . . .  
 . . . . . *utabensis* Davis p. 175  
 Dorsum black; aedeagus as in pl. 48, *a*, 2; wing expanse about 53 mm.  
 . . . . . *striatipes* (Hald.) p. 175
- 10(2). Wing expanse 58 mm. or more . . . . . 11  
 Wing expanse 52 mm. or less . . . . . 35
- 11(10). Dorsum green and black; aedeagus as in pl. 45, *d* . . . . . *nigriviridis* Davis p. 176  
 Dorsum not green and black . . . . . 12
- 12(11). Body dull red, at least in thoracic region . . . . . 13  
 Body not dull red . . . . . 14
- 13(12). Wings hyaline; abdomen with black dorsal line; aedeagus as in pl. 48, *b*, 4 . . . . .  
 . . . . . *arctostaphylae* Van Duzee p. 176  
 Wings opaque; abdomen entirely black above, except for last two tergites; aedeagus as in  
 pl. 45, *e* . . . . . *opacipennis* Davis p. 176
- 14(12). Basal membranes of wings white; aedeagus as in pl. 48, *b*, 5 . . . . . *alibasilis* Wymore p. 176  
 Basal membranes of wings other than white . . . . . 15
- 15(14). Pronotum pale; mesonotum black with two broad pale marks above anterior to the X; aedeagus  
 as in pl. 45, *f* . . . . . *vandykei* Van Duzee p. 176  
 Not as above . . . . . 16
- 16(15). Abdomen beneath almost entirely pale orange or yellowish . . . . . 17  
 Abdomen beneath with much black marking . . . . . 21
- 17(16). Thorax with much silvery pubescence giving the insect a dull gray appearance; aedeagus as  
 in pl. 48, *b*, 6 . . . . . *davisi* Simons p. 177  
 Thorax not as above . . . . . 18
- 18(17). Hind margin of prothorax black . . . . . 19  
 Hind margin of prothorax orange . . . . . 20
- 19(18). Venation mostly black; prothorax usually entirely black, at times with two lateral rufous  
 spots; abdominal tergites black except for lateral margins which may be orange; aedeagus  
 as in pl. 45, *g* . . . . . *tristis* Van Duzee p. 177  
 Venation uniformly pale; prothorax with two broad pale spots; abdominal tergites black,  
 narrowly bordered with pale; aedeagus as in pl. 48, *b*, 4 . . . . . *napa* Davis p. 178
- 20(18). Dorsum shiny, may be orange in entirety; if black, then abdominal tergites bordered promi-  
 nently with orange; valve orange; aedeagus as in pl. 48, *b*, 4 . . . . . *arboraria* Wymore p. 178  
 Dorsum dull appearing; abdominal tergites black narrowly bordered with orange; valve black  
 laterally; aedeagus as in pl. 48, *b*, 6 . . . . . *canescens* Van Duzee p. 177
- 21(16). Hind margin of pronotum black . . . . . 22  
 Hind margin of pronotum orange or reddish . . . . . 28
- 22(21). Abdomen beneath mostly black except for a median orange or reddish orange stripe; aedeagus  
 as in pl. 45, *g* . . . . . *tristis* Van Duzee p. 177  
 Abdomen beneath not as above . . . . . 23
- 23(22). Venation of forewing except for marginal cells orange; aedeagus as in pl. 45, *b* . . . . .  
 . . . . . *aurora* Davis p. 178  
 Venation of forewing not orange as above . . . . . 24
- 24(23). Costal margin of forewing entirely orange, venation thickened . . . . . 25  
 Costal margin of forewing to node only orange, venation not thickened . . . . . 26

- 25(24). Aedeagus in profile turned down at apex (pl. 46, *a*) . . . . . *magnifica* Davis p. 178  
 Aedeagus in profile not turned down at apex (pl. 46, *b*) . . . . . *sperata* Van Duzee p. 178
- 26(24). Dorsum completely black except for a small lateral patch of pale orange on each side of the mesonotum; aedeagus as in pl. 48, *b*, 5 . . . . . *nigrodorsata* Davis p. 178  
 Dorsum not as above, abdominal tergites, at least 8 and 9 marked with orange or reddish orange . . . . . 27
- 27(26). Wing expanse more than 70 mm.; abdominal tergites narrowly edged with reddish orange; costa to node of forewing and basal membranes of wings red, veins of marginal cells slightly infuscated; aedeagus as in pl. 48, *b*, 5 . . . . . *cruentifera* (Uhler) p. 179  
 Wing expanse 60 mm.; abdominal tergites black except 8 and 9 which are edged broadly with orange; costa to node of forewing and basal membranes of wings orange, veins of marginal cells not infuscated; aedeagus as in pl. 48, *b*, 6 . . . . . *ornata* Van Duzee p. 179
- 28(21). Aedeagus in profile about four times as long as broad, arched above, in dorsal view with a 180° arclike notch (pl. 46, *c*) . . . . . *venusta* Davis p. 179  
 Aedeagus not more than three times as long as broad, without apical notch of above shape . . . . . 29
- 29(28). Aedeagus very squarish at apex when viewed in profile, from two to two and a half times as long as broad (pl. 46, *d*); wing expanse more than 75 mm. . . . . *mariposa* Davis p. 179  
 Aedeagus more tapering at apex in profile, from two and three-quarters to three times as long as broad, wing expanse 70 mm. or less. . . . . 30
- 30(29). Venation of forewing except for marginal cells orange; head produced very prominently in front; aedeagus as in pl. 47, *a* . . . . . *gibbera* Davis p. 181  
 Venation of forewing not as above; head not produced excessively . . . . . 31
- 31(30). Abdomen ventrally with many long hairs; aedeagus as in pl. 48, *b*, 6 . . . . .  
 . . . . . *occidentalis* (Walker) p. 176  
 Abdomen ventrally with at most a few short hairs. . . . . 32
- 32(31). Aedeagus in profile tapering to a point in apical half (pl. 47, *b*); pronotum with two rust-colored lateral spots . . . . . *ferrugomaculata* Davis p. 180  
 Aedeagus in profile with bottom surface bent upward from the apical fourth; pronotum usually black centrally, some specimens of *rimrosa* may have lateral patches of rufous . . . . . 33
- 33(32). Forewings narrow, ratio of width to length  $.30 \pm .01$ ; dull appearing dorsum; aedeagus as in pl. 47, *c* . . . . . *rimrosa* (Say) p. 180  
 Forewings broader, ratio of width to length  $.35 \pm .01$ ; dorsum shiny . . . . . 34
- 34(33). Valve black; dorsal tergites narrowly edged with reddish orange; aedeagus in dorsal view with two apical bulbous protuberances (pl. 48, *b*, 6) . . . . . *bella* Davis p. 180  
 Valve orange, dorsal tergites broadly edged with orange; aedeagus in dorsal view curved smoothly on sides, with a slight apical indentation (pl. 48, *b*, 4) . . . . . *annulata* Davis p. 181
- 35(10). Abdomen very hairy dorsally and ventrally; aedeagus as in pl. 48, *b*, 1 *villosa* Davis p. 176  
 Abdomen not hairy as above, may have a few short hairs . . . . . 36
- 36(35). Aedeagus in dorsal view with an apical arclike notch (pl. 48, *b*, 2); abdominal tergites often with a triangular, black patch present . . . . . *triangulata* Davis p. 181  
 Aedeagus not as above, abdominal tergites black edged with orange . . . . . 37
- 37(36). Aedeagus in profile with lower surface bent upward in apical fourth, in dorsal view constricted apically (pl. 48, *b*, 3) . . . . . *wymorei* Davis p. 181  
 Aedeagus in profile with lower surface bent upward in apical half, in dorsal view not constricted but with two protuberances distally (pl. 47, *d*) . . . . . *oregona* Davis p. 182
- 38(1). Dorsum black and green . . . . . *nigriviridis* Davis p. 176  
 Dorsum not as above . . . . . 39

- 39(38). Venation of forewings entirely dull reddish or forewing opaque, dorsum dull red, sometimes with black . . . . . 40  
 Venation of forewings not entirely dull reddish or opaque, may be reddish except for marginal cells, dorsum not dull red . . . . . 42
- 40(39). Forewings opaque . . . . . *opacipennis* Davis p. 176  
 Forewings hyaline, basal cell may be opaque . . . . . 41
- 41(40). Slender-bodied species; forewings with ratio of width to length  $.30 \pm .01$ ; notum usually black covered with minute dull red hairs, at times notum is dull red; abdomen dull reddish; wing expanse 58 mm. . . . . *rubrovenosa* Davis p. 172  
 More robust species; forewings with ratio of width to length  $.36 \pm .01$ ; notum dull reddish, abdomen with black dorsal line; wing expanse 70 mm.. *arctostaphylae* Van Duzee p. 176
- 42(39). Basal membranes of wings white . . . . . *alibasilis* Wymore p. 176  
 Basal membranes of wings reddish or orange variegated with black . . . . . 43
- 43(42). Dorsum entirely pale or nearly so . . . . . 44  
 Dorsum not entirely pale, mostly black . . . . . 47
- 44(43). Abdomen beneath with many long hairs . . . . . *vanduzeei* Distant p. 173  
 Abdomen beneath with only a few short hairs . . . . . 45
- 45(44). Head produced very prominently, often almost conically . . . . . 46  
 Head not produced conically, the depth from above about one-half the width . . . . .  
 . . . . . *triangulata* Davis p. 181  
 . . . . . *arboraria* Wymore p. 178
- 46(45). Head produced conically, wing expanse 50 mm. . . . . *pallidula* Davis p. 172  
 Head produced triangularly; wing expanse 62 mm. . . . . *utahensis* Davis p. 175
- 47(43). Pronotum pale, mesonotum black with two broad pale marks anterior to the mesonotal X  
 . . . . . *vandykei* Van Duzee p. 176  
 Pronotum black, at least in part, mesonotum not as above . . . . . 48
- 48(47). Notum covered with silvery pubescence, abdomen beneath pale . . . . . *davisi* Simons p. 177  
 Not as above . . . . . 49
- 49(48). Pronotum entirely black on hind margin . . . . . 50  
 Pronotum with hind margin pale . . . . . 56
- 50(49). Venation of forewing reddish except for black marginal cells . . . . . *aurora* Davis p. 178  
 Venation of forewings not as above . . . . . 51
- 51(50). Venation of forewings thickened, costal margin bright orange. . . . . *magnifica* Davis p. 178  
 . . . . . *sperata* Van Duzee p. 178  
 Venation of forewings not thickened, costal margin if orange, then so to node only . . . . . 52
- 52(51). Dorsum entirely black except for a small lateral patch of pale orange on each side of mesonotum . . . . . *nigrodorsata* Davis p. 178  
 Dorsum with either tergites 8 and 9 or the mesonotum marked with orange or reddish . . . . . 53
- 53(52). Mesonotum with orange markings . . . . . 54  
 Mesonotum nearly entirely black . . . . . 55
- 54(53). Prothorax usually entirely black, at times with two lateral rufous spots; venation black and pale . . . . . *tristis* Van Duzee p. 177  
 Prothorax broadly margined posteriorly with black, with two lateral pale areas, venation uniformly pale . . . . . *napa* Davis p. 178
- 55(53). Wing expanse over 70 mm.; costa to node of forewing and basal membranes of wings red, marginal cells slightly infuscated . . . . . *cruentifera* (Uhler) p. 179  
 Wing expanse about 62 mm.; above colorations orange; marginal cells of forewing not infuscated . . . . . *ornata* Van Duzee p. 179

- 56(49). Wing expanse 52 mm. or less . . . . . 57  
 Wing expanse 58 mm. or more . . . . . 61
- 57(56). Abdomen very hairy ventrally . . . . . *villosa* Davis p. 176  
 Abdomen ventrally with only a few short hairs . . . . . 58
- 58(57). Venation of forewing with marginal cells about two-thirds the length of the opposing ulnar cells . . . . . *uncinata* Van Duzee p. 175  
 Venation of forewing with marginal cells more nearly subequal in length to ulnar cells . . . . . 59
- 59(58). Front of head produced very prominently, in profile the depth and width being subequal . . . . .  
 . . . . . *pallidula* Davis p. 172  
 . . . . . *striatipes* (Hald.) p. 175  
 Front of head not produced so prominently, in profile the depth being about twice the width . . . . . 60
- 60(59). Abdominal tergites with black triangular patch whose base is on second tergite and apex on the sixth or seventh tergite . . . . . *triangulata* Davis p. 181  
 Abdominal tergites black, bordered posteriorly with orange . . . . . *oregona* Davis p. 182  
 . . . . . *triangulata* Davis p. 181  
 . . . . . *wymorei* Davis p. 181
- 61(56). Abdomen pale beneath . . . . . 62  
 Abdomen beneath marked with black . . . . . 65
- 62(61). Abdomen beneath with many long hairs . . . . . *vanduzeei* Distant p. 173  
 Abdomen beneath with at most a few short hairs . . . . . 63
- 63(62). Dull appearing species; dorsal tergites very narrowly bordered with orange . . . . .  
 . . . . . *canescens* Van Duzee p. 177  
 Dorsum shiny; dorsal tergites not as above . . . . . 64
- 64(63). Head produced in front prominently, the depth subequal to the width; pronotum and mesonotum mostly pale . . . . . *utahensis* Davis p. 175  
 Head produced in front with the depth about one-half the width; pronotum and mesonotum mostly black . . . . . *arboraria* Wymore p. 178
- 65(61). Venation of forewing orange except for marginal cells which are black, head greatly produced . . . . . *gibbera* Davis p. 181  
 Venation of forewing not as above . . . . . 66
- 66(65). Abdomen beneath with many long hairs . . . . . 67  
 Abdomen beneath with at most a few short hairs . . . . . 69
- 67(66). Wing expanse 75 mm., outer edge of forewing forming an almost straight line . . . . .  
 . . . . . *simulata* Davis p. 175  
 Wing expanse not more than 65 mm.; outer edge of forewing forming a smoothly curved line 68
- 68(67). Abdomen above almost entirely black . . . . . *vanduzeei* Distant p. 173  
 Abdomen above with each tergite bordered conspicuously with orange . . . . .  
 . . . . . *occidentalis* (Walker) p. 176
- 69(66). Head produced very prominently . . . . . *utahensis* Davis p. 175  
 Head not produced prominently . . . . . 70
- 70(69). Outer edge of forewing forming almost a straight line; dorsal tergites black with no more than the first or the eighth and ninth bordered with orange; wing expanse 72 mm. or more . . . . . 71  
 Outer edge of forewing forming an almost curved line; dorsal tergites black, bordered with reddish or orange; wing expanse not more than 65 mm. . . . . 72



- 71(70). Costal margin to node bright orange yellow; pronotum black with hind margin broadly orange  
 . . . . . *venusta* Davis p. 179  
 Costal margin to node pale yellow; pronotum black with hind margin narrowly bordered with  
 pale . . . . . *mariposa* Davis p. 179
- 72(70). Dull appearing species; ratio of width to length of forewing  $.29 \pm .01$  *rimrosa* (Say) p. 180  
 Shiny dorsum, ratio of width to length of forewing usually  $.35 \pm .01$  occasionally less in  
*ferrugomaculata* . . . . . 73
- 73(72). Pronotum black with lateral rufous areas . . . . . *ferrugomaculata* Davis p. 180  
 Pronotum black without lateral rufous areas . . . . . *annulata* Davis p. 181  
 . . . . . *bella* Davis p. 180

Genus *Tibicinoides* Distant

1. Wings hyaline, membranes orange; aedeagus as in pl. 47, e . . . *mercedita* (Davis)<sup>3</sup> p. 182  
 Basal half of forewings smoky, membranes deep red; aedeagus as in pl. 47, f . . .  
 . . . . . *cupreo-sparsus* (Uhler) p. 182

## DISCUSSION OF SPECIES

*Diceropracta apache* Davis

*Tibicen apache* Davis, 1921, Jour. N.Y. Ent. Soc. 29:3-5 Holotype ♂, allotype ♀, and 53 ♂ and 12 ♀ paratypes, Florence, Ariz.

Geographical range: Arizona, California, Nevada, Utah.

California records:

Imperial Co.: Holtville, ♀, VIII-6-40 (P. H. Timberlake, U.C.R.); Imperial Valley, ♂, ♀, VI-6-15 (Woodworth, C.A.S.). San Felipe Creek, ♂, VIII-8-35 (H. S. Gentry, U.C.D.).

Riverside Co.: Blythe, 2 ♂, 2 ♀, VII-21-46 (P. D. Hurd, R. F. Smith, C.I.S.); ♂, VII-23-46 (W. F. Barr, C.I.S.); 2 ♂, 2 ♀, VII-12-45 (R. F. Smith, C.I.S.); 8 ♂, 2 ♀, VII-14-38 (P. H. Timberlake, U.C.R.). Blythe, near Colorado River, 4 ♂, 2 ♀, VII-20-46 (E. C. Van Dyke, C.A.S.). Cathedral City, 4 ♂, 3 ♀, VII-5-50; ♂, VII-18-50; 3 ♀, VII-10-50; ♀, VIII-5-50 (L. W. Isaak, U.C.D.). Coachella, 2 ♂, VII-15-27; ♀, VI-5-26; ♂, ♀, VI-26-30 (F. H. Wymore, C.I.S.); 40 ♂, 31 ♀, VII-15-27; 3 ♂, 5 ♀, VI-26-30 (F. H. Wymore, C.A.S.); 40 ♂, 31 ♀, VII-15-27; 3 ♂, 5 ♀, VI-26-30 (F. H. Wymore, C.A.S.); 5 ♂, 3 ♀, VI-5-26 (J. F. Lamiman, C.A.S.); ♀, VII-1-31; ♂, VIII-8-29 (R. L. Usinger, C.I.S.); ♂, IV-11-33 (P. D. Hurd, R. F. Smith, C.I.S.). Hemet, ♂, ♀, VII-10-45

(R. F. Smith, C.I.S.). Indio, 3 ♂, ♀, VI-23-48 (A. T. McClay, U.C.D.); 6 ♂, 2 ♀, VII-12-45 (R. F. Smith, C.I.S.); 2 ♂, VI-27-36 (E. S. Ross, C.A.S.); ♂, 3 ♀, VI-3-26 (J. F. Lamiman, C.A.S.); 6 ♂, 3 ♀, VII-8-32 (P. H. Timberlake, U.C.R.); 2 ♂, ♀, VII-25-33 (Maxwell, U.C.R.). Palm Springs, 2 ♂, ♀, VI-26-30 (F. H. Wymore, C.A.S.); ♀, VII-4-50 (J. C. Hall, U.C.D.); 3 ♂, VII-8-50 (H. N. Yokoyama, U.C.D.); 4 ♂, ♀, VII-9-50 (T. R. Haig, C.I.S.); 7 ♂, ♀, VIII-28-34 (P. H. Timberlake, U.C.R.); 3 ♂, 2 ♀, VIII-9-34 (C. M. Dammers, U.C.R.). Thousand Palms, 3 ♂, ♀, VI-1-28 (Simmonds, C.A.S.).

*Cacama californica* Davis

*Cacama californica* Davis, 1919, Jour. N.Y. Ent. Soc. 27:75. Holotype ♂, allotype ♀, Los Angeles Co., Calif.

Geographical range: California.

California records:

No specimens seen.

*Cacama valvata* (Uhler)

*Proarna valvata* Uhler, 1888, Entom. Amer.

3. *T. minuta* (Davis) is here considered synonymous with *T. mercedita*.

4:84. Type Locality, Pecos River, Texas.  
Geographical range: Arizona, California, Texas,  
Mexico.

California records:

Inyo Co.: Lone Pine, ♂, VI-12-37 (E. C. Van Dyke, C.A.S.).

San Diego Co.: San Felipe Valley, 6 ♂, ♀, VII-6-40 (F. H. Rindge, C.I.S.); 2 ♂, same data (H. T. Reynolds, C.I.S.); ♂, same data (R. L. Usinger, C.I.S.); 2 ♂, ♀, same data (D. J. Raski, C.I.S.).

*Cacama crepitans* (Van Duzee)

*Proarna crepitans* Van Duzee, 1914, Trans. San Diego Soc. Nat. Hist. 2:45. Holotype ♂ and 6 ♂ paratypes, San Diego, Calif.

Geographical range: Arizona, California.

California records:

Los Angeles Co.: Pomona, ♂, ♀, VII-28-31 (H. L. McKenzie, U.C.R.); 4 ♂, ♀, VII-25-31; ♂, VII-28-31 (C. E. Nordlund, C.I.S.).

