Protodasyapha (*Curumyia*) *lugens* (Philippi)

A single additional ♂ in the collection of L. L. Pechuman has been seen. It is labelled "Chile, Linares, Estero De Leiva, 8/12-I-1953, Peña coll."

Chaetopalpus annulicornis (Philippi)

A single ♂ from "Ercilla, 22-XII-1949, J. Levis R. coll." is smaller than any previously seen. It has a wing length of 5.5 mm, and is somewhat paler than usual. The anterior borders of the abdominal tergites have narrow gray margins with gray hairs. The antennae show 5 well-differentiated, apical annuli in the flagellum and pseudoannulations basally. However, the genitalia show no differences from *C. annulicornis*. Due to the great morphological variation in this species, we do not believe it advisable to separate this specimen as a distinct taxon.

We thank Miss Nelida Caligaris for making the accompanying figures.

A NEW SPECIES OF WATER MITE[1] PARASITIZING THE BACKSWIMMER *BUENOA SCIMITRA*[2]

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ABSTRACT

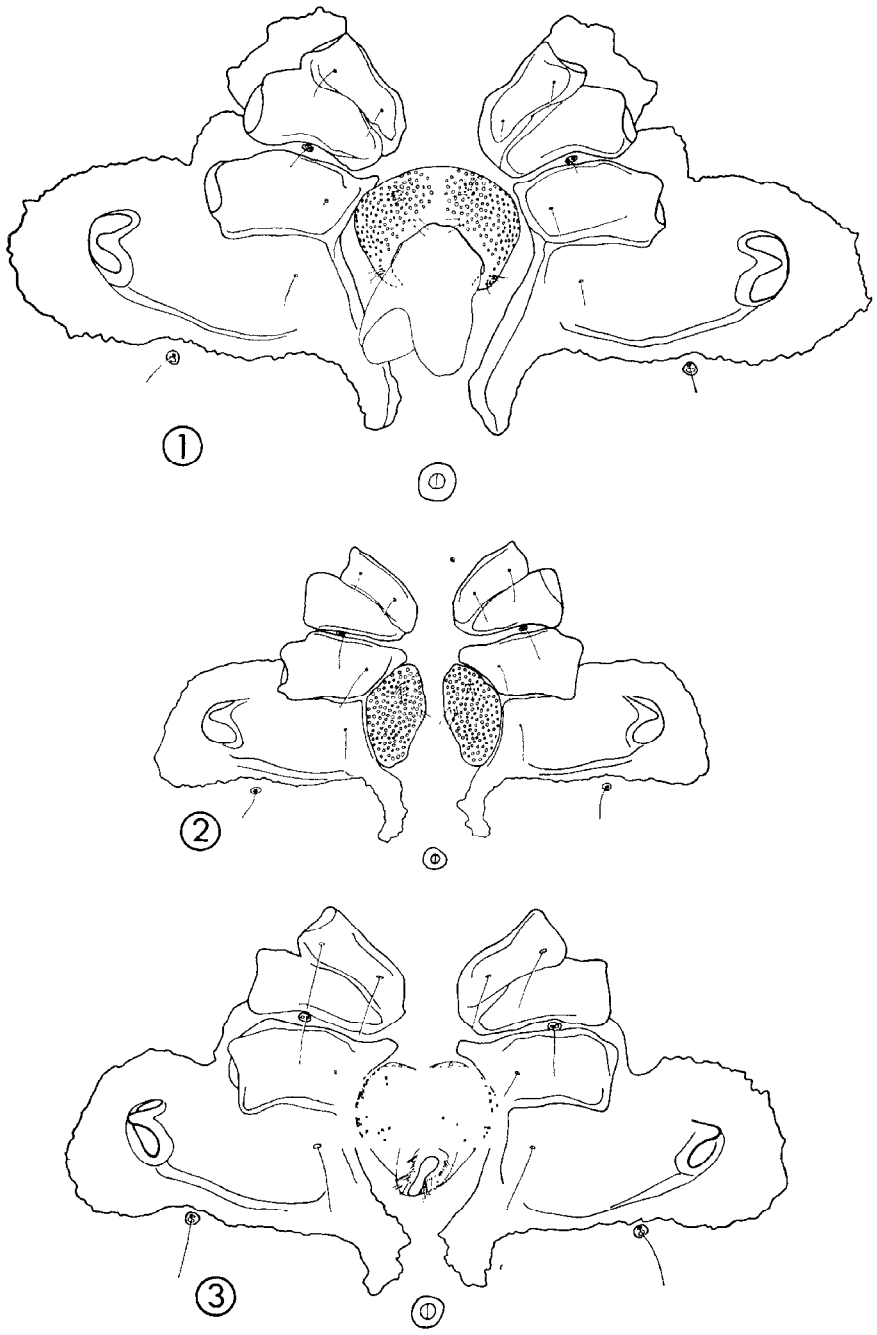
Hydrachna virella (Acari: Hydrachnellae), a new species of water mite that parasitizes backswimmers of the species *Buenoa scimitra* Bare (Hemiptera: Notonectidae), is described. Adults and nymphs are characterized by a pronounced elongation of the posteromedial portion of the 4th coxae. Larvae are distinguished by the relative sizes of the coxal plates and by the positions and relative sizes of the coxal plate setae.

