

A REVIEW OF NEW WORLD *ENTOMOGNATHUS* WITH DESCRIPTIONS OF
SEVEN NEW SPECIES (HYMENOPTERA, SPHECIDAE, CRABRONINI)

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Abstract.—A key is given to the 14 New World species of the genus *Entomognathus* Dahlbom (1894). Of the seven new species six are assigned to the subgenus *Toncahua* Pate: *alaris* (western U.S., Durango, Mexico), *apache* (Arizona), *arizonae* (Arizona, Mexico), *coloratus* (Arizona, New Mexico), *guerreroi* (Guerrero, Mexico), and *occidentalis* (California, Nevada). One new species is assigned to *Entomognathus* s.s.: *dinocerus* (Morelos, Mexico).

Key Words: *Entomognathus*, Hymenoptera, Sphecidae, Crabronini, New World, *Toncahua*

The genus *Entomognathus* Dahlbom had 42¹ species assigned to it in 1976 (Bohart and Menke). All of these have hairy eyes and occur primarily in the Holarctic and Ethiopian Regions. A revised key to the four subgenera was given by Bohart and Menke (1976: 381). All seven of the previously known American species are in the subgenus *Toncahua* Pate (1944) in which the males have only 12 antennal articles and some of the terga of both sexes have their posterior margins concave. In the present paper seven additional species are described, six in *Toncahua*, and one in the subgenus *Entomognathus* Dahlbom.

Comments by reviewers, especially those by Karl Krombein, were most helpful. Thanks are also extended to curators of institutions which have lent material (type deposition is indicated by the city involved in capitals):

American Museum of Natural History
(NEW YORK).

California Academy of Sciences (SAN FRANCISCO).

Oregon State University Entomology Museum (CORVALLIS).

University of Arizona (TUCSON).

University of California Bohart Museum (DAVIS).

University of Kansas Snow Museum (LAWRENCE).

U.S. National Museum of Natural History (WASHINGTON).

Terms used in the key and descriptions which may be unfamiliar are: foveolate: divided into small cell-like units; flagellomeres: antennal articles beyond pedicel; MOD: median ocellus diameter; omaulus: carina at widest point of mesothorax; S-I to S-VII: abdominal sterna beyond propodeum; T-I to T-VII: abdominal terga beyond propodeum; prepectus: anterior section of mesopleuron below pronotal lobe.