Orange Co.: Santa Ana Canyon, 6 ♂, ♀, VIII-3-27 (F. H. Wymore, C.A.S.). Olive, ♂, VIII-10-40 (P. D. Hurd, C.I.S.). Trabuco Canyon, ♂, V-28-40; ♂, V-31-40 (P. D. Hurd, C.I.S.). Laguna Beach, ♂, (C. E. Nordlund, U.C.D.); ♂, VI-20-39 (B. Brookman, C.I.S.); ♂, VII-3-32 (H. J. Jensen, C.I.S.); 2 ♂, VII-23-21 (E. O. Essig, C.I.S.); 5 ♂, ♀, VII-23-27 (F. H. Wymore, C.A.S.); 19 ♂, VII-24-27 (T. Craig, C.A.S.).

San Diego Co.: Fallbrook, 4 mi. S., ♂, 2 ♀, VI-24-35 (P. H. Timberlake, U.C.R.). La Jolla, ♂, VIII-2-34 (P. H. Timberlake, U.C.R.). La Mesa, 6 ♂, VII-29-20 (W. S. Wright, C.A.S.). Murray Dam, ♂, 1920 (W. T. Davis, C.A.S.). San Diego, ♂, VI-2-30 (F. H. Wymore, C.A.S.).

*Platypedia falcata* Davis

*Platypedia falcata* Davis, 1920, Jour. N.Y. Ent. Soc. 28:113-114. Holotype ♂, El Paso, Texas.

August, unknown year.

Geographical range: California, Texas.

California records:

Monterey Co.: Paraiso Springs, ♂, V-27-27 (L. S. Slevin, C.A.S.).<sup>4</sup>

Santa Barbara Co.: Santa Barbara, ♂, IV-4-32 (A. T. McClay, C.A.S.).

*Platypedia tomentosa* Davis

*Platypedia tomentosa* Davis, 1942, Jour. N.Y.

Ent. Soc. 50:182-183. Holotype ♂, allotype

♀, 7 mi. W. Coalinga, Fresno Co., Calif.

Geographical range: California.

California records:

Stanislaus Co.: Adobe Creek, 22 mi. W. Patterson, ♂, V-23-48 (H. B. Leech, C.A.S.).

*Platypedia middlekauffi* Simons

*Platypedia middlekauffi* Simons, 1953, Pan-

Pacific Entom., 29:194-195. Holotype ♂,

allotype ♀, Auburn, Placer Co., Calif.

Geographical range: California.

California records:

Yuba Co.: Marysville, ♂, VI-26-30 (F. H. Wymore, C.A.S.).

*Platypedia putnami keddiensis* Davis

*Platypedia putnami* var. *keddiensis* Davis, 1920,

Jour. N.Y. Ent. Soc. 28:108-109. Types,

unstated number, Keddie, Plumas Co., Calif.

Geographical range: California, Oregon.

California records:

Eldorado Co.: Pollock Pines, ♀, VI-22-48 (R. C. Bynum, C.I.S.).

Modoc Co.: Unknown locality, ♀, VI-28-31 (E. R. Leach, C.A.S.).

Plumas Co.: Caribou, 14 ♂, 7 ♀, VI-10-31 (F. H. Wymore, C.A.S.); 2 ♂, 3 ♀ (same data, C.I.S.). Chester, ♂, ♀, VI-11-31 (F. H. Wymore, C.A.S.). Meadow Valley, 4 ♀, VI-1-24; ♂, 2 ♀, VI-3-24; 6 ♀, VI-4-24; 3 ♀, VI-6-24; ♂, 11 ♀, VI-7-24; 7 ♀, VI-9-24; ♂, 13 ♀, VI-10-24; ♀, VI-19-24; 3 ♂, 11 ♀, VI-20-24; ♀, VI-21-24 (E. C. Van Dyke, C.A.S.); ♂, 8 ♀, VI-5-24; 4 ♀, VI-7-24 (W. H. Nelson, C.I.S.); ♀, VI-6-24 (F. C. Hadden, C.I.S.); ♂, ♀, VI-5-24; ♀, V-14-24 (F. H. Wymore, C.A.S.). Quincy, ♀, VI-24-49 (H. A. Hunt, U.C.D.); Quincy, 4 mi. W., ♀, VI-21-49; (L. L. Jensen, C.I.S.); ♀, same data (J. W. MacSwain, C.I.S.).

Siskiyou Co.: Fredonia Camp, 2 ♂, ♀, V-31-46 (A. T. McClay, U.C.D.).

Tehama Co.: Morse Lake, ♀, VI-5-24 (F. C. Hadden, C.A.S.).

4. New state record.

*Platypedia areolata* (Uhler)

*Cicada areolata* Uhler, 1862, Proc. Acad. Nat. Sci., Phila., 8:285.

Geographical range: California, Idaho, Montana, Oregon, Utah, Washington.

California records:

Contra Costa Co.: Mt. Diablo, 3 ♂, ♀, VI-14-33 (E. C. Zimmerman, C.I.S.).

Humboldt Co.: Blocksburg, ♂, V-18-35 (C.I.S.); Fort Seward, 2 ♂, V-17-35 (E. O. Essig, C.A.S.); 2 ♀, VI-4-36 (F. H. Wymore, C.A.S.).

Lake Co.: Hullville, ♂, 5 ♀, VI-12-17; 8 ♂, 5 ♀, VI-14-17 (F. E. Blaisdell, C.A.S.).

Lassen Co.: Susanville, ♂, VI-1-46 (A. T. McClay, U.C.D.).

Marin Co.: Mill Valley, ♀, V-7-27 (R. L. Usinger, C.I.S.). Fairfax, hills near, ♀, V-5-20; ♀, III-31-28 (R. L. Usinger, C.I.S.). Phoenix Lake, ♂, IV-30-40 (J. W. Tilden, C.A.S.).

Mendocino Co.: Ryan Creek, ♀, V-30-49 (R. Craig, C.I.S.); Pigmy Forest, ♂, V-7-36 (R. L. Usinger, C.I.S.); 4 ♂, 2 ♀, IV-5-38 (E. C. Van Dyke, C.A.S.).

Napa Co.: Mt. St. Helena, ♀, V-15-51 (E. I. Schlinger, U.C.D.); ♀, VI-9-18 (E. P. Van Duzee, C.A.S.).

Sonoma Co.: Healdsburg, ♂, ♀, III-1-32 (C.A.S.). Sebastopol, ♂, III-21-40 (H. T. Reynolds, C.I.S.).

*Platypedia minor* Uhler

*Platypedia minor* Uhler, 1888, Entom. Amer. 4:81. Type locality, San Mateo, Calif.

Geographical range: California, Colorado, Nevada.

California records:

Alameda Co.: Livermore, ♀, V-10-40 (M. A. Cazier, C.I.S.); Niles Canyon, 2 ♀, IV-27-19 (C. L. Fox, C.A.S.); Oakland Hills, 2 ♂, ♀, IV-19-30 (E. C. Zimmerman, C.I.S.).

Contra Costa Co.: Mt. Diablo, east side, ♀, III-24-51 (E. I. Schlinger, U.C.D.); Mt. Diablo, Russelman Park, ♂, ♀ (R. L. Usinger, C.I.S.); Martinez, 2 ♂, III-30-30 (E. P. Van Duzee, C.A.S.).

Humboldt Co.: Blocksburg, 3 ♂, V-20-35; ♂, ♀, V-18-35 (E. O. Essig, C.I.S.); ♂, ♀, V-18-35 (A. S. Harrison, C.I.S.). Fort Seward, ♀, V-22-35 (E. A. Drews, C.I.S.); 4 ♂, 2 ♀, V-27-35; 4 ♀, V-24-35; 3 ♂, 9 ♀, V-20-35 (E. O. Essig, C.A.S.); ♂, ♀, V-24-35 (P. Schulthess, C.I.S.).

Lake Co.: near Hoberg's, ♂, VI-9-32 (F. H. Wymore, C.A.S.). Middletown, ♂, V-11-40 (K.

Frick, C.I.S.). Middle Creek, ♂, VI-7-32 (R. L. Usinger, C.I.S.). Clear Lake, ♂, V-24-41 (K. Frick, C.I.S.). Hullville, ♂, ♀, V-14-17 (C. D. deB. Reynolds, C.A.S.). Upper Lake, ♂, IV-17-22 (E. P. Van Duzee, C.A.S.). Blue Lake, ♂, IV-16-22 (E. P. Van Duzee, C.A.S.).

Marin Co.: Cypress Ridge, 3 ♂, 7 ♀, V-7-22; 3 ♀, V-7-11 (E. C. Van Dyke, C.A.S.). ♂, IV-10-21 (C.I.S.). Fairfax, ♂, ♀, V-26-18; 4 ♂, 4 ♀, V-25-19; ♂, V-22-21 (E. P. Van Duzee, C.A.S.); 2 ♂, ♀, IV-2-27 (C. L. Fox, C.A.S.); Fairfax, hills near, ♂, III-31-28 (F. H. Wymore, C.A.S.); ♂, III-31-28 (R. L. Usinger, C.I.S.). Mill Valley, ♂, IV-10-27 (R. L. Usinger, C.I.S.); ♀, IV-16-27 (F. H. Wymore, C.A.S.); Muir Woods, ♀, IV-23-? (C.A.S.); Mt. Tamalpias, ♀, V-7-50 (E. I. Schlinger, U.C.D.). Phoenix Lake, ♀, IV-23-40 (B. Brookman, C.I.S.). Ross, ♂, 3 ♀, V-30-32 (A. S. Harrison, C.I.S.); 2 ♀, IV-18-28 (E. P. Van Duzee, C.A.S.); ♂, 8 ♀, V-15-29 (F. H. Wymore, C.A.S.); ♂, IV-30-24 (E. R. Leach, C.A.S.).

Mendocino Co.: No locality, 3 ♂, 3 ♀, IV-19-19; 3 ♀, VI-7-21; ♂, VI-17-21; ♂, V-28-21 (E. R. Leach, C.A.S.). Hopland, ♀, V-18-22 (E. P. Van Duzee, C.A.S.). Laytonville, ♀, V-8-30 (F. H. Wymore, C.A.S.). Willits, 2 ♂, 3 ♀, VI-8-32 (F. H. Wymore, C.A.S.). Yorkville, 4 ♀, IV-1-24; 4 ♂, 2 ♀, IV-30-27 (E. P. Van Duzee, C.A.S.); 2 ♂, 3 ♀, V-8-35 (F. H. Wymore, C.A.S.).

Napa Co.: Samuel Springs, ♀, V-15-51 (E. I. Schlinger, C.I.S.); 2 ♂, V-15-51 (J. C. Hall, U.C.D.). Mt. George, ♂, VI-7-50 (J. N. Simons, C.I.S.). Lake Curry, 3 ♂, IV-13-50; 2 ♂, 2 ♀, IV-20-50; 25 ♂, 9 ♀ (J. N. Simons, C.I.S.). Monticello, ♂, V-20-50 (J. N. Simons, C.I.S.). Mt. St. Helena, ♀, V-7-30 (E. C. Van Dyke, C.A.S.). Pope Valley, ♂, V-8-30 (E. P. Van Duzee, C.A.S.). Sage Canyon, 2 ♂, ♀, III-15-32 (F. H. Wymore, C.A.S.). Wooden Grade, ♂, IV-3-31 (F. H. Wymore, C.A.S.). Wooden Valley, 3 ♂, 3 ♀, IV-12-31 (E. C. Van Dyke, C.A.S.); Calistoga, 2 ♀, IV-29-35 (F. H. Wymore, C.A.S.). Middle Creek, 2 ♂, VI-7-32 (F. H. Wymore, C.A.S.).

San Mateo Co.: Cascadero, ♂, IV-12-18 (E. P. Van Duzee, C.A.S.). Half Moon Bay, ♂, V-29-09 (J. A. Kusche, C.A.S.).

Santa Clara Co.: Stanford Univ., ♂, V-7-22 (F. R. Cole, C.A.S.). Palo Alto, 3 ♂, 8 ♀, V-26-22 (F. H. Wymore, C.A.S.); 3 ♀, same data (S. E. Flanders, C.I.S.). San Jose, ♂, IV-19-36 (E. S. Ross, C.A.S.). Almaden, 3 ♂, IV-14-27; ♀, IV-30-30 (F. H. Wymore, C.A.S.). San Jose, ♀, V-5-32 (E. A. Drews, C.I.S.). Los Gatos, ♂, V-30-21 (R. L. Usinger, C.I.S.). Santa Clara, ♂, VI-13-13 (E. O. Essig, C.I.S.). Mountain

View, 2 ♂, ♀, IV-12-40 (K. Frick, C.I.S.). Morgan Hill, ♂, ♀, V-23-22 (S. E. Flanders, C.I.S.). Alviso, ♂, IV-15-28 (E. P. Van Duzee, C.A.S.). Saratoga, ♀, V-5-27 (F. H. Wymore, C.A.S.).

Solano Co.: Green Valley, ♂, V-27-41 (B. Brookman, C.I.S.). Vacaville, ♂, 3 ♀, V-30-32 (A. S. Harrison, C.I.S.); ♂, III-27-36; ♀, III-28-48; ♂, ♀, IV-17-48; ♂, 3 ♀, V-2-48; 2 ♂, V-5-48; ♀, V-9-48; ♂, V-23-48; 6 ♂, 2 ♀, IV-6-49; 2 ♂, ♀, IV-11-49; 2 ♂, 2 ♀, IV-21-49; 2 ♂, IV-22-49; ♀, IV-26-49; ♂, ♀, IV-50; ♂, ♀, IV-9-50; 2 ♂, 3 ♀, IV-17-50; 4 ♂, 2 ♀, IV-20-50 (A. T. McClay, U.C.D.); 4 ♂, V-20-22; ♂, V-15-29; 9 ♂, 5 ♀, V-2-30; 9 ♂, 4 ♀, V-29-30; ♂, V-29-31 (F. H. Wymore, C.A.S.). Fairfield, ♂, IV-7-30 (F. H. Wymore, C.A.S.).

Sonoma Co.: Santa Rosa, ♂, V-26-48 (B. Stevens, U.C.D.); 2 ♀, IV-20-30 (E. G. Linsley, C.A.S.). Villa Grande, Russian R., ♂, VII-11-29 (F. H. Wymore, C.A.S.). Healdsburg, ♀, V-7-30 (F. H. Wymore, C.A.S.). Sonoma, ♂, IV-29-19 (M. C. Lane, C.A.S.).

Trinity Co.: Unknown locality, ♂, IV-18-18; ♂, 2 ♀, IV-23-28 (E. R. Leach, C.A.S.).

#### *Platypedia scotti* Davis

*Platypedia scotti* Davis, 1935, Jour. N.Y. Ent. Soc. 43:308-309. Holotype ♂, allotype ♀, and 8 paratypes, Kaweah, Tulare Co., Calif. Geographical range: California.

California records:

Tulare Co.: Sequoia National Park, 2,000'-5,000', 2 ♂, V-24-49; 3 ♀, V-27-27 (F. H. Wymore, C.A.S.). Mud Flat Creek, 2 ♂, V-14-22 (C.A.S.). Cal Hot Springs, 2 ♂, 2 ♀, VI-18-27 (E. R. Leach, C.A.S.). Kaweah, ♂, 2 ♀, VII-4-35 (F. T. Scott, C.A.S.).

#### *Platypedia usingeri* Simons

*Platypedia usingeri* Simons, 1953, Pan-Pacific Entom. 29:192. Holotype ♂, allotype ♀, Putah Canyon, Yolo-Solano Cos., Calif.

Geographical range: California.

California records:

Modoc Co.: Cedar Mt. Ridge, 4 ♂, ♀, VI-21-35 (F. H. Wymore, C.A.S.).

Solano Co.: Vacaville, ♂, VI-6-32 (A. S. Harrison, C.A.S.).

Yolo-Solano Cos.: Putah Canyon, 6 ♂, 2 ♀, IV-17-34; 3 ♂, IV-13-35; ♂, IV-17-35 (F. H. Wymore, C.A.S.).

#### *Platypedia similis* Davis

*Platypedia similis* Davis, 1920, Jour. N.Y. Ent. Soc., 128:112-113. Holotype ♂, allotype ♀, Sonoma Co., Calif.

Geographical range: California.

California records:

Alameda Co.: Livermore, ♀, V-12-40 (B. Brookman, C.I.S.). Niles Canyon, ♀, IV-15-29 (E. C. Zimmerman, C.A.S.). Oakland, hills back of, 2 ♂, ♀, V-1-30 (E. C. Zimmerman, C.A.S.).

Contra Costa Co.: Rodeo, ♀, V-9-30 (F. H. Wymore, C.A.S.). Mt. Diablo, ♂, IV-6-32 (F. H. Wymore, C.A.S.).

Humboldt Co.: Blocksburg, 2 ♂, ♀, V-30-35 (E. O. Essig, C.A.S.). Fort Seward, ♀, V-20-35 (H. J. Rayner, C.A.S.); 3 ♂, V-17-35; 2 ♀, V-22-35; 5 ♂, 3 ♀, V-24-35; ♀, V-31-35 (E. O. Essig, C.A.S.).

Marin Co.: Cypress Ridge, ♂, IV-19-30 (F. H. Wymore, C.A.S.). Fairfax, ♂, III-27-32 (C.A.S.); ♀, IV-12-25 (C. L. Fox, C.A.S.); ♂, 3 ♀, V-7-11; 2 ♀, V-11-19 (E. P. Van Duzee, C.A.S.). Kentfield, ♀, IV-30-35 (F. H. Wymore, C.A.S.). Lagunitas, ♂, III-9-13; ♂, III-29-08; ♀, IV-30-05; ♂, IV-7-07; 2 ♀, IV-23-16; 2 ♀, IV-26-24 (E. C. Van Dyke, C.A.S.). Mill Valley, ♂, IV-6-50; ♂, IV-25-50 (H. B. Leech, C.A.S.); ♂, ♀, IV-26-27 (F. H. Wymore, C.A.S.); ♀, VI-7-15; ♂, IV-21-24; 2 ♀, IV-18-25; 2 ♂, III-20-26 (E. P. Van Duzee, C.A.S.). Muir Woods, ♂, IV-4-09 (C.A.S.). Phoenix Lake, ♀, IV-26-28 (H. H. Kelfer, C.A.S.). Mt. Tamalpais, ♀, V-7-11 (E. C. Van Dyke, C.A.S.); 2 ♂, 2 ♀, IV-25-30 (F. H. Wymore, C.A.S.). Mendocino Co.: Booneville, Rancheria Creek, ♀, IV-30-49 (C. I. Smith, C.I.S.). Dimmack. Pk. Navarro R., ♀, V-22-36 (E. C. Van Dyke, C.A.S.). Laytonville, 3 ♂, ♀, V-17-30 (C.A.S.). Willits, ♂, V-8-30 (E. G. Linsley, C.A.S.). Yorkville, 2 ♂, 4 ♀, V-8-35; 3 ♂, 9 ♀, V-1-24, ♂, V-6-19; 3 ♂, 7 ♀, IV-30-27; 3 ♂, ♀, IV-24-28 (E. P. Van Duzee, C.A.S.).

Monterey Co.: Carmel, 2 ♂, IV-18-13 (L. S. Slevin, C.A.S.).

Napa Co.: Calistoga, 12 ♂, 14 ♀, IV-28-35 (F. H. Wymore, C.A.S.). Mt. St. Helena, ♂, V-31-15 (C.A.S.); ♂, VI-19-28 (E. G. Linsley, C.A.S.); ♂, V-10-51 (S. F. Bailey, U.C.D.). Napa, ♀, IV-10-23 (C.A.S.). Pope Valley, ♂, ♀, IV-19-32 (R. L. Usinger, C.I.S.). Wooden Grade, ♀, IV-3-31 (C.A.S.). Wooden Valley, ♂, 5 ♀, IV-12-31 (E. C. Van Dyke, C.A.S.).

Santa Clara Co.: San Jose, 8 ♂, 3 ♀, IV-30-27; 6 ♂, 4 ♀, V-27-27; 9 ♀, V-1-29; 4 ♀, V-18-33; ♂, V-9-35 (F. H. Wymore, C.A.S.).

Santa Cruz Co.: Aptos, ♂, V-8-32 (E. S. Ross, C.A.S.). Santa Cruz Mts., ♂, VI-15-22 (E. O. Essig, C.I.S.). Santa Cruz, ♀, VI-15-22 (F. H. Wymore, C.A.S.).

Sonoma Co.: Duncan Mills, ♂, VII-14-08 (C.A.S.). Healdsburg, ♀, VI-1-32 (C.A.S.). Kenwood Springs, ♂, IV-3-49 (C. I. Smith, C.I.S.). Santa Rosa, 2 ♀, IV-26-30 (F. H. Wymore, C.A.S.). Spring Mtn., ♂, IV-10-38 (F. H. Wymore, C.A.S.). Cazadero, 2 ♀, IV-12-18 (E. P. Van Duzee, C.A.S.).