Water mites of the genus *Hydrachna* are common, usually red mites that inhabit mostly standing bodies of water. The nymphs and adults are predatory on insect eggs (Davids 1973, Lanciani 1978) but the larvae are ectoparasitic on aquatic Coleoptera and Hemiptera (Smith and Oliver 1976). This paper presents information on a new species of *Hydrachna* (subgenus *Hydrachna*) that parasitizes backswimmers of the genus *Buenoa*.

Measurements, except those on the body dimensions of live mites, were made on a sample of 5 specimens. The mean is presented first and is followed in parentheses by the minimum and maximum values.

Holotypes, allotypes, and paratypes have been deposited in the Florida State Collection of Arthropods, Gainesville, FL.

[1]Acari: Hydrachnellae.
[2]Hemiptera: Notonectidae.



Figs. 1-3. *Hydrachna virella* Lanciani, new species. 1) venter of ♀; 2) venter of nymph; 3) venter of ♂.

Hydrachna virella Lanciani, NEW SPECIES

MALE: (Figs. 3, 4, and 8). Color of live mite usually green but occasionally red; live mite 1700μ (1500-1930μ) long and 1520μ (1360-1780μ) wide just after metamorphosing to adult stage (sample size =N= 4).

Length between anterior end of 1st coxa and posterior end of 4th coxa 725μ (591-806μ); posteromedial portion of 4th coxa greatly extended; chaetotaxy of coxae as in Fig. 3; genital field 244μ (203-274μ) long and 266μ (228-304μ) wide, with many acetabula and small setae, with a conspicuous projection surrounding the gonopore.

Dorsum with a single anterior plate 712μ (524-883μ) long and 1030μ (823-1300μ) wide; chaetotaxy of dorsal plate as in Fig. 4, but pair of setae in membrane adjacent to plate is incorporated into plate in some specimens.

Proportions and chaetotaxy of palp as in Fig. 8, but number of setae on P-I varying from 1 to 2 and number on P-II varying from 6 to 8; dorsal setae on P-II finer than corresponding setae of ♀; dorsal lengths of palpal segments: P-I, 191μ (155-225μ); P-II, 134μ (107-153μ); P-III, 150μ (130-165μ); P-IV, 71μ (61-80μ); P-V, 38μ (35-41μ); chelicera 647μ (585-696μ) long.

FEMALE: (Figs. 1, 6, and 10). Color of live mite usually green but occasionally red; live mite 1900μ (1780-2040μ) long and 1740μ (1660-1810μ) wide just after metamorphosing to adult stage (N= 3) but growing to at least 2500μ long and 2270μ wide in nature.

Length between anterior end of 1st coxa and posterior end of 4th coxa 771μ (657-867μ); posteromedial portion of 4th coxa greatly extended; chaetotaxy of coxae as in Fig. 1; genital field 203μ (168-221μ) long and 315μ (268-353μ) wide, with many acetabula and small setae.