KEY TO NORTH AMERICAN
ENTOMOGNATHUS

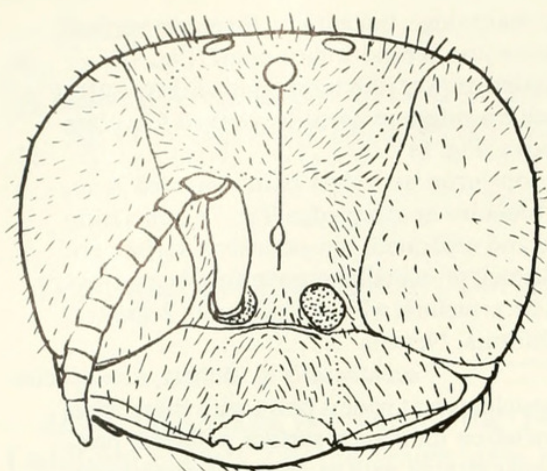
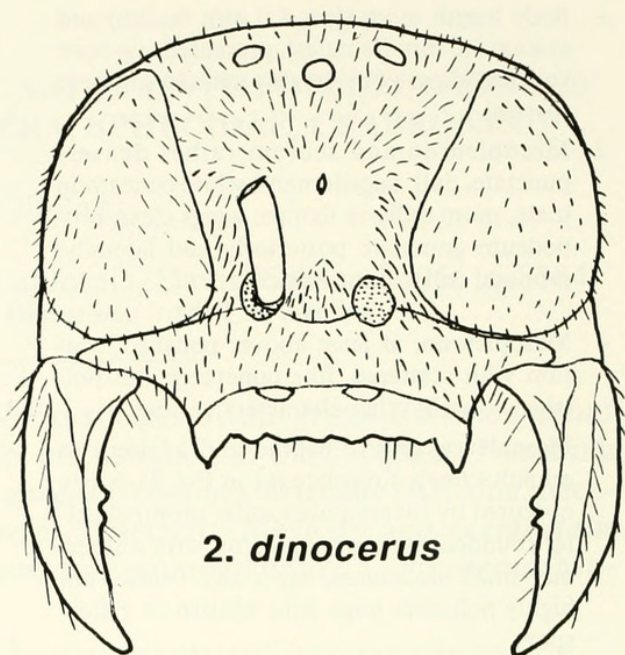
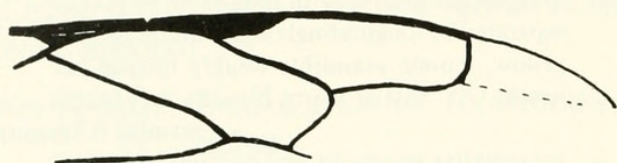
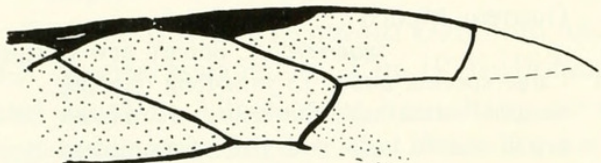
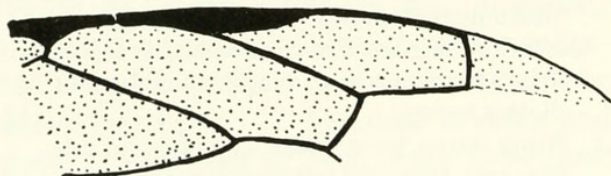
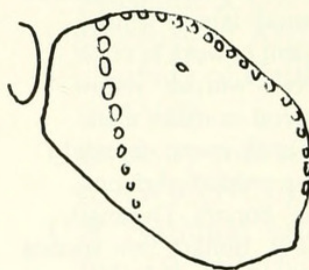
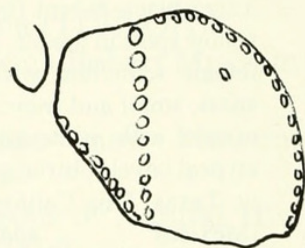
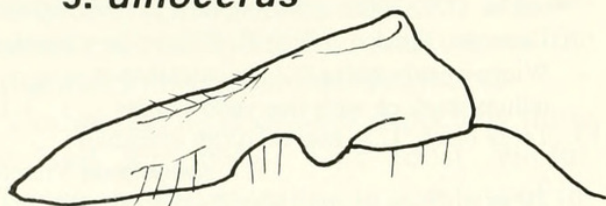
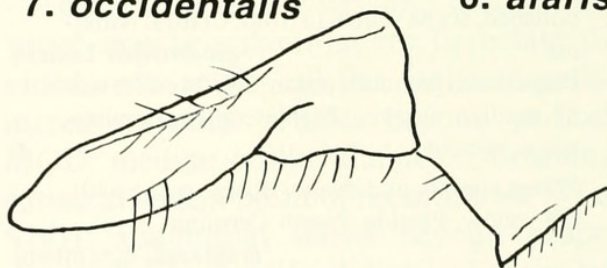
1. Body length less than 4.0 mm (males) or 5.0 mm (females); prescutellar groove foveolate; wings clear or weakly, evenly stained 2

¹ There are now 45 species known. Marshakov (1976) described two from Asia and *nasutus* (Gribodo) (1884) was transferred from *Lindenius* by Leclercq (1989).