Yolo-Solano Cos.: Putah Canyon, ♂, IV-10-49; ♂, IV-5-49 (R. C. Bechtel, U.C.D.); ♂, IV-21-49 (W. F. Ehrhardt, U.C.D.); ♂, VI-20-51 (R. M. Bohart, U.C.D.).

#### *Platypedia mariposa* Davis

*Platypedia mariposa* Davis, 1935, Jour. N.Y. Ent. Soc., 43:307. Holotype ♂, allotype ♀, and 1 ♂ and 2 ♀ paratypes, Mariposa Co., Calif.

Geographical range: California.

California records:

Riverside Co.: The Gavilan, ♂, V-17-51 (E. I. Schlinger, U.C.D.).

Shasta Co.: Redding, 25 ♂, 5 ♀, V-18-27; 9 ♂, 4 ♀, VI-14-32; 9 ♂, ♀, V-19-30; 5 ♂, 2 ♀, VI-23-35 (F. H. Wymore, C.A.S.).

Tulare Co.: Sequoia National Park, Ash Mt. Range, ♀, V-27-50 (E. I. Schlinger, U.C.D.); ♂, same data (R. C. Bechtel, U.C.D.).

#### *Platypedia laticapitata* Davis

*Platypedia laticapitata* Davis, 1921, Jour. N.Y.

Ent. Soc. 29:14-15. Holotype ♂, allotype ♀, Upland, San Bernardino Co., Calif.

Geographical range: California.

California records:

Los Angeles Co.: Tanbark Flat, ♂, VI-19-50 (J. C. Hall, U.C.D.); ♂, ♀, same data (J. W. MacSwain, C.I.S.); ♀, same data (A. T. McClay, U.C.D.); ♀, VI-20-50 (A. T. McClay, U.C.D.); ♀, same data (W. O. Marshall, U.C.D.); ♂, same data (J. W. MacSwain, C.I.S.); ♂, same data (M. J. Stebbins, U.C.D.); ♀, VI-21-50 (J. C. Hall, U.C.D.); ♂, VI-24-50 (J. W. MacSwain, C.I.S.); ♀, VI-23-50 (W. O. Marshall, U.C.D.); ♀, same data (P. D. Hurd, C.I.S.); ♀, VI-25-50 (A. T. McClay, U.C.D.); ♂, 2 ♀, same data (P. D. Hurd, C.I.S.); ♂, VI-27-50 (M. J. Stebbins, U.C.D.); ♀, VI-30-50 (P. D. Hurd, C.I.S.); ♂, VII-4-50 (H. N. Yokoyama, U.C.D.); ♂, same data (P. D. Hurd,

C.I.S.); ♀, VII-9-50 (M. J. Stebbins, U.C.D.); ♂, 4 ♀, VI-27-50 (F. X. Williams, C.A.S.). Puente Hills, ♂, V-9-26; ♂, V-10-26 (P. H. Timberlake, U.C.R.).

Riverside Co.: Palm Springs, ♂, IV-15-27 (F. H. Wymore, C.A.S.).

San Bernardino Co.: Upland, ♂, VI-22 (W. T. Davis, C.A.S.).

Ventura Co.: Santa Paula, 3 ♂, VI-13-26 (F. H. Wymore, C.A.S.).

#### *Platypedia aperta* Van Duzee

*Platypedia aperta* Van Duzee, 1915, Jour. N.Y. Ent. Soc. 23:29.

Geographical range: California.

California records:

Orange Co.: Camp Pendleton, 10 mi. N.E., ♀, IV-22-46 (P. H. Timberlake, U.C.R.).

Riverside Co.: Gavilan, 3 ♂, 2 ♀, V-31-37; ♂, V-29-46; ♀, V-2-38; ♂, V-12-50 (P. H. Timberlake, U.C.R.).

#### *Platypedia vanduzeei* Davis

*Platypedia vanduzeei* Davis, 1920, Jour. N.Y. Ent. Soc. 28:115-117. Holotype ♂, allotype ♀,

San Diego Co., Calif.

Geographical range: California, Nevada.

California records:

Los Angeles Co.: Eagle Rock Hills, 2 ♂, V-5-35 (P. H. Timberlake, U.C.R.). Westwood Hills, ♂, IV-19-36; ♂, V-18-26 (E. G. Linsley, C.I.S.). Whittier, 2 ♂, IV-27-31 (R. L. Usinger, C.I.S.); 2 ♂, V-5-30 (J. D. Maple, U.C.R.). Puente Hills, 3 ♂, V-9-26; 2 ♂, V-10-26 (P. H. Timberlake, U.C.R.).

Orange Co.: Brea, ♂, V-6-27 (F. H. Wymore, C.A.S.). Laguna Beach, ♂, IV-29-27 (F. H. Wymore, C.A.S.). Green River Camp, Lower Santa Ana Canyon, 2 ♀, V-9-33 (E. P. Van Duzee, C.A.S.).

San Diego Co.: Unknown locality, 11 ♂, 2 ♀, III-22-14; 2 ♂, IV-13-14; ♂, IV-26-14; 2 ♂, V-24-14 (E. P. Van Duzee, C.A.S.); ♂, V-5-90; 15 ♂, 2 ♀, V-5-91 (F. E. Blaisdell, C.A.S.).

#### *Platypedia barbata* Davis

*Platypedia barbata* Davis, 1920, Jour. N.Y. Ent. Soc., 128:120-121. Holotype ♂, allotype ♀,

San Luis Obispo, San Luis Obispo Co., Calif.

Geographical range: California.

## California records:

Monterey Co.: Paraiso Springs, ♂, V-27-27 (F. H. Wymore, C.A.S.).

San Luis Obispo Co.: San Luis Obispo, 3 ♂, V-5-31 (F. H. Wymore, C.A.S.).

*Platypedia sylvesteri* Simons

*Platypedia sylvesteri* Simons, 1953, Pan-Pacific Entom. 29:193-194. Holotype ♂, Panamint Mts., Inyo Co., Calif.

Geographical range: California.

California records: Only type material seen.

*Platypedia putnami occidentalis* Davis

*Platypedia putnami* var. *occidentalis* Davis, 1920, Jour. N.Y. Ent. Soc., 28:106. Holotype ♂, allotype ♀, Carrville, Trinity Co., Calif.

Geographical range: California.

California records:

Modoc Co.: Hackamore, 2 ♀, VI-3-31 (K. A. Salman, C.I.S.); ♂, 3 ♀, V-15-34 (C.I.S.); 2 ♀, V-27-34 (F. H. Wymore, C.A.S.).

Shasta Co.: Dunsmuir, ♂, V-19-31 (F. E. Todd, C.A.S.). Shasta Springs, 3 ♀, VI-18-20 (C. L. Fox, C.A.S.). ♀, VI-24-21 (F. H. Wymore, C.A.S.).

Siskiyou Co.: Unknown locality, 2 ♂, 4 ♀, VI-? (F. E. Blaisdell, C.A.S.).

Trinity Co.: Carrville, ♀, V-11-13; ♀, V-31-13; ♀, VI-1-13; ♀, VI-2-13; ♂, VI-10-13; ♀, VI-22-13; ♂, ♀, VI-24-13; 6 ♂, 6 ♀, V-18-34; ♂, 3 ♀, V-28-34; ♂, 6 ♀, V-30-34 (E. C. Van Dyke, C.A.S.); ♀, V-20-34 (T. H. G. Aitken, C.I.S.); 3 ♂, 2 ♀, V-15-34; ♂, 2 ♀, V-18-34; 4 ♂, 3 ♀, V-20-34; ♂, V-21-34; ♂, 2 ♀, V-23-34; 2 ♂, ♀, V-25-34; ♀, V-26-34; 3 ♂, 3 ♀, V-28-34 (F. H. Wymore, C.A.S.); 3 ♂, 2 ♀, no date, (F. H. Wymore, C.I.S.).

*Platypedia putnami putnami* (Uhler)

*Cicada putnami* Uhler, 1877, Bull. U.S. Geol. Geog. Surv. 3:455.

*Platypedia putnami* var. *lutea* Davis, 1920, Jour. N.Y. Ent. Soc., 28:106-108. Holotype ♂, Clear Creek, Colo.

Geographical range: Arizona, California, Colorado, Montana, Nevada, New Mexico, South Dakota, Utah, Wyoming.

California records:

Modoc Co.: Unknown locality, ♂, VII-28-31 (E. R. Leach, C.A.S.). Buck Creek, ♂, 2 ♀, VI-21-22 (C. L. Fox, C.A.S.). Davis Creek, 3 ♀, VII-11-22 (C. L. Fox, C.A.S.); ♂, VI-22-22 (F. H. Wymore, C.A.S.). Lake City, ♂, 3 ♀, VII-27-22 (C. L. Fox, C.A.S.).

Nevada Co.: Unknown locality, ♂, VII-28-31 (E. R. Leach, C.A.S.). Truckee, ♂, VI-20-27 (E. P. Van Duzee, C.A.S.).

*Platypedia mohavensis* Davis

*Platypedia mohavensis* Davis, 1920, Jour. N.Y. Ent. Soc., 28:100-101. Holotype ♂, allotype ♀, and 58 paratypes, Trumble Mt., Mohave Co., Ariz.

Geographical range: Arizona, California, Colorado, New Mexico, Utah.

California records:

San Bernardino Co.: Cajon Pass, 7 ♀, VI-24-49; 7 ♀, VI-25-49 (L. W. Isaak, U.C.D.); 4 ♂, 16 ♀, VI-25-49 (H. E. Cott, U.C.D.).

*Platypedia rufipes* Davis

*Platypedia rufipes* Davis, 1920, Jour. N.Y. Ent. Soc., 28:101-102. Holotype ♂, allotype ♀, and 5 ♀ paratypes, Los Angeles Co., Calif.

Geographical range: California.

California records:

Los Angeles Co.: Lancaster, 3 ♂, 2 ♀, V-19-37 (E. P. Van Duzee, C.A.S.).

Shasta Co.: Fall River Mills, 6 ♂, 2 ♀, VII-1932 (F. H. Wymore, C.A.S.).

Ventura Co.: Saticoy, ♂, VI-2-25 (F. H. Wymore, C.A.S.).

*Platypedia bernardoensis* Simons

*Platypedia rufipes* var. *bernardoensis* Davis, 1932, Jour. N.Y. Ent. Soc., 40:259-260.

Type locality, San Bernardino Mts., Calif. Geographical range: California.

California records: Only paratype material seen.

*Neoplatypedia ampliata* (Van Duzee)

*Platypedia ampliata* Van Duzee, 1915, Jour. N.Y. Ent. Soc., 23:29. Holotype ♀, and 1 ♀ paratype, Mary's River, Ore.

Geographical range: California, Oregon.

## California records:

Alameda Co.: Berkeley, 4 ♂, 2 ♀, VI-10-35; 2 ♂, 6 ♀, V-28-33 (F. H. Wymore, C.A.S.). 4 ♂, 2 ♀, V-28-33 (F. H. Wymore, C.I.S.); 2 ♂, V-1940 (C.I.S.). Tilden Park, ♂, V-10-50 (R. C. Bechtel, U.C.D.). Oakland, Hills back of, ♂, IV-18-30 (E. C. Zimmerman, C.I.S.).

Monterey Co.: Carmel, ♀, V-10-32 (L. S. Slevin, C.A.S.). Paraiso Springs, ♂, V-9-22 (L. S. Slevin, C.A.S.); ♂, IV-27-19 (E. P. Van Duzee, C.A.S.).

San Mateo Co.: Unknown locality, 2 ♂, 2 ♀, V-? (Koebele Coll., C.A.S.). Half Moon Bay, 2 ♂, V-29-09 (J. A. Kusche, C.A.S.).

Solano Co.: Cordelia, 17 ♂, ♀, V-15-27 (F. H. Wymore, C.A.S.).

*Neoplatypedia constricta* Davis

*Neoplatypedia constricta* Davis, 1920, Jour. N.Y. Ent. Soc., 28:123-124. Holotype ♂, allotype ♀, and 129 paratypes, Trumble Mt., Mohave Co., Ariz.

Geographical range: Arizona, California, Colorado, Idaho, Utah.

## California records:

San Bernardino Co.: Bear Lake, 2 ♂, V-13-19 (J. O. Martin, C.A.S.).

*Okanagodes gracilis* Davis

*Okanagodes gracilis* Davis, 1919, Jour. N.Y. Ent. Soc., 27:221-223. Holotype ♂, allotype ♀, Washington Co., Utah.

Geographical range: Arizona, California, Utah.

## California records:

Imperial Co.: San Felipe Creek, ♂, ♀, VII-2-33 (H. S. Gentry, C.A.S.).

Riverside Co.: Blythe, ♂, VIII-5-45 (J. W. MacSwain, C.I.S.). Cathedral City, 2 ♂, VII-16-50 (J. W. MacSwain, C.I.S.). Oasis, 2 ♂, ♀, VI-26-30 (F. H. Wymore, C.I.S.); 58 ♂, 21 ♀, same data (C.A.S.).

San Bernardino Co.: Baker, ♂, VI-24-30 (F. H. Wymore, C.I.S.), 27 ♂, 5 ♀, same data (C.A.S.); Baker, 7 mi. N., 2 ♂, 2 ♀, VI-24-30 (F. H. Wymore, C.A.S.).

*Clidoppleps vagans* Davis

*Clidoppleps vagans* Davis, 1925, Jour. N.Y. Ent. Soc., 28:48-49. Type ♂, southern Calif.

Geographical range: California.

## California records:

San Bernardino Co.: Victorville, 3 ♂, 2 ♀, VI-29-27 (F. H. Wymore, C.I.S.); 139 ♂, 21 ♀, same data (C.A.S.); 5 ♂, 2 ♀, VI-4-30 (F. H. Wymore, C.A.S.).

*Clidoppleps wrighti* Davis

*Clidoppleps wrighti* Davis, 1926, Jour. N.Y. Ent. Soc., 34:188-189. Holotype ♂ and allotype ♀, Upland, San Bernardino Co., Calif.

Geographical range: California.

## California records:

Los Angeles Co.: Tanbark Flat, 3 ♂, ♀, VI-24-50 (W. O. Marshall, U.C.D.); ♀, same data (L. W. Isaak, U.C.D.); 4 ♂, VI-21-50 (J. C. Hall, U.C.D.); ♀, same data (W. O. Marshall, U.C.D.); 2 ♀, same data (P. D. Hurd, C.I.S.); ♀, same data (J. W. MacSwain, C.I.S.); ♀, VI-19-50 (W. O. Marshall, U.C.D.); 7 ♂, VI-30-50 (P. D. Hurd, C.I.S.); ♂, VI-27-50 (J. C. Hall, U.C.D.); ♂, VII-13-50 (P. D. Hurd, C.I.S.).

San Bernardino Co.: Cucamonga, ♂, ♀, VII-3-25 (T. Craig, C.A.S.).

San Diego Co.: Unknown locality, ♂, VI-20-13 (E. P. Van Duzee, C.A.S.).

*Clidoppleps blaisdelli* (Uhler)

*Tibicen blaisdelli* Uhler, 1892, Trans. Md. Acad. Sci. 1:163. Type locality, San Diego, Calif.

Geographical range: California.

## California records:

San Diego Co.: Buckman Springs, ♀, VI-23-25 (C.I.S.).

*Clidoppleps beameri* Davis

*Clidoppleps beameri* Davis, 1936, Jour. N.Y. Ent. Soc., 44:116-117. Holotype ♂ and 7 paratypes, Cuyama Ranch, Calif.

Geographical range: California.

California records: No specimen seen.

*Clidoppleps distanti* Van Duzee

*Okanagana distanti* Van Duzee, 1914, Trans. San Diego Nat. Hist. 2:47. Type locality, San Diego Co., Calif.



Geographical range: California.

California records:

Calaveras Co.: Mokelumne Hill, ♂, VII-10-22 (F. H. Wymore, C.A.S.).

Los Angeles Co.: Eagle Rock, 4 ♂, VIII-8-16 (F. Grinnell, C.A.S.). Pomona, 2 ♂, ♀, VII-25-31; 4 ♂, VII-28-31 (C.A.S.).

Orange Co.: Santa Ana Canyon, 3 ♂, 2 ♀, VI-19-27 (F. H. Wymore, C.A.S.). Laguna, ♂, VI-2-39 (B. Brookman, C.A.S.).

Placer Co.: Newcastle, ♀, VII-16-35 (F. H. Wymore, C.A.S.).

Riverside Co.: Idyllwild, ♀, VII-19-36 (E. S. Ross, C.A.S.). Nr. Gilman Hot Springs, ♀, VI-10-41 (E. C. Van Dyke, C.A.S.). Palm Springs, ♂, VI-25-41 (E. C. Van Dyke, C.A.S.). Riverside, 9 ♂, 2 ♀, VII-1-27; 3 ♂, ♀, VII-4-27; 4 ♂, VII-5-27; ♂, VII-21-27 (F. H. Wymore, C.A.S.).

Sacramento Co.: Rio Linda, 2 ♂, 7 ♀, VI-23-31 (F. H. Wymore, C.A.S.). Sacramento, 10 ♂, ♀, VI-27-23 (F. H. Wymore, C.A.S.).

San Bernardino Co.: Cucamonga, ♂, VII-19-22 (T. Craig, C.A.S.). Upland, 16 ♂, VII-21-27 (F. H. Wymore, C.A.S.).

San Diego Co.: San Diego, 4 ♂, V-10-91 (F. E. Blaisdell, C.A.S.).

San Joaquin Co.: Clements, ♂, VII-10-34 (F. H. Wymore, C.A.S.).

Shasta Co.: Redding, ♂, VI-23-25; ♂, VII-7-20 (F. H. Wymore, C.A.S.).

Tulare Co.: Kaweah, ♂, VII-19-32 (F. T. Scott, C.A.S.). Sequoia Park, Camp Potishwa, ♀, VII-16-31 (E. C. Zimmerman, C.A.S.). Tulare, ♀, VII-14-32 (F. H. Wymore, C.A.S.).

Yolo-Solano Cos.: Putah Canyon, nr. Winters, 5 ♂, ♀, VII-3-32; 8 ♂, 5 ♀, VII-10-32 (R. L. Usinger, C.A.S.); ♂, VII-7-28, ♂, VIII-4-26; 4 ♂, 2 ♀, VII-20-28; 6 ♂, VIII-14-28; 7 ♂, VII-31-33 (F. H. Wymore, C.A.S.).

#### *Clidophleps tenuis* Davis

*Clidophleps tenuis* Davis, 1927, Jour. N.Y. Ent. Soc. 35:382-384. Holotype ♂, allotype ♀, and 7 paratypes, La Puerta Valley, San Diego, Calif.

Geographical range: California, Lower California.  
California records: No California material seen.

#### *Okanagana rubrovenosa* Davis

*Okanagana rubrovenosa* Davis, 1915, Jour. N.Y. Ent. Soc., 23:11. Holotype ♂ and 3 paratypes, Mariposa Co., Calif.

Geographical range: Arizona, California, Oregon, Utah.

California records:

Butte Co.: Yankee Hill, 18 ♂, ♀, VI-4-28; 6 ♂, VI-13-28 (H. B. Keifer, C.A.S.).

El Dorado Co.: Pollock Pines, ♂, VII-14-48 (K. Frick, C.I.S.); 2 ♂, same data (J. W. Mac Swain, C.I.S.); 2 ♂, same data (A. Bartel, C.I.S.).

Humboldt Co.: Fort Seward, ♀, V-31-35 (F. H. Wymore, C.A.S.).

Lake Co.: Hullville, 2 ♀, VI-14-17 (C. D. de B. Reynolds, C.A.S.); 2 ♂, 4 ♀, same data; ♂, 2 ♀, VI-19-17 (F. E. Blaisdell, C.A.S.). Kelseyville, 11 ♂, ♀, VI-11-32 (F. H. Wymore, C.A.S.). Middle Creek, 2 ♂, VI-7-32 (R. L. Usinger, C.I.S.); 2 ♂, ♀, VI-10-32 (F. H. Wymore, C.I.S.).

Mendocino Co.: Blue Lake, ♂, VII-30-49 (H. A. Hunt, U.C.D.); ♂, VI-8-32 (F. H. Wymore, C.A.S.).

Modoc Co.: Cedar Mt. Ridge, 5 ♂, ♀ (F. H. Wymore, C.A.S.).

Napa Co.: Unknown locality, ♂, VI-24-26 (E. R. Leach, C.A.S.).

Nevada Co.: Unknown locality, ♂, VIII-19-21 (E. R. Leach, C.A.S.).

