INSECTS OF MICRONESIA
Heteroptera: Enicocephalidae[1]

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INTRODUCTION

Enicocephalidae, or gnat bugs, are perhaps the most unique of all Heteroptera. The wings are not heteropterous at all but are totally membranous. The head is long and usually strongly bilobed with compound eyes on the front lobe and ocelli on the hind lobe.

Enicocephalids were formerly grouped with reduviids [Reuter, 1910, Acta Soc. Sci. Fenn. **37** (3) : 1-171] but are now recognized as distinct from Reduvioidea on the bases of different venation, eggs without caps, distinct male genitalia, and other characters. The true position of Enicocephalidae in the phylogenetic system of Hemiptera is not known.

The biology of Enicocephalidae has been summarized in two monographs (Jeannel, 1941, Soc. Ent. France, Ann. **110**: 273-368; Usinger, 1945, Ent. Soc. Am., Ann. **38**: 321-342) and further details are given by Carayon [1950, Mus. Nat. Hist. Natur. Paris, Bull. II, **22** (6) : 739-745; 1951, Soc. Ent. France, Bull. **1951**: 39-41]. The essential points are as follows: Nymphs and adults occur under stones, beneath bark, and in rotten logs, and in humus in the soil. They are predaceous and apparently polyphagous. Their most striking habit is their swarming, which takes place usually in the afternoon and commonly during or after rains. The swarms are exactly like those of chironomid midges and not unlike those of may flies and some other insects. Both sexes swarm.

Apterous Enicocephalidae were first recorded by Enderlein (1904, Zool. Anzeiger **27**: 783-788) for a curious genus found on Crozet Island by the German South Polar Expedition. Recently, other apterous forms have been

[1] This represents, in small part, Results of Professor T. Esaki's Micronesian Expeditions (1936-1940), No. 102.

described by Woodward [1956, Roy. Soc. New Zealand, Trans. **84** (2) : 391-430] in New Zealand. Also, a dimorphic genus, *Alienates,* was described by Barber (1953, Am. Mus. Nov. **1614**: 1-4) from Bimini Island.

Two types of wing polymorphism are seen in the Micronesian collections: One, a simple type of brachyptery (*Oncylocotis*); the other, an interesting case of sexual dimorphism (*Nesenicocephalus*). In the latter case, the males are fully macropterous, whereas the females have no wings. Since the thorax is normally developed, it is possible that the wings are shed. (We have seen such shedding of wings in a South American enicocephalid, upon which we shall report in detail in another publication.)

The illustrations for this paper were drawn by Wygodzinsky from specimens in liquid, as the hairs are apt to hide the true outlines of the body parts when dry. Furthermore, in these generally soft-bodied insects, dry specimens have a tendency to shrink. Coloring, however, should be examined and described in dry specimens.

The United States Office of Naval Research, the Pacific Science Board (National Research Council), the National Science Foundation, and Bernice P. Bishop Museum have made this survey and publication of the results possible. Field research was aided by a contract between the Office of Naval Research, Department of the Navy, and the National Academy of Sciences, NR 160-175.

The following symbols indicate the institutions in which specimens are stored: US (United States National Museum), BISHOP (Bishop Museum), KU (Kyushu University), and CM (Chicago Natural History Museum).

The formula 1 + 1, 3 + 3, et cetera, used in keys and descriptions refers to spines or bristles bilaterally arranged, 1, 3, et cetera, on each side.

DISTRIBUTION

Enicocephalids are rare in collections and are generally overlooked, even in such regions as the Hawaiian Islands and Europe, where the insect fauna is well known. Therefore, generalizations based on the not very numerous specimens of two genera and four species now known from Micronesia are not justifiable. All that can be said is that *Oncylocotis* is a tropicopolitan genus with its greatest development in Africa, the Orient, and Australasia and with a few species in Central and South America. One species is known from Fiji, and several have been described from New Guinea, the Philippines, and neighboring islands. *Nesenicocephalus* is more restricted, with one species in the Hawaiian Islands, one in the Philippine Islands, and an undescribed species before us from New Guinea. Present knowledge indicates that within Micronesia each *Oncylocotis* is a one-island endemic. *Nesenicocephalus dybasi* will likewise prove to be a one-island endemic if, as we suspect, the single female from Palau proves to represent a distinct species.