- Body length more than 4.0 mm (males) and at least 5.0 mm (females), prescutellar groove various, wings considerably stained (in most species) 7
- 2. Mesopleuron and scutum rather densely punctate, dull; flagellomeres white beneath in male, more dully in female; wings clear, propodeum granulate posteriorly and laterally; pronotal collar thin; Arizona *arizonae* R. Bohart, new species
- Mesopleuron, at least above, polished; scutum with scattered, fine punctures, but polished overall; other characters various 3
- 3. Mesopleural groove behind and adjacent to omaulus finely foveolate (as in Fig. 8), partly obscured by silvery pubescence; pronotal collar rounded over; mesopleuron with numerous small punctures, especially below, not highly polished; terga with whitish or yellow spots 4
- Mesopleural groove behind and adjacent to omaulus coarsely foveolate; pronotal collar narrow, not rounded; mesopleuron highly polished; terga unspotted 5
- 4. Terga partly or entirely rust red except for lateral whitish spots, female scutellum and metanotum all whitish, female clypeal bevel broadly lenticular, New Mexico *coloratus* R. Bohart, new species
- Terga black except for small lateral whitish yellow spots in female, absent or weak in male; female scutellum with two whitish yellow spots, small and more lateral in male, metanotum with posterior linear spots; female clypeal bevel subtriangular, reddish; Arizona, w. Texas, Baja California, Sonora, Durango (Mexico) *apache* R. Bohart, new species
- 5. Propodeum posteriorly with flat, polished areas flanking median furrow, also basolaterally polished, scape yellow in front, Central America *geometricus* Leclerq
- Propodeum granulate posteriorly on either side of median furrow, basolaterally granulate, scape various 6
- 6. Wings slightly and evenly dusky, scape whitish yellow, Florida, North Carolina *arenivagus* Krombein
- Wings hyaline, scape black, Mexico *mexicanus* Cameron
- 7. Wings hyaline, prescutellar groove foveolate, notauli somewhat impressed anteriorly to give scutum a tripartite appearance, Mexico *evolutionis* (Leclerq)
- Wings slightly or heavily stained, other characters various. 8
- 8. Mesopleuron at its widest point with or without sharp ridge, but without foveolate vertical groove just behind widest point (Fig. 7) ... 9
- Mesopleuron at its widest point with omaulus or sharp ridge, adjacent to vertical foveolate groove (Fig. 8) 11
- 9. Mesopleuron at widest point rounded over, no omaulus or sharp edge (Fig. 7); punctation fine and separated, but extensive, surface not polished; prescutellar groove simple, not foveolate; scutellum whitish yellow, not 2-spotted, California, Nevada *occidentalis* R. Bohart, new species
- Mesopleuron at widest point with sharp edge; punctation indistinct, surface polished; prescutellar groove with at least a median longitudinal ridge; scutellum black or with two yellow spots 10
- 10. Prescutellar groove with four or more foveae separated by longitudinal ridges, markings pale yellow, female mandible weakly incised beneath, U.S. east of Sierra Nevada, n. Mexico *texanus* (Cresson)
- Prescutellar groove in two sections separated by a median ridge; markings deep yellow; female mandible sharply excised beneath; Guerrero, Mexico *guerreroi* R. Bohart, new species
- 11. Large species, about 15 mm long (female); occipital carina ending laterally in sharp tooth; top of clypeal bevel with pair of prominent, forwardly directed processes; wings dark brown; Morelos, Mexico *dinocerus* R. Bohart, new species
- Medium-sized species, less than 7.0 mm long; occipital carina not toothed laterally; top of clypeal bevel unarmed, wings various but not all dark brown 12
- 12. Wings brown toward base, clear beyond cellular area; prepectal yellow spot present; scutellum often all yellow, sometimes two-spotted; w. U.S.: 100th meridian west to Arizona; Durango, Mexico *alaris* R. Bohart, new species
- Wings weakly stained, no prepectal spot, scutellum black or with two yellow spots 13
- 13. Terga black, U.S. east of 100th meridian ... *lenapeorum* Viereck
- Terga with one or more whitish-yellow, lateral spots, U.S. east of 100th meridian *memorialis* Banks

SUBGENUS *TONCAHUA* PATE

Toncahua Pate 1944: 341. Generotype *Craebro texanus* Cresson 1887, original designation.