Plumas Co.: Quincy, 4 mi. W., 5 ♂, VI-19-49 (H. A. Hunt, U.C.D.); 6 ♂, VI-20-49 (R. C. Bechtel, U.C.D.); 7 ♂, same data (E. I. Schlinger, U.C.D.); 6 ♂, VI-21-49 (W. E. Ehrhardt, U.C.D.); 6 ♂, same data (L. L. Jensen, C.I.S.); 4 ♂, same data (D. Cox, C.I.S.); 2 ♂, same data (F. Morishita, C.I.S.); 8 ♂, ♀, VI-22-49 (P. D. Hurd, C.I.S.). Keddie, ♂, VI-24-18 (F. M. Gaines, C.A.S.).

Riverside Co.: San Jacinto Mts., San Jacinto River, ♂, V-30-40 (F. Rindge, C.A.S.). Ribbonwood, San Jacinto Mts., ♂, VI-10-39 (E. G. Linsley, C.I.S.).

San Bernardino Co.: Lake Arrowhead, ♂, VII-5-32 (R. L. Usinger, C.I.S.).

Shasta Co.: Redding, ♀, VI-16-25 (C. C. Wilson, C.A.S.); 6 ♂, ♀, VI-23-15; 14 ♂, 2 ♀, VI-15-27; 2 ♂, 3 ♀, VI-14-32 (F. H. Wymore, C.A.S.); ♂, VI-15-27 (F. H. Wymore, C.I.S.).

Tuolumne Co.: Oakland Rec. Camp, ♂, VII-12-27 (F. H. Wymore, C.A.S.).

#### *Okanagana pallidula* Davis

*Okanagana pallidula* Davis, 1917, Jour. N.Y. Ent. Soc., 25:213. Holotype ♂ and 9 paratypes, Athlone, Merced Co., Calif.

Geographical range: California.

California records:

Colusa Co.: Arbuckle, ♂, VIII-1-28 (F. H. Wymore, C.A.S.). Williams, 7 ♂, VI-30-48 (W. W.



Middlekauff, C.I.S.). Colusa, 5 ♂, VIII-1-28, 6 ♂, ♀, VIII-10-28 (F. H. Wymore, C.A.S.).

Contra Costa: Brentwood, ♂, VI-4-40; ♂, VI-31-40 (G. L. Smith, C.I.S.); 12 ♂, ♀, VI-24-40; 26 ♂, VII-3-40 (C.I.S.).

Fresno Co.: Firebaugh, ♀, VIII-17-49 (R. F. Smith, C.I.S.); 2 ♂, VII-14-48 (V. M. Stern, C.I.S.).

Kern Co.: Bakersfield, ♂, VIII-24-35 (F. H. Wymore, C.A.S.). Kern Lake, 3 ♂, VII-8-38 (G. L. Smith, C.I.S.).

Merced Co.: Dos Palos, 2 ♂, VII-19-51 (J. C. Hall, U.C.D.); 5 ♂, ♀, VI-22-48 (D. W. Adams, C.I.S.); 2 ♂, VI-26-48 (C. A. Hanson, C.I.S.). Merced, ♂, VI-4-30 (R. L. Usinger, U.C.D.); ♂, IX-49 (M. Hitchcock, U.C.D.).

Riverside Co.: Hemet, ♀, VII-1-46 (J. W. Mac Swain, C.I.S.).

Sacramento Co.: Courtland, 5 ♂, ♀ (F. H. Wymore, C.A.S.). Sacramento, ♂, VI-1-21 (B. G. Thompson, C.A.S.).

San Joaquin Co.: Stockton, 7 ♂, VI-22-27 (F. H. Wymore, C.A.S.). Tracy, 3 ♂, VI-3-35 (F. H. Wymore, C.A.S.).

Solano Co.: Cordelia, 5 ♂, VI-27-28 (F. H. Wymore, C.A.S.). Davis, 2 ♂, VII-15-51 (E. R. Jaycox, U.C.D.); ♂, VII-26-50 (R. M. Bohart, U.C.D.); ♂, VI-2-32; ♂, VI-26-32; ♂, VI-29-32; 6 ♂, VII-3-32; 2 ♂, VII-12-32 (R. L. Usinger, C.I.S.); 7 ♂, VII-1937 (J. J. DuBois, C.I.S.); ♂, VI-18-27; ♀, VI-23-28; ♂, VII-18-32 (F. H. Wymore, C.I.S.); ♂, VI-24-26; 3 ♂, VII-5-26; 6 ♂, VII-9-26; 6 ♂, VII-26-26; ♂, VI-22-27; 7 ♂, VII-3-27; 4 ♂, VII-10-27; 3 ♂, VII-4-27; 3 ♂, VII-13-27; 11 ♂, VIII-15-27; ♂, VI-2-28; 5 ♂, VI-21-28; 10 ♂, VI-23-28; 6 ♂, VII-7-28; 16 ♂, VII-10-28; 6 ♂, VII-13-28; ♂, VII-19-28; 3 ♂, VII-23-28; 2 ♂, VIII-18-28; 2 ♂, VII-9-34 (F. H. Wymore, C.A.S.). Dixon, 10 ♂, 2 ♀, VI-12-28 (F. H. Wymore, C.A.S.). Rio Vista, ♂, VI-7-23; ♂, ♀, VI-2-28 (F. H. Wymore, C.A.S.). Suisun, 3 ♂, VII-14-26 (F. H. Wymore, C.A.S.).

Stanislaus Co.: Patterson, 5 ♂, VII-13-48 (W. W. Middlekauff, C.I.S.).

Sutter Co.: Unknown locality, 2 ♂, V-30-34 (E. R. Leach, C.A.S.). Marysville Buttes, 2 ♂, V-10-34 (E. R. Leach, C.A.S.). Yuba City, ♂, ♀, VII-31-26 (F. H. Wymore, C.A.S.).

Tulare Co.: Porterville, 2 ♂, IX-5-23 (E. R. Leach, C.A.S.).

Yolo Co.: Putah Canyon nr. Winters, 5 ♂, ♀, VII-10-32 (R. L. Usinger, C.I.S.). Winters, ♂, VII-14-28 (F. H. Wymore, C.A.S.); ♂, VI-27-51 (E. I. Schlinger, U.C.D.). Knight's Landing, 2 ♂, 2 ♀, VIII-13-26 (F. H. Wymore, C.A.S.).

### *Okanagana vanduzeei* Distant

*Okanagana vanduzeei* Distant, 1914, Ann. Mag. Nat. Hist. 14:165. Type locality, San Diego Co., Calif.

Geographical range: California, Idaho, Nevada, Oregon, Utah, Washington.

California records:

Alameda Co.: Alvarado, ♂, III-4-43 (E. W. Clark, C.I.S.). Berkeley, ♂, VI-27-25; 6 ♂, VI-10-30; 3 ♂, VI-4-33 (F. H. Wymore, C.A.S.). Oakland Hills, 2 ♂, VI-27-27 (R. L. Usinger, C.I.S.); ♂, ♀, VI-15-49 (L. L. Jensen, C.I.S.). Piedmont, ♂, VI-6-28; 9 ♂, ♀, VI-28-28 (F. H. Wymore, C.A.S.). Dublin, ♂, VI-16-41 (C.I.S.). Pleasanton, ♂, VII-1-32 (F. Rindge, C.I.S.); 7 ♂, VII-19-32 (C.I.S.).

Butte Co.: Oroville, ♂, VI-20-25 (H. H. Keifer, C.A.S.).

Calaveras Co.: Mokelumne Hills, ♂, VII-10-34 (F. H. Wymore, C.A.S.).

Colusa Co.: Colusa, ♂, VII-1-25 (F. H. Wymore, C.A.S.). Winters, 6 ♂, VIII-14-28 (F. H. Wymore, C.A.S.).

Contra Costa: Concord, 2 ♂, VII-26-22 (F. H. Wymore, C.A.S.). Crockett, 8 ♂, VII-7-30 (F. H. Wymore, C.A.S.). Orinda, 2 ♂, VI-28-28 (F. H. Wymore, C.A.S.). Pt. Richmond, 10 ♂, ♀, V-29-27 (F. H. Wymore, C.A.S.). Rodeo, ♂, VI-9-30 (F. H. Wymore, C.A.S.).

Del Norte Co.: Unknown locality, ♂, VII-2-24 (E. R. Leach, C.A.S.).

El Dorado Co.: Placerville, ♂, VII-10-48 (P. D. Hurd, C.I.S.).

Humboldt Co.: Fort Seward, ♂, VI-15-35 (E. O. Essig, C.A.S.); 3 ♂, same data (C.I.S.).

Inyo Co.: Independence, 7 ♂, 2 ♀, VI-20-30; 56 ♂, 11 ♀, VI-22-30 (F. H. Wymore, C.A.S.). Lone Pine, ♂, VI-10-37 (J. H. Mitchell, C.A.S.). Big Pine, ♂, VI-18-29 (R. L. Usinger, C.A.S.).

Kern Co.: Tejon Pass, 14 ♂, ♀, VI-23-27 (F. H. Wymore, C.A.S.).

Kings Co.: Kings River National Park., ♀, VI-28-48 (A. T. McClay, U.C.D.).

Lake Co.: Highland Springs, ♂, VI-10-32 (F. H. Wymore, C.A.S.).

Lassen Co.: Hallelujah Junction, 4 ♂, VII-4-49 (D. Cox, C.I.S.); 2 ♂, same data, (J. W. Mac Swain, C.I.S.); ♂, ♀, VI-27-49; ♂, ♀, VII-4-49 (A. S. Deal, C.I.S.); ♂, VI-27-49 (R. C. Bechtel, C.I.S.).

Los Angeles Co.: Clearwater, 3 ♂, VI-5-31 (F. H. Wymore, C.A.S.). Sycamore Grove, 8 ♂, VII-3-15 (G. Varley, C.A.S.). Tanbark Flat, ♂, VI-30-50; ♂, VII-2-50 (P. D. Hurd, C.I.S.).

Marin Co.: Eldridge, ♀, VI-19-10 (J. A. Kusche, C.A.S.).

Merced Co.: Garberville, 20 ♂, VI-22-35 (C.I.S.); Willits, ♀, VI-8-32 (F. H. Wymore, C.A.S.).

Merced Co.: Near Snelling, 3 ♂, VII-1933 (F. H. Wymore, C.A.S.).

Modoc Co.: Davis Creek, 2 ♂, 3 ♀, VII-16-22 (C. L. Fox, C.A.S.). 2 ♂, ♀, VI-22-27 (F. H. Wymore, C.A.S.). Hackamore, ♂, VII-21-48 (G. L. Smith, C.I.S.). Lake City, ♂, VII-9-46 (P. D. Hurd, C.I.S.); 2 ♂, VIII-4-22 (C. L. Fox, C.A.S.). Buck Creek, ♀, VII-20-22 (C. L. Fox, C.A.S.).

Monterey Co.: Soledad, ♂, VI-21-33 (F. H. Wymore, C.A.S.).

Orange Co.: Newport, ♂, ♀, VIII-24-27 (F. H. Wymore, C.A.S.). Newport Bay, 2 ♂, V-19-40 (P. D. Hurd, C.I.S.). Laguna Beach, 3 ♂, VII-10-27 (F. H. Wymore, C.A.S.). Santa Ana, 3 ♂, VI-9-27; 16 ♂, 2 ♀, VII-10-27; 2 ♂, VII-7-29 (F. H. Wymore, C.A.S.); ♂, VI-20-41 (P. D. Hurd, C.I.S.); ♂, VII-7-29 (C.I.S.).

Placer Co.: Newcastle, ♂, V-31-24 (F. H. Wymore, C.A.S.); Penryn, ♂, VII-30-29 (F. H. Wymore, C.A.S.).

Plumas Co.: Unknown locality, 3 ♂, 2 ♀, VII-6-32 (F. H. Wymore, C.A.S.); Crescent Mills, 3 ♂, VII-7-32 (R. L. Usinger, U.C.D.); 5 ♀, same data (C.I.S.). Quincy, 4 mi. W., ♂, VI-21-49 (E. I. Schlinger, U.C.D.); 3 ♂, VI-22-49 (H. A. Hunt, U.C.D.); 3 ♂, ♀, VI-22-49; ♂, VII-3-49 (R. C. Bechtel, U.C.D.); ♂, VI-29-49 (D. Cox, C.I.S.); 2 ♂, VI-21-49; ♂, ♀, VI-25-49 (P. H. Hurd, C.I.S.); ♂, VI-21-49 (J. W. MacSwain, C.I.S.); ♂, VI-22-49; 4 ♂, VI-24-49 (L. L. Jensen, C.I.S.).

Riverside Co.: Banning, ♂, VI-5-39 (C.I.S.); Riverside, ♂, VI-2-26 (P. H. Timberlake, U.C.R.); Tahquitz Cn., ♀, VI-30-28 (E. C. Van Dyke, C.A.S.); Gavilan, ♀, VI-10-35 (C. M. Dammers, C.I.S.). Vandevanter Flat, San Jacinto Mts., 3 ♂, VI-4-30 (F. Rindge, C.I.S.). Coahuila Creek, 2 ♂, V-22-27 (T. Craig, C.A.S.); Hemet, 19 ♂, VII-10-45 (R. F. Smith, C.I.S.); ♂, VII-20-46 (J. W. MacSwain, C.I.S.); Herkey Creek, San Jacinto Mts., 17 ♂, 3 ♀, VI-13-39 (E. S. Ross, C.A.S.); ♂, same data (E. G. Linsley, C.A.S.).

Sacramento Co.: Rio Linda, ♂, VI-23-37 (F. H. Wymore, C.A.S.), Sacramento, ♂, VII-21-29 (H. H. Keifer, C.A.S.); 7 ♂, VII-22-26; 18 ♂, VII-23-26; 19 ♂, VII-24-26; 3 ♂, VII-28-26; ♂, VIII-13-27; ♂, VII-17-28; ♂, ♀, IX-5-28 (F. H. Wymore, C.A.S.); 2 ♂, VI-10-51 (H. F. Robinson, U.C.D.). Courtland, ♂, V-28-31 (C.I.S.); 7 ♂, VII-1-29 (E. P. Van Duzee, C.A.S.); 3 ♂, VII-1-27 (R. L. Usinger, C.A.S.).

San Benito Co.: Hollister, ♂, VIII-1-16 (C.A.S.). San Bernardino Co.; Unknown locality, ♀, VI-7-27 (W. G. Wright, C.A.S.). S.E. Chino, 25 ♂, 7 ♀, VII-4-27 (F. H. Wymore, C.A.S.); 2 ♂, VII-4-27 (C.I.S.). San Bernardino, ♂, VI-8-01 (C.A.S.). Victorville, 17 ♂, ♀, VI-29-27 (F. H. Wymore, C.A.S.). Adelanto, 10 mi. S., ♂, V-28-32 (P. H. Timberlake, U.C.R.). Bear Valley, ♂, VIII-1937 (U.C.R.). Cajon Pass, ♂, ♀, VI-26-49 (L. W. Isaak, C.I.S.).

San Diego Co.: Unknown locality, 3 ♂, V-10-91 (F. E. Blaisdell, C.A.S.); ♂, VI-8-13; 3 ♂, VI-21-13; 2 ♂, VI-19-13; 3 ♂, V-22-14; 3 ♂, VII-22-14; 18 ♂, ♀, V-23-14 (E. P. Van Duzee, C.A.S.). Escondido, 2 ♂, VII-24-39 (E. Truesdell, C.I.S.). Buckman Springs, 2 ♂, VII-30-27 (F. H. Wymore, C.A.S.). Fall Brook, 3 ♂, VI-24-33 (F. H. Wymore, C.A.S.); San Diego, 6 ♂, VI-27-30 (F. H. Wymore, C.A.S.). Julian, 5 ♂, VI-21-35 (C. M. Dammers, C.A.S.).

San Joaquin Co.: Lodi, 23 ♂, 3 ♀, VI-22-27 (F. H. Wymore, C.A.S.).

San Luis Obispo Co.: Morro Bay, 3 ♂, ♀, VI-18-50 (E. I. Schlinger, U.C.D.).

San Mateo Co.: Burlingame, ♂, VIII-9-11 (J. A. Kusche, C.A.S.). Crystal Lakes, ♂, VI-25-16 (E. P. Van Duzee, C.A.S.). Unknown locality, ♀, VI-16-22 (C. L. Fox, C.A.S.). Princeton, 2 ♂, VIII-1-28 (F. H. Wymore, C.A.S.).

Santa Barbara Co.: Santa Barbara, ♀, VI-1925 (F. E. Wilson, U.C.R.).

Santa Clara Co.: Mt. Hamilton, 9 ♂, ♀, VI-20-22 (F. H. Wymore, C.A.S.). Mountain View, 2 ♂, VI-5-39 (K. Frick, C.A.S.). Saratoga, 2 ♂, VII-2-39 (K. Frick, C.A.S.).

Santa Cruz Co.: Santa Cruz, ♂, ♀, VI-21-22; ♂, V-16-26, 3 ♂, VI-18-26 (C.I.S.); ♀, VI-1-19 (E. P. Van Duzee, C.A.S.); 5 ♂, VI-22-22; 8 ♂, VI-21-26 (F. H. Wymore, C.A.S.); 3 ♂, ♀, VI-15-20 (J. P. Strohbeen, C.A.S.).

Shasta Co.: Hat Creek, ♂, VI-22-48 (L. G. Smith, C.I.S.).

Siskiyou Co.: Montague, 2 ♂, VII-11-14 (C. L. Fox, C.A.S.).

Solano Co.: Cordelia, ♂, ♀, VII-14-26 (F. H. Wymore, C.A.S.). Davis, ♂, VI-22-26; 28 ♂, 23 ♀, VI-18-27; ♀, VI-1928 (F. H. Wymore, C.A.S.); ♂, ♀, VI-9-50 (A. T. McClay, U.C.D.); ♂, VI-28-50; ♂, VI-29-50 (R. C. Bechtel, U.C.D.). Rio Vista, ♂, V-21-31 (C.I.S.). Summit Mix Cyn., ♂, VIII-3-50 (R. C. Bechtel, U.C.D.). Vacaville, ♂, VII-13-26 (F. H. Wymore, C.A.S.).

Sonoma Co.: Guerneville, ♂, VII-17-34 (F. H. Wymore, C.A.S.). Monte Rio, 20 ♂, VII-11-29 (F. H. Wymore, C.A.S.). Russian River, 9 ♂,

VII-3-14 (E. P. Van Duzee, C.A.S.). Sobre Vista, ♀, VII-1911 (J. A. Kusche, C.A.S.).

Sutter Co.: Yuba City, 3 ♂, VII-31-26; 2 ♂, VIII-5-26; ♂, V-26-32; 2 ♂, VI-2-32; 6 ♂, VIII-10-32 (F. H. Wymore, C.A.S.).

Trinity Co.: Unknown locality, ♂, VII-17-22; ♂, VII-26-28; 3 ♂, ♀, VI-19-24; ♂, VI-12-30 (E. R. Leach, C.A.S.).

Tulare Co.: Giant Forest, ♀, VII-19-28 (C. L. Fox, C.A.S.).

Ventura Co.: Oxnard, 6 ♂, VI-21-34 (F. H. Wymore, C.A.S.). Santa Paula, ♂, VI-12-21; 2 ♂, ♀, VI-6-26; ♂, VI-1-27; 11 ♂, ♀, VII-1923 (F. H. Wymore, C.A.S.). Saticoy, 19 ♂, 2 ♀, VI-11-26 (F. H. Wymore, C.A.S.); 7 ♂, ♀, VII-24-27 (T. Craig, C.A.S.). Sespe Canyon, ♂, VI-9-21 (F. H. Wymore, C.A.S.).

Yolo Co.: Clarksburg, 2 ♂, V-28-31 (C.I.S.). Unknown locality, ♂, VI-16-13 (F. H. Wymore, C.A.S.).

#### *Okanagana uncinata* Van Duzee

*Okanagana uncinata* Van Duzee, 1915, Jour. N.Y. Ent. Soc., 23:41-42. Holotype ♂, allotype ♀, San Juan Capistrano, Orange Co., Calif. Geographical range: California.

California records:

Ventura Co.: Santa Paula, ♀, V-31-26 (F. H. Wymore, C.A.S.).

#### *Okanagana striatipes* (Haldeman)

*Cicada striatipes* Haldeman, 1852, Stansbury's Exploration and Survey of the Great Salt Lake of Utah, p. 369. Type locality unknown.

Geographical range: Arizona, California, Oregon, Utah.

California records:

Los Angeles Co.: Hollywood, ♂, no date (E. S. Ross Coll., C.A.S.). Unknown locality, ♂, 2 ♀, IX-14-39 (H. H. Keifer, C.I.S.).

#### *Okanagana simulata* Davis

*Okanagana simulata* Davis, 1921, Jour. N.Y. Ent. Soc., 29:12-14. Holotype ♂, allotype ♀, Upland, San Bernardino Co., Calif.

Geographical range: California.