Dorsum with a single anterior plate 842μ (795-938μ) long and 1124μ (983-1325μ) wide; chaetotaxy of dorsal plate as in Fig. 6, but pair of setae in membrane adjacent to plate is incorporated into plate in many specimens.

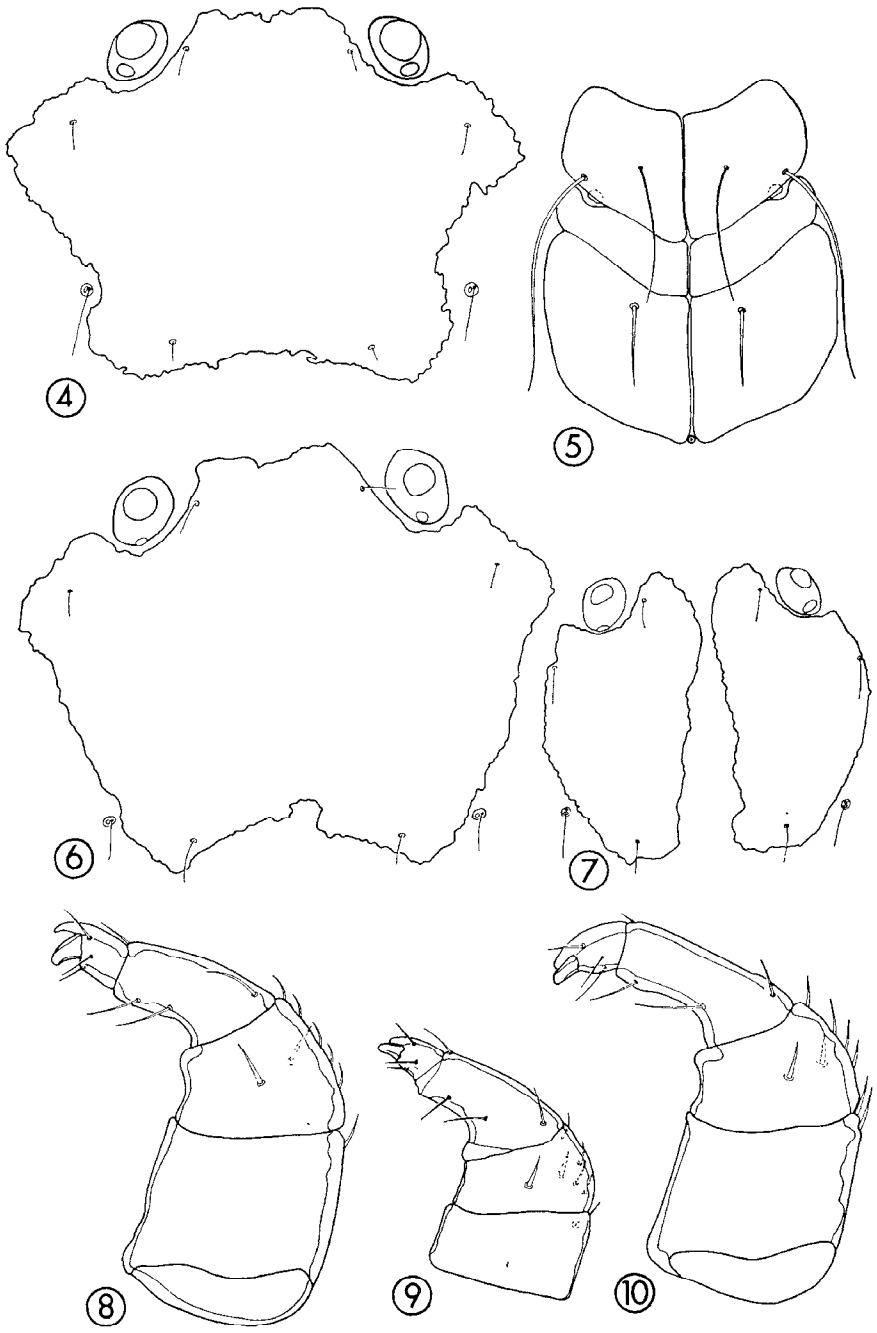
Proportions and chaetotaxy of palp as in Fig. 6, but number of setae on P-I varying from 1 to 2 and number on P-II varying from 6 to 10; all but the most distal 1 of dorsal setae of P-II much thicker than corresponding setae of ♂; dorsal lengths of palpal segments: P-I, 200μ (168-236μ); P-II, 122μ (108-146μ); P-III, 190μ (168-214μ); P-IV, 77μ (68-87μ); P-V, 38μ (34-41μ); chelicera 708μ (635-715μ) long.