**1. occidentalis****2. dinocerus****3. occidentalis****4. alaris****5. dinocerus****6. dinocerus****7. occidentalis****8. alaris****9. occidentalis****10. dinocerus**

Figs. 1-10. Species of *Entomognathus*. 1 ($\times 37$), 2 ($\times 18$), front view of head. 3 ($\times 25$), 4 ($\times 25$), 5 ($\times 12$), cellular area of forewing. 6 ($\times 18$), clypeus from above. 7 ($\times 37$), 8 ($\times 25$), mesopleuron. 9 ($\times 50$), mandible, side view. 10 ($\times 25$), mandible and end of occipital carina, side view.

Florkinis Leclercq 1956: 2. Generotype *Encopognathus evolutionis* Leclercq 1956, original designation.

The 13 species agree in the following characters: ocelli in a low triangle, male flagellum with 10 articles (male of *coloratus* unknown), clypeus with apical bevel ending in four to six teeth but no projections from upper margin of bevel, forewing recurrent reaching at or slightly before middle of marginal cell (Fig. 3), T-III-IV posterior margins broadly incurved, males customarily with flagellar articles whitish beneath, body length less than 10 mm.

Entomognathus (Toncahua) alaris

R. Bohart, NEW SPECIES

Figs. 4, 8

Female holotype. Length 6.0 mm. Black, marked with pale yellow as follows: scape in front, mandible basally, pronotum all across including lobes, tegula in front, scutellum, metanotum, prepectal spot, forefemur and midfemur distally, all tibiae and basitarsi outwardly, large lateral spots (ivory yellow) on T-I to T-V; flagellum yellowish beneath, S-VI reddish brown, basal 0.75 of forewing (Fig. 4) and all of hindwing brown. Pubescence of head (including eyes) pale. Most body surfaces polished, punctuation sparse, a little thicker on T-V. Mandible sharply incised basoventrally (as in Fig. 9); polished clypeal bevel elliptical (as in Fig. 1), $0.4\times$ as long as clypeus whose medial apex has six small teeth; antennal sockets separated by a socket diameter, a little closer to eye; supraorbital fovea indistinct; prescutellar groove foveolate; omaulus raised sharply, adjacent to narrow foveolate groove (Fig. 8); acetabular carina present; pygidial plate angled at 45° , moderately silvery setose.

Male. Length 5.0–6.0 mm. Sculpture and markings about as in female. Prepectal spot may be small, band on collar ridge may be broken medially, metanotum may be mostly black, T-VII and S-VII reddish brown;

T-VI closely punctate; clypeal apex with four apical teeth, bevel small.

Holotype female (DAVIS), Willcox, Cochise Co., Arizona, VIII-24-74 (R. M. Bohart). Paratypes, Arizona: ♂ (DAVIS) same data as holotype; 2 ♂ (CORVALLIS), 8 mi n. Douglas, Cochise Co., VII-31-46 (H. A. Scullen); ♀ (DAVIS), 28 mi n. Douglas, Cochise Co., VIII-2-78 (R. W. Brooks); ♀ (NEW YORK), 25 mi se. Saunders, Apache Co., VIII-14-72 (J. G. Rozen, R. McGinley); ♂ (NEW YORK), 11 mi s. Apache, Cochise Co., VIII-10-73 (M. Favreau); ♀ (SAN FRANCISCO), 4 mi sw. Forestdale, Navajo Co., VIII-24-52 (H. B. Leech). Other paratypes: New Mexico: ♀ (DAVIS), VIII-23-64 (M. A. Cazier, *et al.*); ♂ (DAVIS), 18 mi n. Rodeo, IX-7-76 (R. M. Bohart). Colorado: ♂ (WASHINGTON), (C. F. Baker); ♀ (DAVIS), Great Sand Dunes Monument, Alamosa Co., VII-3-76 (H. E. Evans); Texas: ♂ (DAVIS), Kingsville, Kleberg Co. III-20-72 (J. E. Gillaspay); 4 ♀ (SAN FRANCISCO, DAVIS), 20 mi. se. Kingsville, Kleberg Co., V-4-85 (W. J. Pulawski); ♀ (SAN FRANCISCO, DAVIS), Junction, Kimble Co., IV-24-86 (W. J. Pulawski); ♂♀ "Tex." (WASHINGTON); Kansas: ♀ (WASHINGTON) Reno Co., VII-12-60; Wyoming: 2 ♂ (WASHINGTON, DAVIS), Glendo, VII-13-60 (R. J. Lavigne); Mexico: Jalisco: ♀ (DAVIS), (Crawford); Durango: 3 ♂, ♀ (DAVIS), 20 mi w. Durango, VI-17-64 (D. Bolinger); ♂ (CORVALLIS), 76 mi s. Durango, VI-16-56 (H. A. Scullen).