California records:

San Bernardino Co.: Upland, ♂, VII-21-27 (F. H. Wymore, C.A.S.).

#### *Okanagana utahensis* Davis

*Okanagana utahensis* Davis, 1919, Jour. N.Y. Ent. Soc., 27:216-218. Holotype ♂, Cedar Creek, Iron Co., Utah; allotype ♀, Stockton, Utah.

Geographical range: Arizona, California, Idaho, Nevada, Oregon, Utah, Washington.

California records:

Alpine Co.: Markleeville, 5 ♂, VI-25-30 (F. H. Wymore, C.A.S.).

Fresno Co.: Firebaugh, ♂, VIII-10-48; ♂, VIII-14-48 (V. M. Stern, C.I.S.).

Inyo Co.: Big Pine, ♂, VI-16-29 (E. P. Van Duzee, C.A.S.). Gray's Meadow, 3 ♂, VI-27-49 (H. E. Cott, U.C.D.). Independence, 5 ♂, ♀, VI-23-30 (F. H. Wymore, C.A.S.). Olancho Station, South of, 2 ♂, VI-23-30 (F. H. Wymore, C.A.S.).

Kern Co.: Bakersfield, ♂, VII-27-37 (F. H. Wymore, C.A.S.).

Kings Co.: Unknown locality, ♂, VI-1935 (F. H. Wymore, C.A.S.). Tulare Lake, 8 ♂, VI-1931 (F. H. Wymore, C.A.S.).

Lassen Co.: Doyle, 5 ♂, ♀, VII-1930 (F. H. Wymore, C.A.S.). Hallelujah Junction, 2 ♂, ♀, VI-27-49; 4 ♂, 3 ♀, VII-4-49 (J. W. MacSwain, C.I.S.); 4 ♂, VI-27-49; ♂, VII-4-49 (P. D. Hurd, C.I.S.); ♂, VI-27-49; 4 ♂, ♀, VII-4-49 (D. Cox, C.I.S.); 3 ♂, VI-27-49; 3 ♀, VII-4-49 (F. Morishita, C.I.S.); 4 ♂, 2 ♀, VI-27-49; 3 ♂, 2 ♀, VII-4-49 (R. L. Sisson, C.I.S.); 2 ♀, 2 ♂, VI-27-49 (C. I. Smith, C.I.S.); 7 ♂, ♀, VII-4-49 (J. N. Simons, C.I.S.); 2 ♂, same data (J. E. Gillaspay, C.I.S.), 8 ♂, VI-27-49 (E. I. Schlinger, U.C.D.); 5 ♂, ♀, same data (W. E. Ehrhardt, U.C.D.); 4 ♂, same data (A. S. Deal, U.C.D.); 6 ♂, same data (H. A. Hunt, U.C.D.); 4 ♂, same data (R. C. Bechtel, U.C.D.); 4 ♂, ♀, same data (L. W. Isaak, U.C.D.).

Los Angeles Co.: Lancaster, ♂, VI-1932 (F. H. Wymore, C.A.S.).

Merced Co.: Dos Palos, ♂, VI-30-48 (D. W. Adams, C.I.S.); ♂, VIII-14-48 (V. M. Stern, C.I.S.).

Modoc Co.: Lake City, ♂, VII-27-22 (C. L. Fox, C.A.S.).

Mono Co.: Topaz Lake, 2 ♂, VI-26-51; ♂, VIII-12-51 (T. R. Haig, U.C.D.).

San Bernardino Co.: Adelanto, 11 mi. S. at Oro Grande Wash, ♀, IV-26-46 (P. H. Timberlake, U.C.R.). Bear Valley, ♂, VIII-1937 (Timberlake, U.C.R.). Victorville, 2 ♂, VII-27-27 (F. H. Wymore, C.A.S.).

San Joaquin Co.: Tracy, ♂, VII-27-37 (F. H. Wymore, C.A.S.).

Solano Co.: Davis, 3 ♂, VI-12-35; ♂, VI-24-33 (F. H. Wymore, C.A.S.).

*Okanagana occidentalis* (Walker)

*Cicada occidentalis* Walker, 1866, Lord's Naturalist in Vancouver Island and British Columbia 2:339. Type locality, probably Colville Valley, Wash.

Geographical range: California, Idaho, Montana, Nevada, Oregon, Utah, Washington.

California records:

El Dorado Co.: Echo Lake, 2 ♂, VII-24-32 (F. H. Wymore, C.A.S.); Tamarack Lake, ♂, VII-24-32 (F. H. Wymore, C.A.S.).

*Okanagana villosa* Davis

*Okanagana villosa* Davis, 1941, Jour. N.Y. Ent. Soc., 49:95. Holotype ♂, Cloud's Rest, Yosemite National Park, Calif.

Geographical range: California.

California records:

Holotype ♂ only specimen seen.

*Okanagana nigriviridis* Davis

*Okanagana nigriviridis* Davis, 1921, Jour. N.Y. Ent. Soc., 29:9-11. Holotype ♂, allotype ♀, Upland, San Bernardino Co., Calif.

Geographical range: California.

California records:

Los Angeles Co.: Santa Monica, Topanga Cyn., ♀, VII-4-32 (M. Silvernall, C.I.S.).

San Diego Co.: Nr. Willows, ♂, VII-30-27 (F. H. Wymore, C.A.S.).

*Okanagana arctostaphylae* Van Duzee

*Okanagana arctostaphylae* Van Duzee, 1915, Jour. N.Y. Ent. Soc., 23:34-35. Holotype ♂, allotype ♀, Mokelumne Hills, Calaveras Co., Calif.

Geographical range: California.

California records:

Holotype and allotype in C.A.S. only specimens seen.

*Okanagana opacipennis* Davis

*Okanagana opacipennis* Davis, 1926, Jour. N.Y. Ent. Soc., 34:186-187. Holotype ♂, allotype ♀, Buckman Springs, San Diego Co., Calif.

Geographical range: California.

California records:

Riverside Co.: Tanbark Flat, ♀, VI-29-50 (J. W. MacSwain, C.I.S.).

*Okanagana alibasilis* Wymore

*Okanagana alibasilis* Wymore, 1934, Pan-Pacific Entom., 10:167. Holotype ♂, allotype ♀, and 37 paratypes, East Bay Hills, Alameda Co., Calif.

Geographical range: California.

California records:

Alameda Co.: Berkeley, 3 ♂, VII-4-40 (B. Brookman, T. Aitken, C.I.S.); ♂, VI-17-30 (C.I.S.); 4 ♂, VI-27-25; ♂, VI-23-33 (F. H. Wymore, C.A.S.). Livermore, ♂, V-12-40 (B. Brookman, C.I.S.). Niles Canyon, ♂, VII-2-35 (C.I.S.). Oakland, ♀, VI-6-32 (F. H. Wymore, C.A.S.).

Contra Costa Co.: Martinez, ♂, VI-29-30 (E. P. Van Duzee, C.A.S.). Mt. Diablo, ♂, VI-27-31 (R. L. Usinger, C.I.S.); ♂, VII-4-30 (C.I.S.); 2 ♂, VI-15-32 (F. H. Wymore, C.A.S.).

Lake Co.: Highland Springs, ♂, VI-10-32 (F. H. Wymore, C.A.S.).

Napa Co.: Unknown locality, ♂, VI-26-26 (E. R. Leach, C.A.S.).

Santa Clara Co.: Almaden, 2 ♂, V-22-32 (F. H. Wymore, C.A.S.). Alum Rock Park, ♂, VI-19-37 (E. S. Ross, C.A.S.). Santa Cruz Mts., 4 ♂, VI-15-22 (S. E. Flanders, C.I.S.); ♂, VI-15-22 (E. O. Essig, C.I.S.).

*Okanagana vandykei* Van Duzee

*Okanagana vandykei* Van Duzee, 1915, Jour. N.Y. Ent. Soc., 23:38-39. Type locality, Carrville, Trinity Co., Calif. Paratypes from Nash Mine, Trinity Co., Calif., and Plumas Co., Calif.

Geographical range: California, Oregon.

California records:

El Dorado Co.: Kyburz, ♀, VII-2-29 (F. H. Wymore, C.A.S.). Riverton, ♂, VII-18-31 (E. C. Van Dyke, C.A.S.).

Plumas Co.: Keddie, ♀, VI-28-41 (F. H. Rindge, C.I.S.). Meadow Valley, ♂, VII-15-39 (H. T. Reynolds); ♀, VI-27-24 (A. S. Hassan, C.I.S.); 2 ♂, VI-3-24; ♂, ♀, VI-12-24 (E. C. Van Dyke, C.A.S.).

Shasta Co.: Unknown locality, ♀, VII-5-21 (J. A. Kusche, C.A.S.).

*Okanagana davisi* Simons

*Okanagana davisi* Simons, 1953, Pan-Pacific Entom., 29:191-192. Holotype ♂, Honeydew, Mattole River, Humboldt Co., Calif.

Geographical range: California.

California records:

Humboldt Co.: Fort Seward, 2 ♂, VI-16-36 (E. O. Essig, C.A.S.).

Mendocino Co.: near Guerneville, ♂, VII-17-34 (F. H. Wymore, C.A.S.).

Trinity Co.: Unknown locality, ♂, VI-28-23 (E. R. Leach, C.A.S.).

*Okanagana canescens* Van Duzee

*Okanagana canescens* Van Duzee, 1915, Jour. N.Y. Ent. Soc., 23:26. Holotype ♂, Duncan Mills, Sonoma Co., Calif.

Geographical range: California.

California records:

Alameda Co.: Oakland, ♂, VII-29 (C.I.S.); ♂, VI-7-30 (E. C. Zimmerman, C.A.S.). Berkeley, ♂, VI-10-35 (F. H. Wymore, C.A.S.).

Mendocino Co.: Garberville, ♂, VIII-4-35 (F. H. Wymore, C.A.S.).

Santa Cruz Co.: Aptos, ♂, VII-10-32 (F. H. Wymore, C.A.S.).

Sonoma Co.: Duncan Mills, ♂, VII-14-08 (F. H. Wymore, C.A.S.). Guerneville, ♂, VIII-8-31 (F. H. Wymore, C.A.S.). Monte Rio, ♀, VII-6-23. Santa Rosa, ♂, ♀, V-28-27 (F. H. Wymore, C.A.S.).

*Okanagana tristis* Van Duzee

*Okanagana tristis* Van Duzee, 1915, Jour. N.Y. Ent. Soc., 23:26. Holotype ♂, allotype ♀, and 1 paratype, Shasta Retreat, Siskiyou Co., Calif.

Geographical range: California, Oregon, Washington.

California records:

Alpine Co.: Markleeville, ♂, VI-25-30 (F. H. Wymore, C.A.S.).

Contra Costa Co.: Mt. Diablo, ♂, VI-10-52 (E. C. Van Dyke, C.A.S.). 2 ♂, VI-14-43 (Timberlake, U.C.R.). Pinehurst, ♀, VII-12-30 (M. Kelley, C.I.S.).

El Dorado Co.: Camino, 5 ♂, ♀, VII-23-28 (F. H. Wymore, C.A.S.); ♂, same data (C.I.S.). Riverton, 2 ♂, ♀, VII-26-28 (F. H. Wymore, C.A.S.). Snowline Camp, ♀, VII-11-48 (P. D. Hurd, C.I.S.); 3 ♀, VII-19-48 (J. W. MacSwain,

C.I.S.). Placerville, 2 ♂, VII-1929 (E. C. Zimmerman, C.A.S.).

Lake Co.: Bartlett Springs, ♂, ♀, VII-1930 (F. H. Wymore, C.A.S.). Cobb Valley, 2 ♂, VI-9-32 (F. H. Wymore, C.A.S.). Kelseyville, ♂, VII-9-32 (R. L. Usinger, C.I.S.). Middletown, ♀, VII-22-34 (E. P. Van Duzee, C.A.S.).

Lassen Co.: Hallelujah Junction, ♂, VII-4-49 (H. A. Hunt, U.C.D.).

Los Angeles Co.: Unknown locality, ♂, VII-1934 (E. S. Ross, C.A.S.).

Mendocino Co.: Unknown locality, ♀, VII-20-23 (E. R. Leach, C.A.S.).

Modoc Co.: Buck Creek, 3 ♀, VII-21-22 (C.A.S.). Davis Creek, ♀, VII-16-22 (C.A.S.).

Napa Co.: Sage Canyon, 2 ♂, VI-4-36 (R. M. Bohart, C.A.S.); ♂, VII-24-36 (J. J. DuBois, C.A.S.). Samuel Springs, ♂, V-31-51 (J. C. Hall, U.C.D.).

Nevada Co.: Unknown locality, ♂, VII-11-13 (E. O. Essig, C.A.S.). Dutch Flat, ♀, VIII-25-48 (R. F. Smith, C.I.S.).

Plumas Co.: Caribou, ♂, VI-10-31 (F. H. Wymore, C.A.S.). Chester, ♀, VI-11-31 (F. H. Wymore, C.A.S.). Crescent Mills, 8 ♂, VII-8-32 (F. H. Wymore, C.A.S.); ♀, same data (C.I.S.); ♂, ♀, VII-7-32 (R. L. Usinger, C.I.S.).

Lake Almanor, ♂, VII-10-46 (R. F. Smith, P. D. Hurd, C.I.S.). Meadow Valley, 5 ♂, ♀, VI-19-24 (E. C. Van Dyke, C.A.S.). Quincy, 2 ♂, VI-21-49 (W. E. Ehrhardt, U.C.D.). Quincy, 4 mi. W., ♂, VI-26-49 (F. Morishita, C.I.S.).

Santa Barbara Co.: Lompoc, ♂, VII-13-36 (A. T. McClug, C.A.S.).

Shasta Co.: Unknown locality, 2 ♀, VII-5-21 (J. A. Kusche, C.A.S.). Hat Creek, 6 ♂, VII-1-48 (L. G. Smith, C.I.S.); ♀, VI-25-52 (G. Pronin, C.A.S.). Lower McCloud River, ♂, VIII-29-25 (T. Craig, C.A.S.). Shasta Springs, ♂, VI-6-20; ♂, VI-22-20 (C. L. Fox, C.A.S.).

Siskiyou Co.: Siskiyou Summit, 2 ♂, VI-29-32 (E. S. Ross, C.A.S.).

Sonoma Co.: Guerneville, ♂, VII-14-29 (F. H. Wymore, C.A.S.). Santa Rosa, ♂, VII-5-34 (F. H. Wymore, C.A.S.).

Tehama Co.: Tower House, ♂, VI-1-50 (H. E. Cott, U.C.D.).

Trinity Co.: Unknown locality, ♂, VI-19-24 (E. R. Leach, C.A.S.). Carrville, ♂, VI-17-34 (J. W. Seapy, C.A.S.); ♂, VI-11-34 (C.A.S.); 2 ♂, 2 ♀, V-30-34 (F. R. Platt, C.A.S.); 4 ♂, ♀, VI-17-34 (E. C. Van Dyke, C.A.S.). Coffee Creek, ♀, VII-30-31 (R. L. Usinger, C.I.S.). Nash Mine, ♀, VI-28-13 (E. C. Van Dyke, C.A.S.).

Tulare Co.: Kaweah, ♀, VIII-15-35 (F. H. Wymore, C.A.S.).

Tuolumne Co.: near Mather, ♂, VIII-3-20 (E. C. Zimmerman, C.A.S.). Pinecrest, ♂, VIII-4-48 (P. D. Hurd, J. W. MacSwain, C.I.S.). Yosemite, ♀, VII-17-46 (R. L. Usinger, C.A.S.).

*Okanagana tristis* race *rubrobasilis* Davis

*Okanagana tristis* race *rubrobasilis* Davis, 1926, Jour. N.Y. Ent. Soc., 34:184-186. Holotype ♂, Nellie, San Diego Co., Calif.; allotype ♀, Upland, San Bernardino Co., Calif.

Geographical range: California, Nevada.

California records:

San Bernardino Co.: Upland, ♀, VII-1-20 (E. P. Hewlett, C.A.S.).

*Okanagana arboraria* Wymore

*Okanagana arboraria* Wymore, 1934. Pan-Pacific Entom. 10:166. Holotype ♂, allotype ♀, and 59 paratypes, lower end of Sacramento River around Courtland, Sacramento Co., Calif.

Geographical range: California.

California records:

Sacramento Co.: Courtland, 2 ♂, VII-15-26; ♂, VIII-21-27 (F. H. Wymore, paratypes, C.I.S.). Brannan Island, 2 ♂, VII-15-26 (F. H. Wymore, C.I.S.).

*Okanagana napa* Davis

*Okanagana napa* Davis, 1919, Jour. N.Y. Ent. Soc., 27:195. Holotype ♂, Napa Co., Calif.

Geographical range: California.

California records:

Mendocino Co.: Unknown locality, ♂, VII-20-23 (E. R. Leach, C.A.S.).

*Okanagana aurora* Davis

*Okanagana aurora* Davis, 1936, Jour. N.Y. Ent. Soc., 44:107-109. Holotype ♂, allotype ♀, and 1 paratype, Mammoth, Mono Co., Calif.

Geographical range: California, Nevada.

California records:

Fresno Co.: Monmouth, 4 ♂, ♀, VII-18-27 (H. M. Jeaunon, C.A.S.).

Inyo Co.: Gray's Meadow, ♀, VI-27-49 (H. E. Cott, U.C.D.). N. of Bishop, 2 ♂, VI-22-30 (C.A.S.).

Kern Co.: Kern River County Park, ♂, 3 ♀, VI-28-49 (L. W. Isaak, U.C.D.).

Mono Co.: McGee Creek, ♂, ♀, VI-28-49 (H. E. Cott, U.C.D.).

*Okanagana magnifica* Davis

*Okanagana magnifica* Davis, 1919, Jour. N.Y. Ent. Soc., 27:189-191. Holotype ♂, allotype ♀, Jemez Springs, N. Mex.

Geographical range: Arizona, California, New Mexico.

California records:

Humboldt Co.: Klamath River, ♂, V-8-16 (E. Mopping, C.A.S.).

Shasta Co.: Redding, ♂, VI-15-26 (W. B. Herms, C.A.S.).

Siskiyou Co.: Yreka, 16 ♂, 15 ♀, VII-9-25 (F. E. Blaisdell, C.A.S.).

Trinity Co.: Trinity Alps, ♀, VI-12-40 (C.I.S.).

*Okanagana sperata* Van Duzee

*Okanagana sperata* Van Duzee, 1935, Pan-Pacific Entom. 11:25. Holotype ♂, Carrville, Trinity Co., Calif.

Geographical range: California.

California records:

Holotype ♂ in C.A.S. only specimen seen.

*Okanagana nigrodorsata* Davis

*Okanagana nigrodorsata* Davis, 1923, Jour. N.Y. Ent. Soc., 31:13-14. Holotype ♂, Mt. Hough, Plumas Co., Calif.; allotype ♀, Davis Creek, Modoc Co., Calif.

Geographical range: California.

California records:

Alpine Co.: Hope Valley, ♀, VII-18-48 (J. W. MacSwain, C.I.S.); ♀, same data (R. C. Bynum, C.I.S.).

El Dorado Co.: Echo Lake, ♂, VII-24-32 (R. L. Usinger, C.I.S.); ♂, ♀, VII-15-34 (C.I.S.). Fallen Leaf Lake, ♂, VII-25-32 (C.I.S.). Myers, ♂, VI-14-27 (F. H. Wymore, C.A.S.). Pyramid R.S., ♂, VII-12-48 (L. W. Quate, C.I.S.).

Fresno Co.: Huntington Lake, ♀, VII-6-19 (F. O. Clark, C.A.S.). Monmouth, ♂, VI-27-30 (F. H. Wymore, C.A.S.). Shaver Lake, ♀, VII-1-35 (F. F. Honeycutt, C.A.S.).

Inyo Co.: Unknown locality, ♂, VII-4-34 (F. H. Wymore, C.A.S.).

Lassen Co.: Unknown locality, ♀, VII-4-31 (F. H. Wymore, C.A.S.).

Nevada Co.: Truckee, ♂, VI-19-27 (E. P. Van Duzee, C.A.S.).

Plumas Co.: Meadow Valley, ♂, VI-17-24 (E. C. Van Dyke, C.A.S.). Westwood, 3 ♂, 2 ♀, VI-15-27 (F. H. Wymore, C.A.S.); ♂, same data (C.I.S.).

Shasta Co.: Unknown locality, ♀, VII-23-21 (J. A. Kusche, C.A.S.). Burney, ♀, VI-9-41 (P. D. Hurd, C.I.S.). Kings Creek Meadow, ♂, VII-2-47 (T. O. Thatcher, C.I.S.). Fall River Mills, 2 ♂, VII-1932 (F. H. Wymore, C.A.S.).