Distribution of Micronesian Enicocephalidae

	Micronesian Island Groups							
		Caroline						
	S. Mariana	Palau	Yap	Caroline Atolls	Truk	Ponape	Kusaie	
1. Nesenicocephalus dybasi*		?				X		
2. Oncylocotis swezeyi	X							
3. O. gracilis*							X	
4. O. esakii*						X		
5. O. capitonis*						X		

* Described as new.

SYSTEMATICS

Family ENICOCEPHALIDAE

Body elongate. Head bilobed. Rostrum and antennae four-segmented. Eyes and ocelli distinct in Micronesian species. Pronotum trilobed in Micronesian species, and ventrally with fore coxal cavities open behind. Prosternum without stridulatory sulcus. Front wings entirely membranous with apical discal cell closed and basal discal present (*Oncylocotis*) or absent (*Nesenicocephalus*). Scent gland orifice lacking on metapleura, a single orifice present at middle of third visible abdominal tergite. Front legs more or less incrassate, the tibiae slightly to strongly widened apically with a small projection on inner apex bearing specialized spine-like setae; similar spine-like setae also on undersurface of tarsus subapically. Front tarsi one-segmented with two claws in Micronesian species; middle and hind tarsi two-segmented with two claws.

Key to Micronesian Genera and Species of Enicocephalidae

1. Wings reduced or absent 2
   Wings complete 3
2. Wings reduced to short but distinct pads; body more than 4 mm ..... **Oncylocotis sp.**
   Wings deciduous or absent; body about 1 mm ..... **Nesenicocephalus**
3. Basal discal cell lacking; apical discal cell truncate distally, veins with one row of setae only (fig. 1, *d*); projection of fore tibia with three straight and one conspicuously curved spines, 1+1 similar, though shorter, spines on tarsus before apex (fig. 1, *g*); small, about 1 mm ..... **Nesenicocephalus dybasi**

   Basal discal cell present; apical discal cell pointed distally, veins with a double row of setae (fig. 2, *a, c*); projection of fore tibia with numerous straight spines only, similar spines on fore tarsus ventrally (fig. 2, *e*); larger, 4.5-8 mm. (*Oncylocotis*) 4
4. Fourth antennal segment distinctly longer than third (fig. 2, *a*). Small, 4.5 mm. Legs brown with knees ochraceous. Genital capsule of male subsemicircular (fig. 2, *g, i*) ..... **Oncylocotis swezeyi**

Fourth antennal segment as long as, or shorter than, third (figs. 3, *a, i;* 4, *a, g*). Larger, more than 5 mm. Legs uniformly clear brown. Genital capsule of male widest at or beyond middle (figs. 3, *h;* 4, *f, m*) 5

5. Hind lobe of head distinctly wider than long (fig. 3, *a, i*). R strongly thickened at base of stigmal cell (fig. 3, *c, k*) ..... **O. gracilis**
   Hind lobe of head not distinctly wider than long (fig. 4, *a, g*). R not thickened at base of discal cell (fig. 4, *c, i*) 6
6. Head yellowish brown, pronotum and scutellum reddish brown, in dry specimens; third segment of antennae much shorter than second, posterior lobe of head suboval in outline, when seen from above (fig. 4, *a*) ..... **O. esakii**
   Head, pronotum, and scutellum dark piceous, almost black in dry specimens; third segment of antennae as long as second, hind lobe of head subcircular in dorsal view (fig. 4, *g*) ..... **O. capitonis**

Genus **Nesenicocephalus** Usinger

Nesenicocephalus Usinger, 1939, Hawaiian Ent. Soc., Proc. **10** (2) : 268-270.

Very small, dark-colored species with relatively slender legs and with apical discal cell closed and basal discal cell absent. Males fully winged. Females with wings absent or deciduous. Venation of hind wings complete.

A tendency toward reduction of fore wing is shown not only by the lack of basal discal cell, but by the absence of free area between anal vein and wing border on posterior two-thirds of wing border.

Type species: *Nesenicocephalus hawaiiensis* Usinger.

1. **Nesenicocephalus dybasi** Usinger and Wygodzinsky, n. sp. (fig. 1).

Body slender, beset with rather sparse, fine, subadpressed, concolorous hairs.

Male: Head twice as long as wide, anterior lobe not quite so wide as posterior lobe; eyes about as wide as interocular space above, strongly approximate beneath. Posterior lobe broader than long (1 : 0.8) and very slightly widened posteriorly. Rostrum half as long as head. Antennae longer than head (1.4 : 1) ; proportion of segments 1 to 4 is 1 : 1.75 : 2.0 : 2.0.