The moderate size, distinct omaulus, with adjacent foveolate groove, bicolored wings, yellow prepectal spot and extensively yellow pronotal collar and often scutellum, characterize the species. The bicolored wings and prepectal spot distinguish it from *memoralis*.

Entomognathus (Toncahua) apache

R. Bohart, NEW SPECIES

Female holotype. Length 4.5 mm. Black, marked with whitish yellow as follows: scape

in front, mandible mostly, pronotal collar except medially, pronotal lobe, tegula partly, lateral scutellar spot extending to hindwing base, postlateral metanotal edge, femora distally, fore- and midtibiae mostly, hindtibia basally, basitarsi, small lateral spots on T-I to IV; wings clear; clypeal bevel and mandible tip dark red, pygidial plate rust red. Pubescence pale. Punctuation fine, scattered over upper frons, mesonotum, and mesopleuron, which are, however, polished overall; terga lightly punctate, polished; S-II rather closely punctate but shiny; propodeum posteriorly granulate but enclosure areolate, laterally granulate but a little shiny. Mandible sharply incised basoventrally; polished clypeal bevel subtriangular, 0.6 as long as clypeus which has six weakly defined apical teeth; antennal sockets 1.0 diameter apart, 0.5 diameter from eye; supraorbital fovea present, narrowly oval; pronotal collar rounded over; omaulus present but adjacent foveolate groove indistinct; prescutellar groove finely foveolate; pygidial plate angled at 45°, densely silvery setose.

Male. Length 2.5 mm. Sculpture, punctuation, and pale markings about as in female except: terga all black, pronotum black except lobes, scutellum black (lateral pale lines present).

Holotype female (NEW YORK), 13 mi sw. Apache, Cochise Co., Arizona, VIII-21-71 (J. Rozen, M. Favreau). Paratypes: ♀ (SAN FRANCISCO), Baja California Sur, 9 km se. Santa Rita, VIII-25-77 (E. Fisher, R. Westcott); ♀ (DAVIS), Dateland, Arizona, VII-5-56 (G. Butler); ♂ (NEW YORK), near Rodeo, New Mexico, VIII-25-71 (J. Rozen and M. Favreau); ♂♂, ♀ (DAVIS, TUCSON), Roll, Arizona, VIII-21-54 and X-6-56 (D. Tuttle, G. Butler); ♂ (DAVIS), Ceballos, Durango, Mexico, X-19-68 (G.E. Bohart); ♂ (DAVIS), 20 mi. s. Estacion Llano, Sonora, Mexico, VIII-17-64 (M.E. Irwin).

This species is similar to *arizonae* but the mesonotum and mesopleuron of *apache* are

more polished, and the clypeal bevel is subtriangular rather than broadly oval.