Sierra Co.: Gold Lake, 3 ♀, VII-20-21 (C. L. Fox, C.A.S.).

Trinity Co.: Trinity Alps, ♂, VI-12-40 (C.I.S.).

Tuolumne Co.: White Wolf, Yosemite, 2 ♀, VII-11-29 (R. L. Usinger, C.I.S.). Yosemite, ♀, VII-1-21 (E. C. Van Dyke, C.A.S.); ♀, VII-28-38 (C.I.S.).

### *Okanagana cruentifera* (Uhler)

*Tibicen cruentifera* Uhler, 1892, Trans. Md. Acad. Sci., 1:161. Type locality, Reno, Nevada.

Geographical range: California, Nevada, Utah. California records:

Fresno Co.: Big Pines, ♂, ♀, VII-7-35 (C. E. Norland, U.C.D.).

Kern Co.: Walker Pass, 2 ♀, VI-27-48; 4 ♂, 7 ♀, VI-27-49 (L. W. Isaak, U.C.D.); 3 ♂, ♀, VI-25-45; ♀, VI-25-46; ♀, VI-25-49 (H. E. Cott, U.C.D.).

Lassen Co.: Hallelujah Junction, 3 ♂, 2 ♀, VI-27-49; 3 ♂, ♀, VII-13-49 (E. I. Schlinger, U.C.D.); ♂, VI-27-49; 8 ♂, 3 ♀, VII-4-49 (R. C. Bechtel, U.C.D.); 2 ♂, VII-4-49 (W. R. Schrader, U.C.D.); ♂, VII-4-49 (L. W. Isaak, U.C.D.); ♂, VII-4-49 (A. S. Deal, U.C.D.); 2 ♂, ♀, VI-27-49 (C. I. Smith, C.I.S.); 3 ♂, 5 ♀, VII-4-49 (J. W. MacSwain, C.I.S.); 3 ♂, 3 ♀, VII-4-49 (D. Cox, C.I.S.); ♂, VII-4-49 (J. N. Simons, C.I.S.); ♂, VII-7-49 (P. D. Hurd, C.I.S.). Honey Lake, ♂, VI-10-34 (J. T. Hewell, C.A.S.).

Los Angeles Co.: Big Rock Canyon, 6 ♂, 3 ♀ (VI-22-49, U.C.D.); ♀, VI-22-48; 3 ♂, 5 ♀, VI-22-49 (H. E. Cott, C.A.S.).

Mono Co.: McGee Creek, ♂, VI-29-49 (L. W. Isaak, U.C.D.). Coleville, ♂, VI-24-30 (C.A.S.).

### *Okanagana ornata* Van Duzee

*Okanagana ornata* Van Duzee, 1915, Jour. N.Y. Ent. Soc., 23:33. Holotype ♀, Sonoma Co.,

Calif.; allotype ♂, Upper Soda Springs, Siskiyou Co., Calif.

Geographical range: California, Nevada, Oregon. California records:

Lassen Co.: Hallelujah Junction, ♂, ♀, VI-27-49 (E. I. Schlinger, U.C.D.); ♂, VI-27-49 (C.I.S.).

Modoc Co.: Unknown locality, ♂, VII-28-31 (E. R. Leach, C.A.S.). Davis Creek, ♀, VII-5-22 (W. T. Davis, C.I.S.); 3 ♂, 2 ♀, same data (C.A.S.). 2 ♂, 5 ♀, VI-11-22 (C. L. Fox, C.A.S.); ♂, ♀, VII-2-22 (F. H. Wymore, C.A.S.). Buck Creek, 3 ♂, 3 ♀, VI-21-22; ♂, ♀, VI-27-22 (C. L. Fox, C.A.S.). Fandang Pass, ♂, ♀, VII-6-50 (H. E. Cott, U.C.D.). Lake City, ♀, VI-28-22 (C. L. Fox, C.A.S.).

Plumas Co.: Butt Lake, ♂, VII-11-31 (F. H. Wymore, C.A.S.). Caribou, ♂, VI-10-31; 2 ♂, VI-6-32 (F. H. Wymore, C.I.S.). Crescent Mills, ♀, VII-7-32 (R. L. Usinger, C.A.S.). Meadow Valley, ♂, 4 ♀, VI-19-24 (E. C. Van Dyke, C.A.S.). Quincy, ♂, VI-25-49 (D. Cox, C.I.S.).

Trinity Co.: Carrville, 3 ♂, VI-9-34 (F. H. Wymore, C.A.S.).

### *Okanagana venusta* Davis

*Okanagana venusta* Davis, 1935, Jour. N.Y. Ent. Soc., 43:299. Holotype ♂, allotype ♀, and 5 paratypes, Greenhorn Mt., Kern Co., Calif.

Geographical range: California.

California records:

No specimens seen.

### *Okanagana mariposa* Davis

*Okanagana mariposa* Davis, 1915, Jour. N.Y. Ent. Soc., 23:12. Holotype ♂, Mariposa Co., Calif.

Geographical range: Arizona, California, Utah. California records:

Butte Co.: Oroville, 54 ♂, 15 ♀, VI-15-28 (H. H. Keifer, C.A.S.). Paynes Creek, 30 mi. E. Red Bluff, 44 ♂, 12 ♀, VI-15-27 (F. H. Wymore, C.A.S.).

Contra Costa Co.: Mt. Diablo, 4 ♂, VI-12-32; 2 ♂, VI-16-32 (E. P. Van Duzee, C.A.S.).

Lake Co.: Elk Mt., 2 ♂, VI-7-32 (F. H. Wymore). Highland Spring, ♂, VI-10-32 (F. H. Wymore, C.A.S.). Hullville, 2 ♂, ♀, VI-19-13 (F. E. Blaisdell, C.A.S.). Kelseyville, ♂, VI-9-32 (R. L. Usinger, C.I.S.).

Los Angeles Co.: Alhambra, ♂, ♀, VII-6-20 (V. Duran, C.A.S.).



Modoc Co.: Cedar Mt. Ridge, ♂, VI-21-35 (F. H. Wymore, C.A.S.).

San Bernardino Co.: Daly Canyon, ♂, VII-5-32 (F. H. Wymore, C.A.S.).

Tehama Co.: Paynes Creek, 3 ♂, ♀, VI-15-27 (F. H. Wymore, C.I.S.).

Trinity Co.: Carrville, ♀, VI-7-34; ♂, VI-8-34 (T. H. G. Aitken, C.I.S.).

Tulare Co.: Kaweah, ♂, ♀, VII-14-32 (F. H. Wymore, C.A.S.).

#### *Okanagana ferrugomaculata* Davis

*Okanagana ferrugomaculata* Davis, 1936, Jour. N.Y. Ent. Soc., 44:110-111. Holotype ♂, Aspen Lake, Klamath Co., Ore.

Geographical range: California, Oregon.

California records:

Plumas Co.: Chester, 13 ♂, 6 ♀, VI-11-31 (F. H. Wymore, C.A.S.). Meadow Valley, ♀, VI-21-24 (F. H. Wymore, C.A.S.).

Tuolumne Co.: Yosemite, ♀, VII-24-34; ♂, VII-19-21 (F. H. Wymore, C.A.S.).

Yuba Co.: Comptonville, ♂, VI-25-21 (F. H. Wymore, C.A.S.).

#### *Okanagana rimrosa* (Say)

*Cicada rimrosa* Say, 1830, Jour. Acad. Sci., Phila., 6:235. Type locality, probably N. Dak. or S. Dak.

Geographical range: California, Idaho, Illinois, Indiana, Iowa, Maine, Massachusetts, Michigan, Minnesota, Montana, Nebraska, Nevada, New Hampshire, New York, North Dakota, Ohio, Oregon, Pennsylvania, South Dakota, Utah, Vermont, Washington, Wisconsin, Wyoming.

California records:

Plumas Co.: Quincy, ♂, VI-34-49 (E. I. Schlinger, U.C.D.).

Tuolumne Co.: Yosemite, ♂, VII-30-38 (C.I.S.).

#### *Okanagana bella* Davis

*Okanagana bella* Davis, 1919, Jour. N.Y. Ent. Soc., 27:198-202. Holotype ♂, Stockton, Utah; allotype ♀, Soldier's Canyon, Stockton, Utah.

Geographical range: California, Colorado, Idaho, Kansas, Montana, New Mexico, Oregon, Utah, Washington, Wyoming.

California records:

Alpine Co.: Angora Peak, 8000', 2 ♂, VII-10-31 (F. H. Wymore, C.I.S.). Hope Valley, 2 ♂, VII-18-48 (K. W. Tucker, C.I.S.); ♂, same data (R. C. Bynum, C.A.S.); ♀, same data (P. D. Hurd, C.I.S.).

Butte Co.: Merrimac, ♂, VII-7-32 (R. L. Usinger, C.I.S.).

El Dorado Co.: Al Tahoe, 1 mi. S., ♂, VI-28-29 (R. L. Usinger, C.A.S.). Devil's Basin, 8200', ♂, VII-10-31 (E. O. Essig, C.A.S.); ♂, VII-12-31 (E. O. Essig, C.I.S.). Echo Lake, 2 ♂, IX-10-24 (F. H. Wymore, C.A.S.); ♂, VII-10-31 (E. O. Essig, C.I.S.). Fallen Leaf Lake, 4 ♂, 2 ♀, VII-13-15 (E. C. Van Dyke, C.A.S.). 3 ♂, VII-25-32 (C.I.S.). Myers, 4 ♂, ♀, VII-15-29 (F. H. Wymore, C.A.S.). Haypress Meadows, 2 ♂, VII-12-31 (E. O. Essig, C.A.S.). Riverton, ♀, VIII-6-31 (R. L. Usinger, C.I.S.). Tallac, Lake Tahoe, ♂, VII-27-15 (E. P. Van Duzee, C.A.S.).

Fresno Co.: Bubbs Creek Canyon, ♂, VII-8-10 (L. H. Weld, C.A.S.).

Inyo Co.: Bishop, 10 ♂, 2 ♀, VI-22-30 (F. H. Wymore, C.A.S.).

Lassen Co.: Litchfield, 2 ♂, VII-10-46 (P. D. Hurd, R. F. Smith, C.I.S.).

Modoc Co.: Buck Creek, ♂, ♀, VII-20-22 (C. L. Fox, C.A.S.). Cedar Pass, ♂, VII-6-50 (H. E. Cott, U.C.D.). Davis Creek, 11 ♂, 10 ♀, VII-17-22 (C. L. Fox, C.A.S.). Lake City, ♂, VII-9-46 (R. F. Smith, P. D. Hurd, C.I.S.). Sugar Hill Gal; ♂, VII-5-50 (H. E. Cott, U.C.D.).

Mono Co.: Unknown locality, 2 ♂, VI-19-17 (C. L. Fox, C.A.S.). Bridgeport, ♂, VI-20-27 (T. Craig, C.A.S.); 6 ♂, VI-23-29 (E. P. Van Duzee, C.A.S.). Coleville, ♂, VI-20-32 (C.I.S.); ♂, same data (C.A.S.). Fales Hot Springs, 4 ♂, VI-28-49 (L. W. Isaak, U.C.D.). Mono Lake, 2 ♂, VI-19-17 (C. L. Fox, C.A.S.). Tioga Lodge on Mono Lake, 6 ♂, VI-22-29 (E. P. Van Duzee, C.A.S.). Walker River, Leavitt Meadows, 11 ♂, 2 ♀, VI-23-37 (E. C. Van Dyke, C.A.S.).

Nevada Co.: Truckee, 10 ♂, 2 ♀, VII-4-27; ♂, ♀, VI-19-27 (E. P. Van Duzee, C.A.S.).

Plumas Co.: Meadow Valley, ♂, VII-3-40 (H. T. Reynolds, C.I.S.). Quincy, 4 mi. W., ♂, ♀, VII-2-49 (F. Morishita, C.I.S.); ♀, VII-2-49 (P. D. Hurd, C.I.S.).

San Bernardino Co.: Bear Lake, ♂, V-25-19 (J. O. Martin, C.A.S.).

Shasta Co.: Unknown locality, ♂, VI-26-28 (J. A. Kusche, C.A.S.). McCloud, ♂, VI-22-14 (E. C. Van Dyke, C.A.S.).

Siskiyou Co.: Montague, ♂, VII-19-14 (C.A.S.).

Trinity Co.: Carrville, 2 ♂, V-23-34 (F. H. Wymore, C.A.S.).



Tuolumne Co.: Gaylor Lake, ♂, VIII-22-47 (L. L. Jensen, C.I.S.). Mt. Mather, ♀, VII-27-30 (F. H. Wymore, C.A.S.). Sonora Pass, ♂, VII-18-48 (V. M. Stern, C.I.S.); ♂, VII-13-51 (W. H. Lange, U.C.D.); ♂, VII-13-50 (D. Davis, C.I.S.). Tuolumne Meadows, 3 ♂, VII-27; ♂, VII-29 (R. L. Usinger, C.I.S.). Yosemite, ♀, VI-14-21 (E. O. Essig, C.I.S.).

*Okanagana gibbera* Davis

*Okanagana gibbera* Davis, 1943, Jour. N.Y. Ent. Soc., 35:377-379. Holotype ♂, allotype ♀, Iron Springs, Iron Co., Utah.

Geographical range: California, Colorado, Nevada, Oregon, Utah, Washington, Wyoming.

California records:

Mono Co.: Benton Station, 5 ♂, 2 ♀, VI-37 (F. H. Wymore, C.A.S.).<sup>5</sup>

*Okanagana annulata* Davis

*Okanagana annulata* Davis, 1935, Jour. N.Y. Ent. Soc., 43:304-305. Holotype ♂, Promontory, Box Elder Co., Utah; allotype ♀, Hardup, Tooele Co., Utah.

Geographical range: California, Idaho, Nevada, Utah.

California records:

Lassen Co.: Hallelujah Junction, ♂, VI-27-49 (R. C. Bechtel, U.C.D.); ♀, same data (A. S. Deal, U.C.D.); ♂, same data (L. L. Jensen, C.I.S.); ♂, VI-27-49 (C. I. Smith, C.I.S.); ♂, VII-4-49 (L. W. Isaak, U.C.D.).

Mono Co.: Bridgeport, 4 ♂, VI-23-29 (R. L. Usinger, C.A.S.).

*Okanagana triangulata* Davis

*Okanagana triangulata* Davis, 1915, Jour. N.Y. Ent. Soc., 23:14. Holotype ♂, Mendocino Co., Calif.

Geographical range: California.

California records:

Alameda Co.: Berkeley, 2 ♂, VI-6-40 (Miller, C.I.S.); 2 ♂, VII-4-40 (B. Brookman, C.I.S.); ♂, VI-9-49 (R. L. Langston, C.I.S.); 6 ♂, VI-10-30, ♂, VI-14-33 (F. H. Wymore, C.A.S.).

Contra Costa Co.: Moraga, 2 ♂, VI-1-40 (Miller, C.I.S.). Orinda, 6 ♂, VI-28-28 (F. H. Wymore,

C.A.S.). Rodeo, 2 ♂, VI-9-30 (F. H. Wymore, C.A.S.). Tunnel Road, ♂, VI-28-28 (F. H. Wymore, C.A.S.). Walnut Creek, 4 ♂, VII-1-30 (F. H. Wymore, C.I.S.); 3 ♂, same data (C.A.S.).

Fresno Co.: Firebaugh, 2 ♂, VII-14-48 (V. M. Stern, C.I.S.); ♀, VII-8-47 (R. v. d. Bosch, C.I.S.).

Humboldt Co.: Blocksburg, ♂, V-30-35 (H. J. Rayner, C.A.S.). Fort Seward, ♀, VI-6-35 (E. O. Essig, C.I.S.).

Inyo Co.: Big Pine, 2 ♂, VI-16-29 (R. L. Usinger, C.A.S.). Independence, 6 ♂, 2 ♀, VI-12-20; ♀, VI-13-29; 25 ♂, 19 ♀, VI-13-19 (E. P. Van Duzee, C.A.S.); ♀, VI-13-29 (R. L. Usinger, C.I.S.). Lone Pine, 2 ♂, VI-23-30; ♀, VI-19-37 (F. H. Wymore, C.A.S.). Olanche, 3 ♂, ♀, VI-25-17 (W. T. Davis, C.A.S.).

Lake Co.: Highland Springs, 2 ♂, ♀, VI-10-32 (F. H. Wymore, C.A.S.); ♂, same data (C.I.S.). Hullville, ♂, VI-8-17 (F. E. Blaisdell, C.A.S.).

Marin Co.: Mill Valley, ♂, VI-4-27 (R. L. Usinger, C.I.S.).

Mendocino Co.: Dyerville, ♂, VII-1908 (C.I.S.). Willits, ♂, VI-8-32 (F. H. Wymore, C.A.S.).

Merced Co.: Los Banos, ♂, 2 ♀, IX-13-35 (F. T. Scott, C.A.S.).

Nevada Co.: Nevada City, ♂, V-28-50 (K. T. Martin, C.I.S.).

San Bernardino Co.: Chino, 7 ♂, VII-17-23 (T. Craig, C.A.S.).

Solano Co.: Cordelia, 16 ♂, ♀, VII-14-26; 4 ♂, VIII-2-28; 2 ♂, VI-27-28 (F. H. Wymore, C.A.S.). Davis, ♂, VI-9-? (A. T. McClay, U.C.D.); ♂, V-14-47 (E. I. Schlinger, U.C.D.); 5 ♂, V-1930; 2 ♂, V-25-32 (F. H. Wymore, C.A.S.). Fairfield, 10 ♂, 2 ♀, VIII-2-28 (F. H. Wymore, C.A.S.). Vacaville, 5 ♂, 2 ♀, VIII-2-28 (F. H. Wymore, C.A.S.). Vallejo, ♂, V-28-50 (J. N. Simons, C.I.S.). Rio Vista, 3 ♂, VII-31-32 (F. H. Wymore, C.A.S.).

Sonoma Co.: Santa Rosa, 2 ♂, ♀, VIII-4-35; 2 ♂, VII-5-34 (F. H. Wymore, C.A.S.). Sebastopol, 2 ♂, VI-1931 (F. H. Wymore, C.A.S.).

Tuolumne Co.: Twain Harte, ♀, VII-1937 (F. H. Wymore, C.A.S.).

Yolo Co.: Woodland, 2 ♂, V-25-32; 5 ♂, V-18-32; 5 ♂, V-19-32 (F. H. Wymore, C.A.S.); ♂, same data (C.I.S.).

*Okanagana wymorei* Davis

*Okanagana wymorei* Davis, 1935, Jour. N.Y. Ent. Soc., 43:305-306. Holotype ♂ and 2 paratypes, Lebec, Kern Co., Calif.

5. New state record.

Geographical range: California.

California records:

Los Angeles Co.: Lancaster, 7 ♂, 3 ♀, V-19-37 (E. P. Van Duzee, C.A.S.).

*Okanagana oregona* Davis

*Okanagana oregona* Davis, 1916, Jour. N.Y. Ent. Soc., 24:233. Holotype ♂, Mary's Peak, Ore.; allotype ♀, Corvallis, Ore.

Geographical range: California, Oregon.

California records:

Plumas Co.: Keddie, ♂, VII-22-41 (F. H. Rindge, C.I.S.); ♀, VI-25-49 (P. D. Hurd, C.I.S.).<sup>6</sup>

*Tibicinoides cupreo-sparsus* (Uhler)

*Tibicen cupreo-sparsus* Uhler, 1889, Trans. Md. Acad. Sci., 1:43. Type locality, Los Angeles, Calif.

Geographical range: California, Mexico.

California records:

San Bernardino Co.: Redlands, ♂, V-21-27 (T. Craig, C.A.S.).

San Diego Co.: Unknown locality, ♂, V-25-29 (C. C. Searl, C.I.S.); 9 ♂, V-6-24; 15 ♂, V-24-14; 2 ♂, V-17-14 (E. P. Van Duzee, C.A.S.). Chula Vista, ♂, V-10-15 (E. L. Prizer, C.I.S.); 2 ♂, same data (C.A.S.).

*Tibicinoides mercedita* (Davis)<sup>7</sup>

*Okanagana mercedita* Davis, 1915, Jour. N.Y. Ent. Soc., 23:16-17. Holotype ♂, allotype ♀, and 30 paratypes, Merced Co., Calif.

Geographical range: California.

California records:

Alameda Co.: Livermore, 2 ♂, ♀, VI-21-35 (F. H. Wymore, C.A.S.). Oakland Hills, ♂, VI-18-27 (R. L. Usinger, C.A.S.). Sunol, ♂, V-14-22 (F. P. Cole, C.A.S.).

Contra Costa Co.: Mt. Diablo, 2 ♂, ♀, VI-14-43 (P. H. Timberlake, U.C.R.); 5 ♂, VI-14-33 (C.A.S.). Unknown locality, ♂, VI-8-32 (E. R. Leach, C.A.S.).