NYMPH: (Figs. 2, 7, and 9). Color of live mite green; live mite 1120μ (770-1630μ) long and 940μ (640-1400μ) wide just after emerging from host (N = 26).

Length between anterior end of 1st coxa and posterior end of 4th coxa 553μ (442-690μ); posteromedial portion of fourth coxa greatly extended; chaetotaxy of coxae as in Fig. 2; immature genital field composed of 2 separate acetabular plates, each having a length of 189μ (160-226μ) and a width of 111μ (89-144μ).

Dorsum with 2 anterior plates, each having a length of 510μ (420-718μ) and a maximum width of 260μ (204-403μ); chaetotaxy of dorsal plates as in Fig. 7, but 2nd pair of setae located in membrane instead of plate in 1 specimen.

Proportions and chaetotaxy of palp as in Fig. 9, but number of setae on P-II varying from 6 to 7; dorsal lengths of palpal segments: P-I, 107μ (87-



Figs. 4-10. *Hydrachna virella* Lanciani, new species. 4) dorsal plate of ♂; 5) venter of idiosoma of larva; 6) dorsal plate of ♀; 7) dorsal plates of nymph; 8) left palp of ♂; 9) left palp of nymph; 10) left palp of ♀.

155μ); P-II, 88μ (81-98μ); P-III, 141μ (125-163μ); P-IV, 55μ (47-65μ); P-V, 28μ (23-35μ); chelicera 511μ (458-607μ) long.

LARVA: (Fig. 5). Length of idiosoma 198μ (182-203μ); length of gnathosoma 142μ (133-149μ); length of coxal plates along midline: I, 49μ (47-50μ); II, 22μ (19-23μ); III, 59μ (57-61μ); positions and sizes of coxal plate setae as in Fig. 5.

HOLOTYPE: Adult ♂, reared from the host insect *Buenoa scimitra* Bare collected from a temporary pond in Gainesville, FL on 13-V-1978.

ALLOTYPE: Adult ♀, same data as holotype.

PARATYPES: 1 ♂, same data as holotype; 1 ♀, offspring of parents reared from *Buenoa scimitra* collected from a temporary pond in Gainesville, FL on 13-V-1978.

HABITAT: Ponds.

HOST: Parasitic larvae were found in nature attached to a variety of sites on the notonectid *Buenoa scimitra*. In the laboratory, the larva also successfully developed on *B. confusa* Truxal.

DIAGNOSIS: *Hydrachna virella* can be distinguished from other North American species of the subgenus *Hydrachna* by the posteromedial elongations of the 4th pair of coxae in nymphs and adults and by the pronounced projection surrounding the male gonopore. The only other known species of this subgenus possessing the elongated 4th coxa is *H. analis* Viets, a species described by Viets (1935) from Sumatra on the basis of nymphal characteristics. The nymph of *H. virella* differs from that of *H. analis* in having much larger acetabular plates.

The diagnostic importance of the larval coxal plates of *Hydrachna* has been emphasized by Davids (1973). Although the larva of *H. virella* is somewhat similar to that of *H. magniscutata* Marshall (Prasad and Cook 1972) and *H. cruenta* Müller (Davids 1973) in ventral aspect of the idiosoma, it can be distinguished from the larvae of these and other species by the relatively large size of the 3rd pair of coxal plates, the relatively small size of the 2nd pair of coxal plates, and the size and position of the coxal plate setae.

ACKNOWLEDGMENTS

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