Entomognathus (Toncahua) arizonae

R. Bohart, NEW SPECIES

Female holotype. Length 4.0 mm. Black, marked with whitish yellow as follows: scape in front, mandible basally, pronotal collar laterally, pronotal lobe, tegula partly, lateral scutellar spot, femora distally, tibiae outwardly, tarsi mostly, small lateral spots on T-I-II; wings clear, abdominal segment VI reddish brown. Pubescence pale. Punctuation fine and extensive; vertex, scutum, propodeum laterally, dull; terga and S-II with many punctures, somewhat shiny. Mandible sharply incised basoventrally; polished clypeal bevel semicircular, 0.5 as long as clypeus whose medial apex has six small teeth, most lateral one sharp; antennal sockets 1.0 diameter apart, 0.5 diameter from eye; supraorbital fovea indistinct; prescutellar groove finely foveolate; no distinct omaulus or adjacent foveolate groove at front of pubescent prepectus; acetabular carina present; pygidial plate angled at 45°, moderately silvery setose.

Male. Length 3.0 mm. Sculpture, punctuation, and pale markings about as in female. Mandible often mostly whitish, flagellum mostly whitish yellow beneath, tegula and post-tegula partly yellow, terga without yellow spots, T-VI closely punctate.

Holotype female (DAVIS), 28 mi n. Douglas, Cochise Co., Arizona, VIII-II-78 (R. W. Brooks). Paratypes (all from Cochise Co., Arizona): 3 ♂ (DAVIS, SAN FRANCISCO, WASHINGTON), same data as holotype; ♂ (NEW YORK) 13 mi sw. Apache, VIII-14-74 (J., B., and K. Rozen); 2 ♂ (DAVIS, NEW YORK), 13 mi sw. Apache, VIII-20-71 (J. & D. Ehrenfeld). Other paratypes: ♂ ♀ (DAVIS, WASHINGTON), Phoenix, Maricopa Co., Arizona; ♂ (TUCSON), Avra valley, Arizona, VII-6-55 (G. Butler, F. Werner); ♂ (SAN FRANCISCO), 7 mi. s. Quartzite, Yuma Co., X-1-82

(W. J. Pulawski); ♂ (SAN FRANCISCO), 3 mi. w. Superior, Pinal Co., VII-12-85 (W. J. Pulawski). Some of the paratypes were collected on *Helianthus annuus*, others on *Euphorbia albomarginata*.

This small species (3.0–4.0 mm long) has the upper frons, vertex, mesonotum, mesopleuron, and terga extensively punctate; the propodeal base not polished laterally; and the wings not stained. A somewhat similar species is *arenivagus* Krombein but it has the mesopleuron polished and its wings are dusky.

Entomognathus (Toncahua) coloratus

R. Bohart, NEW SPECIES

Female holotype. Length 3.0 mm. Black, pale yellow, and rust red; whitish yellow are: scape, mandible on basal half, pronotal collar to lobe (all across), tegula partly, post-tegula mostly, scutellum and metanotum (nearly all white), femora distally, tibiae outwardly, lateral spots on T-I to IV, T-V mostly; rust red are: femora mostly, sterna, terga except for pale spots; wings lightly, evenly stained. Pubescence pale. Punctuation fine and scattered on head, scutum, mesopleuron, and abdomen, but these areas polished overall; propodeum shiny laterally. Mandible sharply incised basoventrally; polished clypeal bevel crescentic, $0.3\times$ as long as clypeus whose medial apex has six small teeth, most lateral one largest; antennal sockets about 0.7 diameter apart, 0.7 diameter from eye; supraorbital fovea distinct; prescutellar groove foveolate; omaulus weakly developed, adjacent to a foveolate groove; acetabular carina present; pygidial plate angled at 45° , moderately silvery setose.

Holotype female (DAVIS), 1 mi. e. Douglas, Cochise Co., Arizona, VIII-12-62 (M. A. Cazier). Paratypes: 2 ♀ same data as holotype; ♀ (NEW YORK), 4 mi. e. Animas, Hidalgo Co., New Mexico, VIII-24-74 (J. Rozen, M. Favreau).

The presence of an omaulus and adjacent

groove on this small species together with the extensive rust-red abdominal coloration differentiate *coloratus* from other known members of the genus in North America. Also remarkable are the entirely whitish scutellum and metanotum, along with an all-dark clypeus.