Lake Co.: Kelseyville, 2 ♂, VI-8-32; ♂, VI-9-32; 17 ♂, 3 ♀, VI-11-33; ♂, VI-30-33 (F. H. Wymore, C.A.S.); 2 ♂, VI-9-32 (R. L. Usinger, C.I.S.). Upper Lake, 3 ♂, VI-23-23 (F. H. Wymore, C.A.S.).

Marin Co.: Fairfax, 2 ♂, ♀, VI-1-31 (F. H. Wymore, C.A.S.); 9 ♂, ♀, same data (C.I.S.). Lagunitas, ♂, VI-9-40 (Miller, C.I.S.). Stinson Beach, 4 ♂, VI-19-40 (Miller, C.I.S.).

Merced Co.: Merced, ♂, VI-4-30 (R. L. Usinger, C.I.S.); ♂, same data (C.A.S.).

Napa Co.: Sage Canyon, 9 ♂, ♀, V-7-34 (F. H. Wymore, C.A.S.).

Sacramento Co.: ♂, VII-27-33 (F. H. Wymore, C.A.S.).

Santa Clara Co.: Los Gatos, ♂, ♀, VI-8-07 (J. C. Bradley, C.A.S.). Morgan Hill, ♂, III-23-22; 6 ♂, V-22-22; 2 ♂, V-25-22; ♂, VI-1-22 (F. H. Wymore, C.A.S.). Mt. Hamilton, 18 ♂, 2 ♀, VI-20-22; ♂, VI-11-33 (F. H. Wymore, C.A.S.); 2 ♂, VI-10-22 (S. E. Flanders, C.A.S.); 26 ♂, VI-20-22 (E. O. Essig, C.I.S.); 2 ♂, same data (S. E. Flanders); ♂, same data (F. H. Wymore).

Santa Cruz Co.: Santa Cruz Mts., 4 ♂, VI-15-22 (F. H. Wymore, C.A.S.); 3 ♂, same data (E. O. Essig, C.I.S.); ♂, same data (S. E. Flanders, C.I.S.).

Solano Co.: Davis, 4 ♂, V-25-50 (E. I. Schlinger, U.C.D.); ♂, VI-26-32; 2 ♂, 2 ♀, VI-2-32 (R. L. Usinger, C.I.S.); 17 ♂, VI-25-32; ♂, V-29-33; 3 ♂, VI-12-33; 18 ♂, 2 ♀, VI-23-33 (F. H. Wymore, C.A.S.). Dixon, 11 ♂, ♀, VI-12-28 (F. H. Wymore, C.A.S.). Rio Vista, 2 ♂, VI-7-23 (F. H. Wymore, C.A.S.); ♂, same data (C.I.S.); ♂, V-22-26; 6 ♂, V-25-26; 9 ♂, 3 ♀, VI-12-28 (F. H. Wymore, C.A.S.). Vacaville, 3 ♂, ♀, VI-20-33 (F. H. Wymore, C.A.S.).

Stanislaus Co.: ♂, VI-26-48 (W. W. Middlekauff, C.I.S.).

Sutter Co.: Unknown locality, 4 ♂, V-20-34 (E. R. Leach, C.A.S.). Marysville Buttes, ♂, V-31-28 (H. H. Keifer, C.A.S.).

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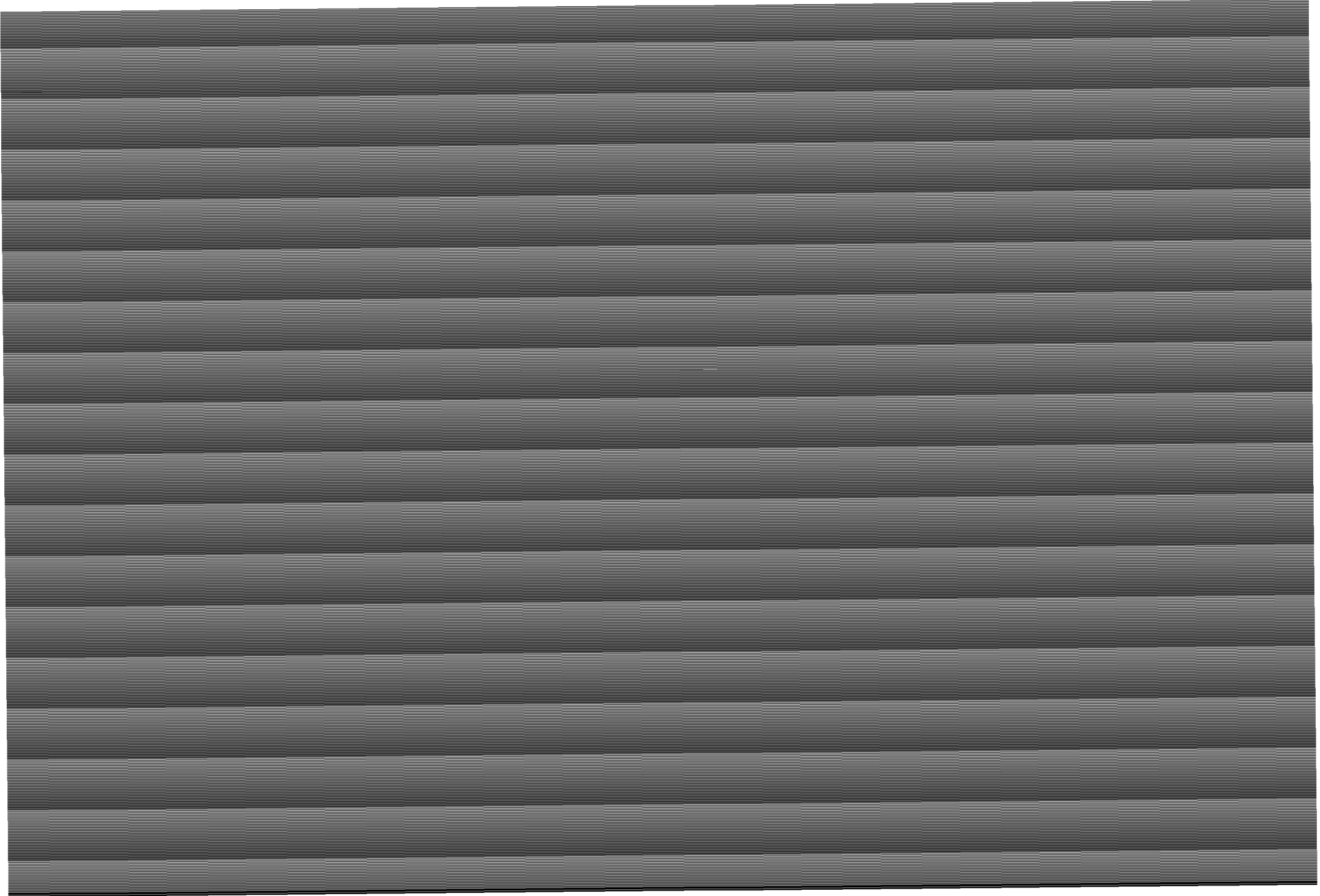
Van Duzee, E. P.

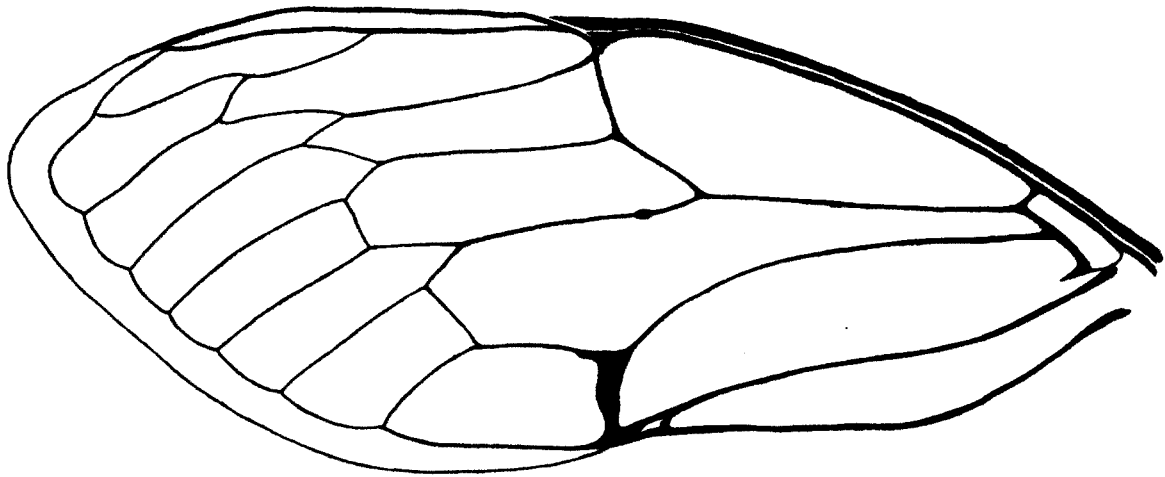
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6. New state record.

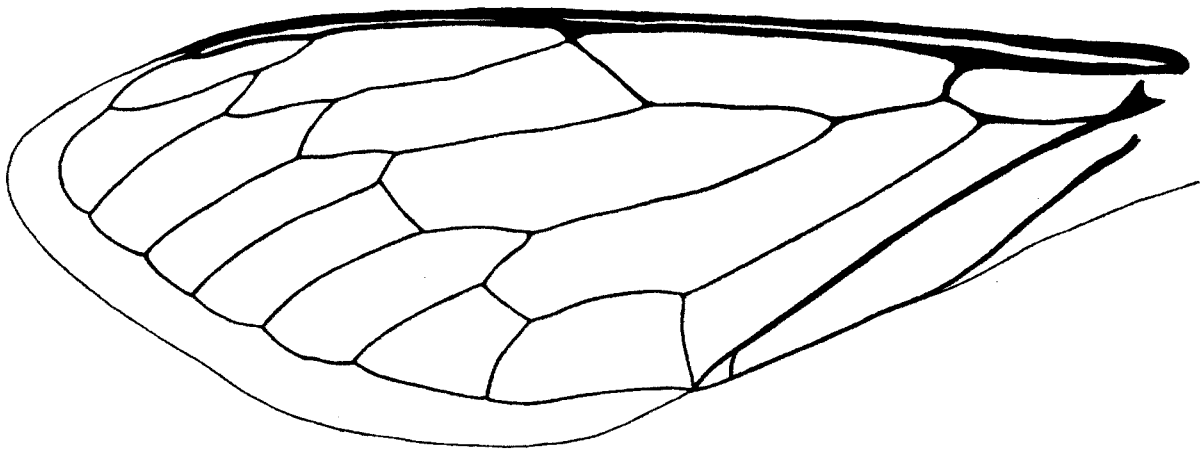
7. *T. minuta* Davis is considered synonymous with *mercedita* Davis.

# PLATES

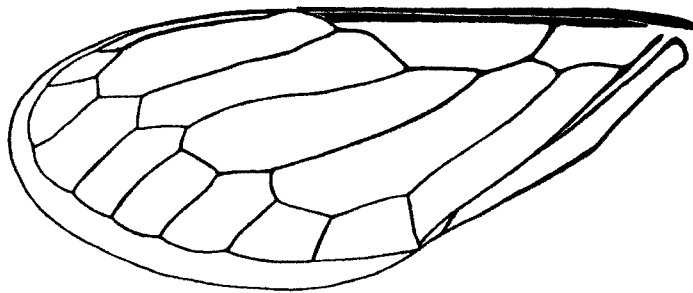




A.



B.



C.

Plate 41

Forewings of the following genera of cicadas. A, *Clidopleps* Van Duzee;  
B, *Okanagana* Distant; C, *Tibicinoides* Distant.

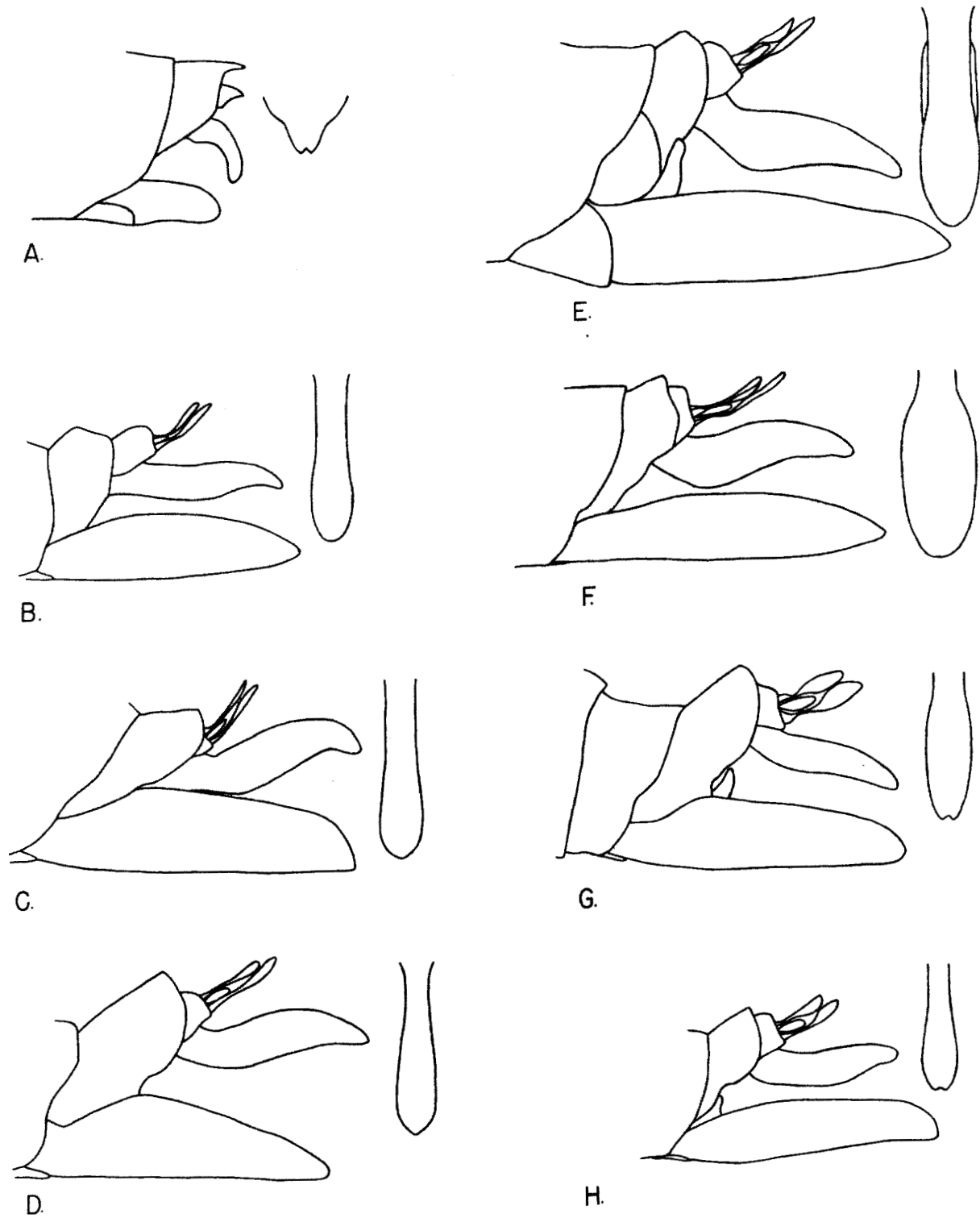


Plate 42

Lateral (left) and dorsal (right) aspects of the aedeagi of the following species. A, *Cacama crepitans* Van Duzee; B, *Platypedia tomentosa* Davis; C, *P. falcata* Davis; D, *P. middlekauffi* Simons; E, *P. putnami putnami* Uhler; F, *P. areolata* (Uhler); G, *P. minor* Uhler; H, *P. scotti* Davis.

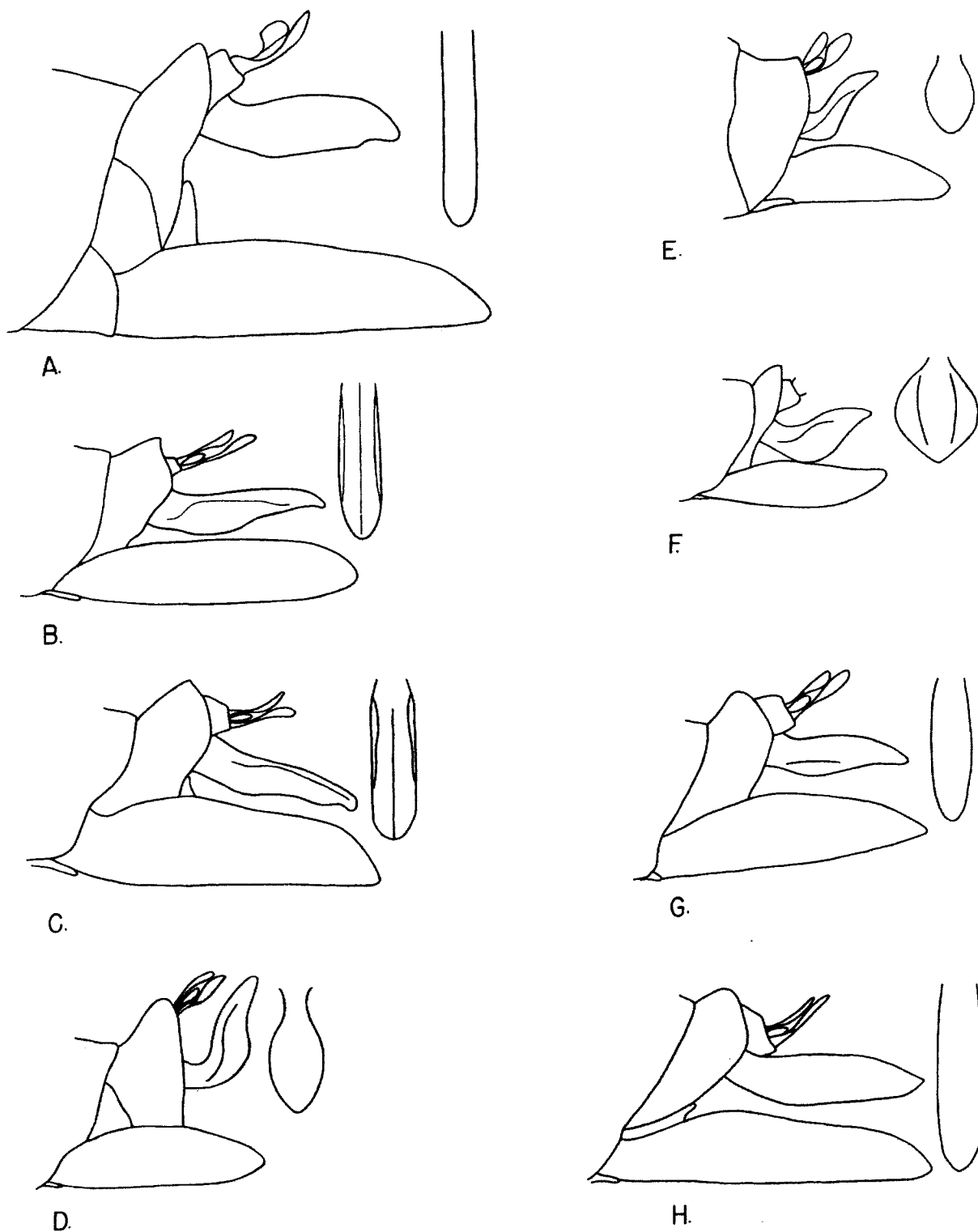


Plate 43

Lateral (left) and dorsal (right) aspects of the aedeagi of the following species. A, *Platypedia similis* Davis; B, *P. mariposa* Davis; C, *P. usingeri* Simons; D, *P. laticapitata* Davis; E, *P. vanduzeei* Davis; F, *P. aperta* Van Duzee; G, *P. barbata* Davis; H, *P. sylvesteri* Simons.