Entomognathus (Toncahua) guerreroi

R. Bohart, NEW SPECIES

Female holotype. Length 7.0 mm. Black, marked with deep yellow as follows: scape in front, mandible basally, inner streak on foretibia and midtibia, inner distal spot on hindtibia, large lateral spots which are attenuate medially on T-I to III, T-IV-V mostly; reddish brown are: scape partly, pronotal lobe, tegula, post-tegula; wings moderately brown stained, lighter basad. Pubescence silvery on face, off-silvery on terga, microsetae dark and plentiful on wing cells. Punctuation faint, most body areas polished, including propodeum anterolaterally. Mandible incised basoventrally; clypeal bevel not polished, irregular above, $0.5\times$ as long as clypeus whose medial apex has six small teeth; antennal sockets 1.0 diameter apart, 0.5 diameter from eye; prescutellar groove with a single median divider, not foveolate; omaulus represented by a sharp edge at front of prepectus, no adjacent foveolate groove; acetabular carina present; pygidial plate angled at 45° , densely pale-golden setose.

Male. Length 5.0–6.0 mm. Sculpture about as in holotype, yellow markings often more extensive: clypeal midlobe, four pronotal spots, two spots on scutellum, tibiae and tarsi mostly, band across T-I, T-VI entirely. Some paratype males nearly as dark as type female; clypeal bevel less pronounced; and wings a little lighter.

Holotype female (DAVIS), 9 mi s. Tierra Colorado, Guerrero, Mexico, VII-21-63 (F. D. Parker and L. A. Stange). Paratypes (all from Guerrero, Mexico): 6 ♂ (DAVIS, SAN FRANCISCO, WASHINGTON), same

data as holotype; ♀ topotype (LAWRENCE), VIII-5-51; 3 ♂ (DAVIS), Acapulco, VII-19-63 (F. D. Parker and L. A. Stange).

M. guerreroi is similar to *texanus* in size, but averaging a little smaller. Also, the form of the prepectus, polished vertex, scutum, and mesopleuron are much the same. A striking difference is the deep-yellow of the markings in *guerreroi* rather than the ivory-yellow of *texanus*. In female mandibles the basoventral emargination is much more pronounced in *guerreroi*. Furthermore, the clypeal bevel of female *guerreroi* is less polished and topped by a series of small bumps. In *texanus* the bevel is more polished and topped by a simple angle. The type series of *guerreroi* all have the prescutellar groove divided into two chambers, whereas in *texanus* it has five or six foveolae.

Entomognathus (Toncahua) occidentalis

R. Bohart, NEW SPECIES

Figs. 1, 3, 7, 9

Female holotype. Length 8.0 mm. Black, marked with whitish yellow as follows: scape, basal half of mandible, median clypeal lobe, pronotal collar all across, pronotal lobe, tegula mostly, post-tegula laterally, scutellum, femora distally, tibia and basal three tarsomeres outwardly, T-I with subapical band, broken medially, large lateral spots on T-II-III, band on T-IV, median spot on T-V; wings lightly stained, becoming clear basad. Pubescence of head (including eyes) pale. Punctuation fine but extensive on head, thorax, S-II, S-V, these areas shiny but hardly polished; T-I to IV, S-III-IV polished with little punctuation. Mandible sharply incised basoventrally (Fig. 9); polished clypeal bevel elliptical, $0.33 \times$ as long as clypeus whose medial apex has six small teeth; antennal sockets about 1.0 diameter from eye and each other; supra-orbital fovea present but weak; prescutellar groove not foveolate; omaulus absent, widest point of thorax sharply rounded but not carinate and no adjacent foveolate groove

(Fig. 7); no acetabular carina; pygidial plate angled at 50° , moderately coppery setose.

Male. Length 5.0–7.0 mm. Sculpture and markings about as in female. Hindtibia with large brown outer spot, apex of median clypeal lobe with four teeth, T-I with complete yellow band.

Holotype female (DAVIS), Ash Mountain, Tulare Co., California, VI-26-83 (J. A. Halstead). Paratypes (all from California): 2 ♂ (DAVIS, WASHINGTON), topotypical but taken VI-12-83 and VI-19-83 (D. J. Burdick); 2 ♂ (DAVIS), Borrego Valley, San Diego Co., IV-19-57 (J. C. Hall); 2 ♂ (DAVIS), near Darwin Falls, Inyo Co., V-8-58 (E. G. Linsley) and V-12-69 (J. Powell); ♂ (DAVIS), Warthan Canyon Road, Fresno Co., I-19-81 (N. J. Smith); ♂ (DAVIS), 8 mi. ne. Auberry, Fresno Co., VI-11-81 (N. J. Smith); ♂ (DAVIS) near Santa Margarita, San Luis Obispo Co., V-22-58 (E. G. Linsley) and VI-8-62 (P. D. Hurd); ♂ (DAVIS), Carrizo Creek, Riverside Co., V-31-63 (E. I. Schlinger); ♂ (SAN FRANCISCO), Potwisha, Sequoia National Park, Tulare Co., VII-1-41 (E. C. Van Dyke). Other paratypes, 4 ♂ (SAN FRANCISCO, DAVIS), Candelaria, Mineral Co., Nevada, VI-23-52 (J. P. Figg-Hoblyn).

The sharply rounded front margin of the prepectus, without an omaulus or adjacent groove (Fig. 7), and the extensive but moderate punctuation on the head and thorax, characterize the species. The absence of an anterior prepectal groove occurs also in *texanus* and *guerreroi*, but these species have the prepectus sharp anteriorly, and the mesopleuron polished. Also remarkable is the simple, rather than foveolate, prescutellar groove in *occidentalis*. The male paratypes from Nevada have slightly denser punctuation on the mesopleuron and scutum than California specimens.

Subgenus *Entomognathus* Dahlbom
(1844: 295)

Entomognathus dinocerus, described below, is the first record in the New World of

a species in the typical subgenus. The posterior margins of T-III and T-IV are straight. A possibly important difference from *E. brevis* Vander Linden, the generotype, is that the recurrent vein of the forewing reaches the marginal cell slightly but definitely beyond its middle (Fig. 5).

Entomognathus (Entomognathus) dinocerus

R. Bohart, NEW SPECIES

Figs. 2, 5, 6, 10

Female holotype. Length 13 mm. Black, marked with deep yellow as follows: scape in front, two elongate spots on pronotal collar, pronotal lobe, scutellum mostly, metanotum laterally, femora mostly, tibiae and tarsi, lateral spots on T-I to V, those on I separated by 4.0 MOD, irregular band on S-II; reddish brown are: mandible medially, tegula, post-tegula; wings dark brown (Fig. 5). Pubescence off-silvery on lower face, mesopleuron; fulvous on upper face, vertex, scutum, T-IV-V; microsetae of wing cells black. Punctuation fine, sparse, body extensively polished. Mandible weakly indented basoventrally (Fig. 10), occipital carina toothed apically; clypeal bevel lenticular, surface irregular, shiny, 0.5× as long as clypeus, upper edge with a pair of stout, porrect lobes, lower edge with six irregular teeth, lateral ones large; antennal sockets separated by 1.3 socket diameter, 0.5 diameter from eye; scutum with long, well-marked median groove, notauli, and shorter parapsidal lines; prescutellar groove with four foveolae; omaulus sharply raised, adjacent to a foveolate groove; acetabular carina absent; recurrent vein of forewing reaching marginal cell beyond its middle

(Fig. 5); T-II-III-IV posterior margins straight; pygidial plate angled at 50°, densely golden setose.

Holotype female (DAVIS), Alpuyeca, Morelos, Mexico, VII-3-51 (P. D. Hurd).

In this unusually large species, the tooth at the end of the occipital carina, and the projections on the dorsal rim of the clypeal bevel are reminiscent of some dinosaur fossil heads, hence the specific name. Also unusual are the dark brown wings, grooved scutum, and slightly distal position of the recurrent vein (Fig. 5). The weak indentation of the mandible basoventrally (Fig. 10) is found also in *texanus*, where it is less pronounced.

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