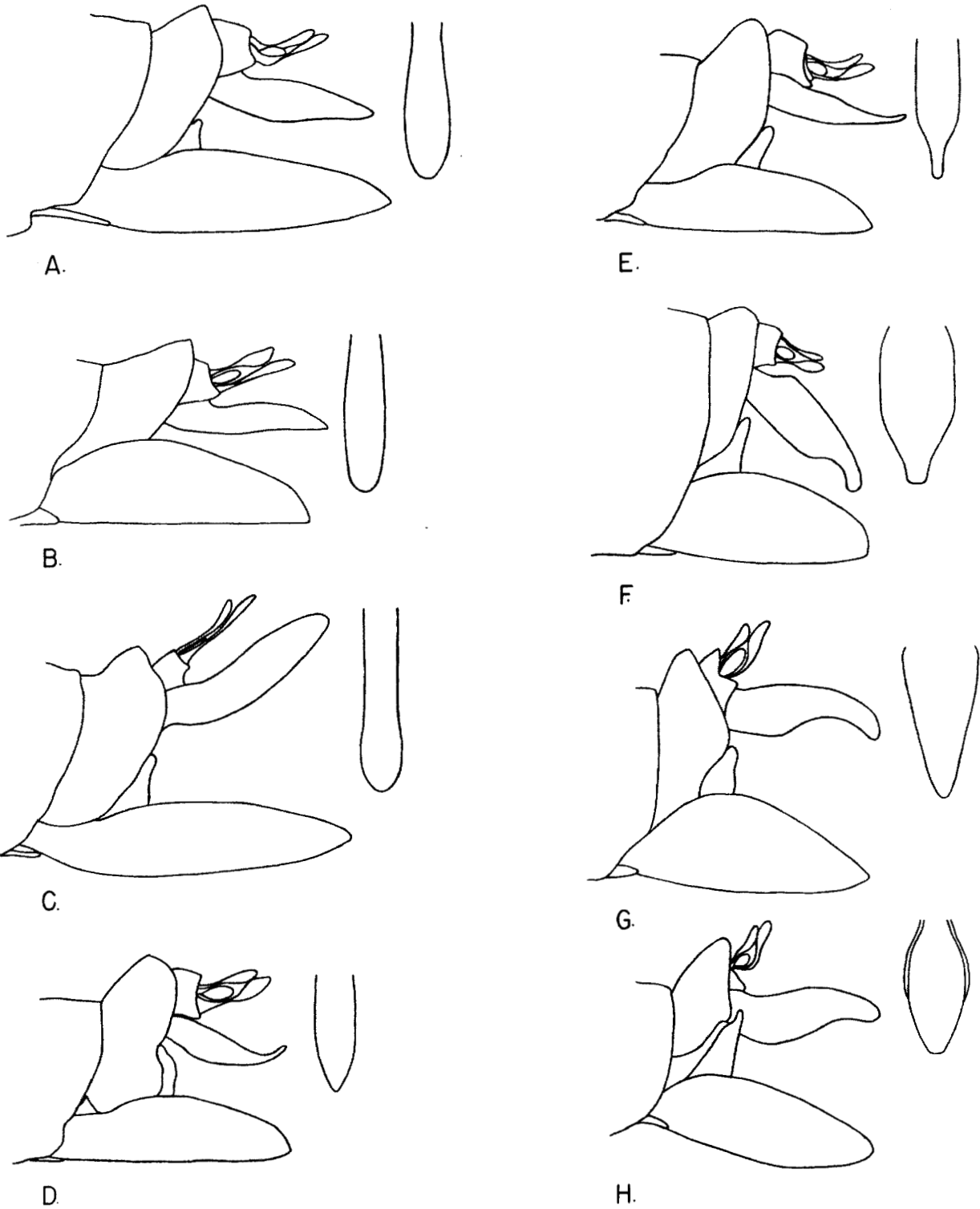


Plate 44

Lateral (left) and dorsal (right) aspects of the aedeagi of the following species. A, *Platypedia mohavensis* Davis; B, *P. rufipes* Davis; C, *P. bernardoensis* Simons; D, *Neoplatypedia ampliata* (Van Duzee); E, *N. constricta* Davis; F, *Okanagodes gracilis* Davis; G, *Clidoppleps vagans* Davis; H, *C. wrighti* Davis.



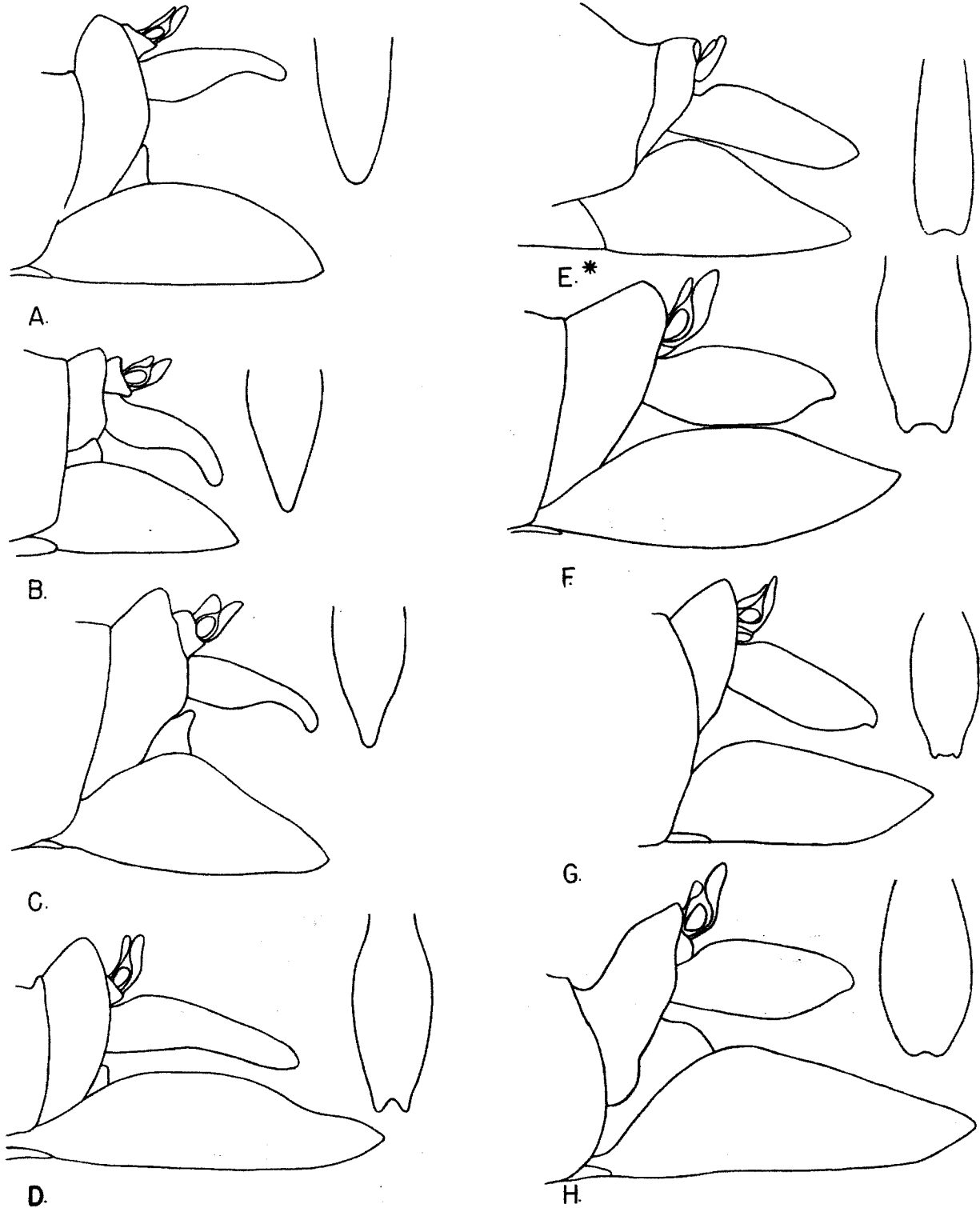


Plate 45

Lateral (left) and dorsal (right) aspects of the aedeagi of the following species. A, *Clidoppleps blaisdelli* (Uhler); B, *C. tenuis* Davis; C, *C. distanti* Van Duzee; D, *Okanagana nigriviridis* Davis; E, *O. opacipennis* Davis; F, *O. vandykei* Van Duzee; G, *O. tristis* Van Duzee; H, *O. aurora* Davis. \* The asterisk indicates the drawing is after Davis.

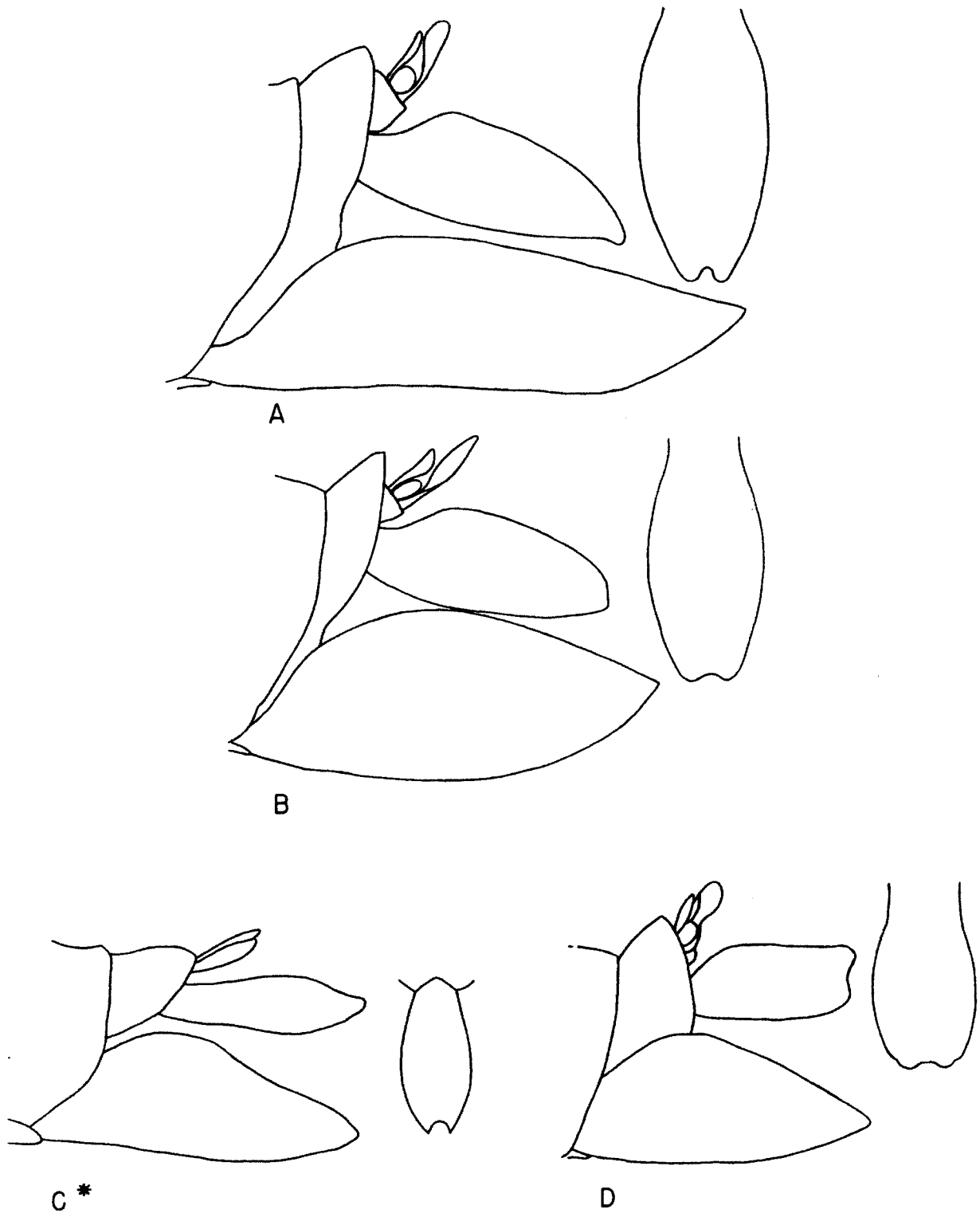


Plate 46

Lateral (left) and dorsal (right) aspects of the aedeagi of the following species. A, *Okanagana magnifica* Davis; B, *O. sperata* Van Duzee; C, *O. venusta* Davis; D, *O. mariposa* Davis. \* The asterisk indicates the drawing is after Davis.

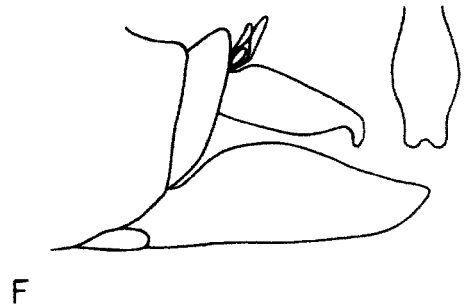
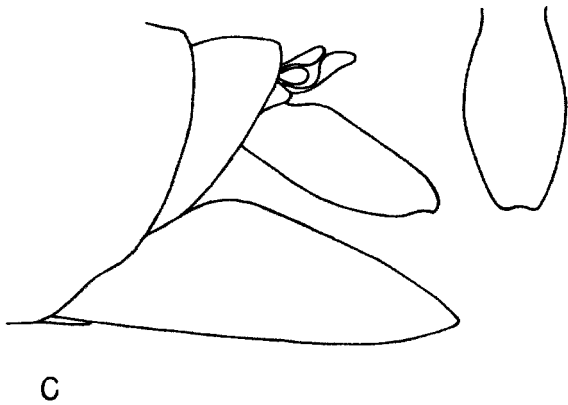
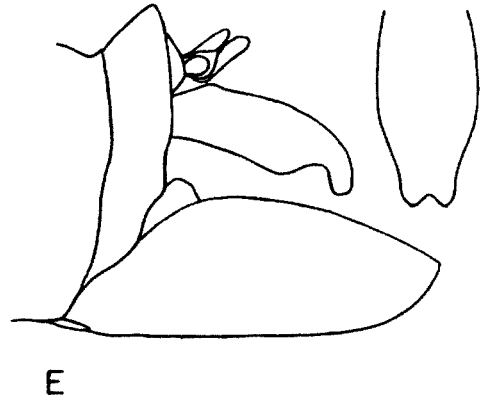
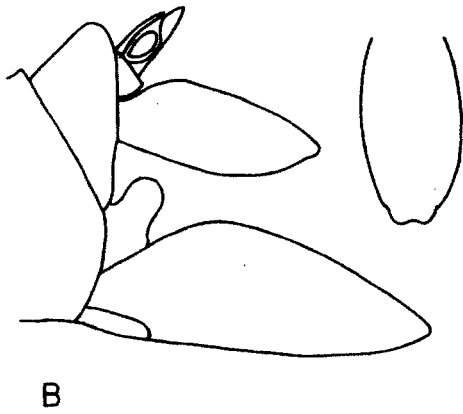
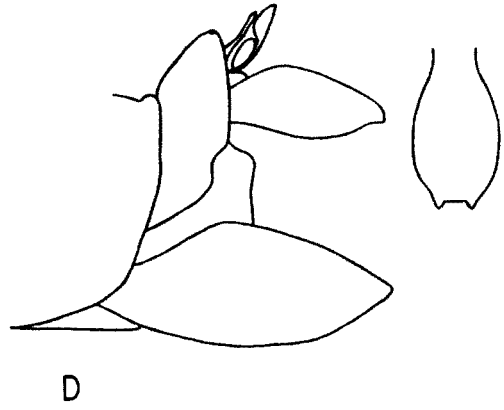
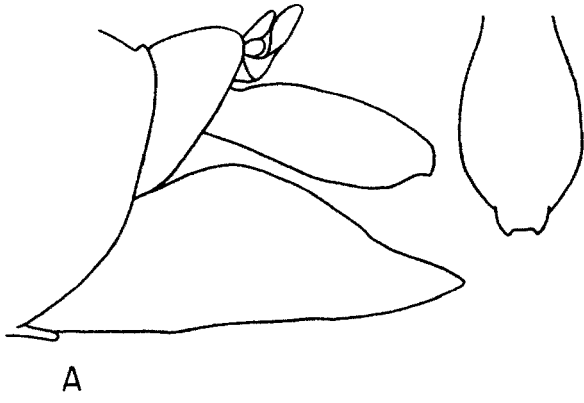


Plate 47

Lateral (left) and dorsal (right) aspects of the aedeagi of the following named species. A, *Okanagana gibbera* Davis; B, *O. ferrugomaculata* Davis; C, *O. rimrosa* (Say); D, *O. oregona* Davis; E, *Tibicnoides mercedita* (Davis); F, *T. cupreo-sparsus* (Uhler).

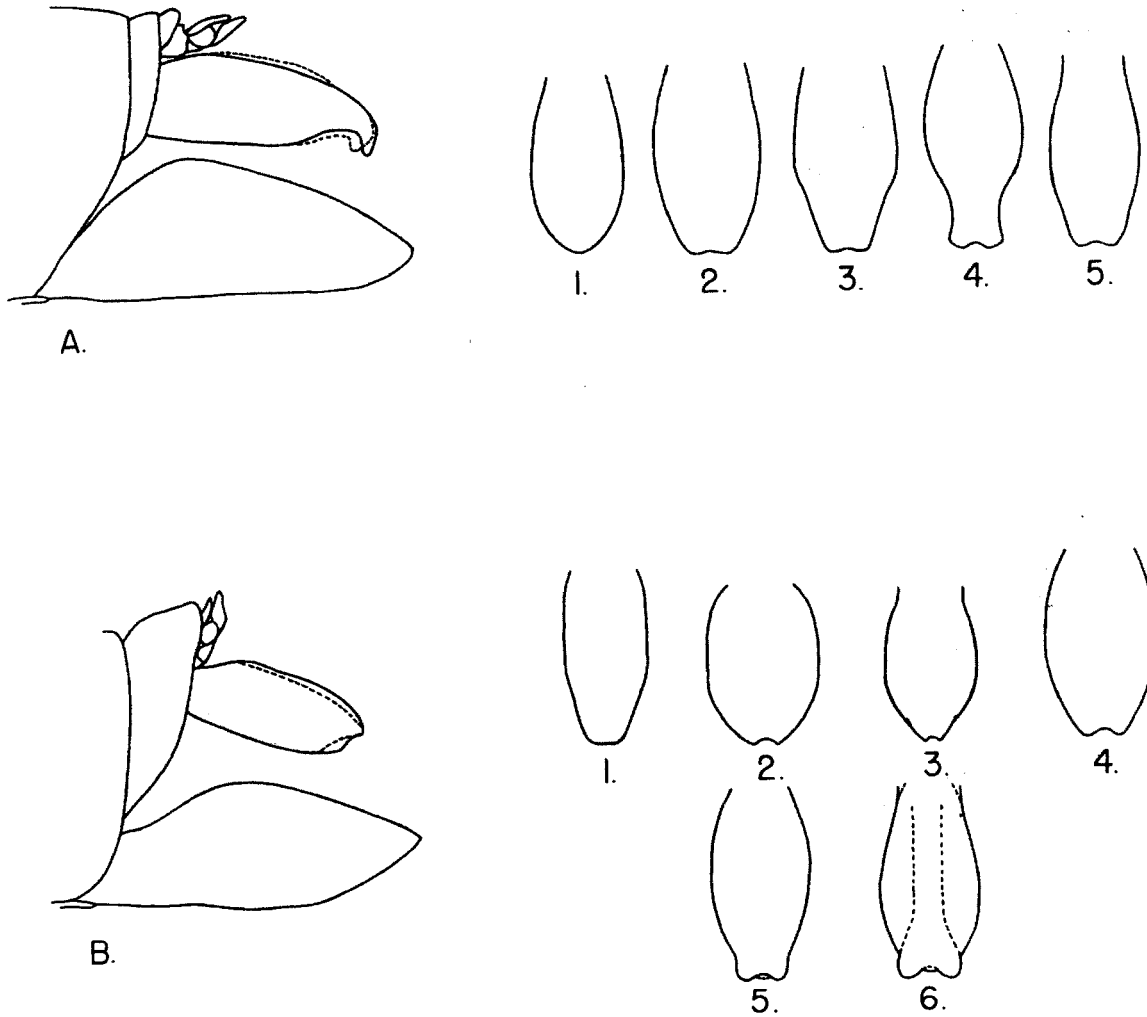


Plate 48

A, (upper) Composite lateral view, and 1-5 dorsal views (composite as indicated) of the aedeagi of the following species of *Okanagana*. 1, *O. simulata* Davis, *O. vanduzeei* Distant; 2, *O. striatipes* (Hald.), *O. utahensis* Davis; 3, *O. pallidula* Davis; 4, *O. rubrovenosa* Davis; 5, *O. uncinata* Van Duzee.

B, (lower) Composite lateral view, and 1-6 dorsal views (composite as indicated) of the aedeagi of the following species of *Okanagana*. 1, *O. villosa* Davis; 2, *O. triangulata* Davis; 3, *O. wymorei* Davis; 4, *O. annulata* Davis, *O. arboraria* Wymore, *O. arctostaphylae* Van Duzee; *O. napa* Davis; 5, *O. alibasilis* Wymore, *O. cruentifera* (Uhler), *O. nigrodorsata* Davis; 6, *O. bella* Davis, *O. canescens* Van Duzee, *O. davisii* Simons, *O. occidentalis* Walker, *O. ornata* Van Duzee.