Pronotum as long as head and only slightly wider across humeral angles than long (1.1 : 1). Proportional length of front, middle, and hind lobes is 1 : 2.25 : 1.75; proportional width, 1 : 1.6 : 2.2.

Fore wings twice as long as head and pronotum together, discal cell four times as long as wide, veins with one row of setae only. Hind wing almost as long as fore wing, its venation complete.

Legs with anterior femora one-third as thick as long, tibiae three-fourths as long as femora and about as wide at apices as thickness of femora, apically with two long, straight and one strongly curved spines. Tarsus subapically on ventral surface with 1+1 half-moon-shaped spines. Two claws, one half as long as the other. Hind femora about one-third as thick as long.

Abdominal segments distinctly sclerotized dorsally and ventrally. Genital capsule as in figure 1, *j, k;* guide faintly chitinized only, pseudosternite strongly reduced.

Color rather uniformly brownish or fulvous, the anterior lobe of head darker brown, wing membranes and appendages paler.

Size: Length 2 mm., width (pronotum) 0.35 mm.

Female: Head as in male but with eyes slightly smaller, one-half as wide as interocular space above and not nearly contiguous beneath, the interocular space ventrally about as wide as eye as seen from below. Antennal proportions 1 : 1.8 : 2.3 : 2.3.

Pronotum about as long as wide, as in male, but differently proportioned, the ratio of length of lobes at middle 1 : 3.7 : 2.0; proportional width, 1 : 1.7 : 1.9, viz, middle lobe much enlarged; entire pronotum flattened above.

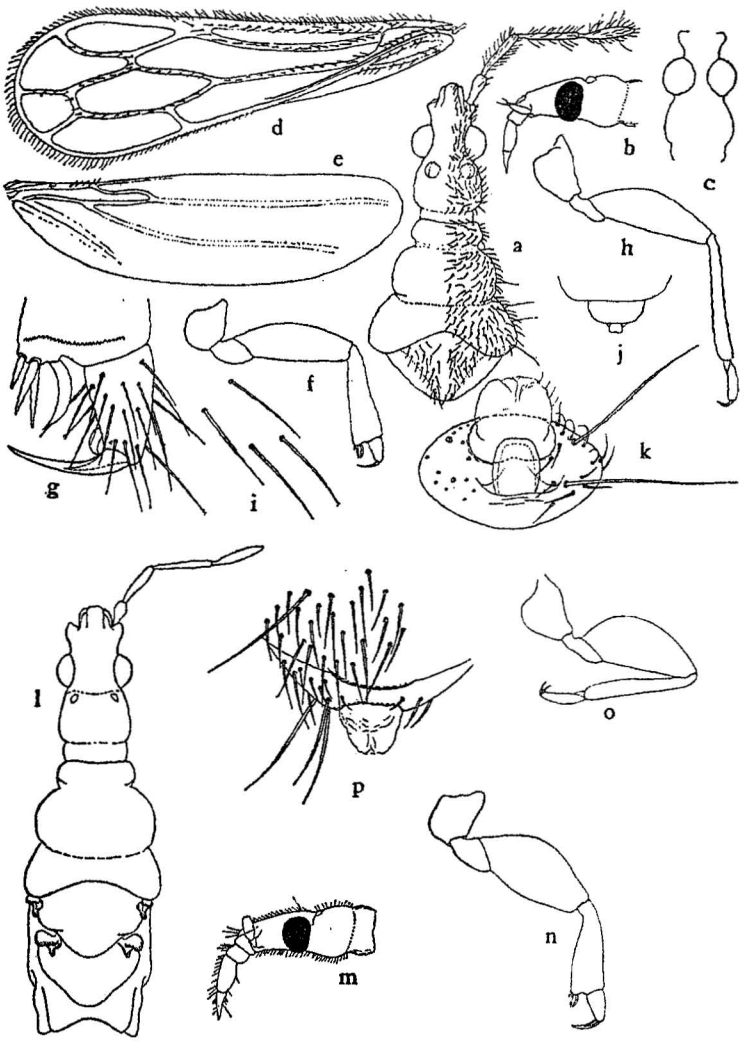

FIGURE 1.—*Nesenicocephalus dybasi.* a-k, male: *a,* head, pronotum, and scutellum, dorsal view; *b,* head, lateral view; *c,* head, seen from below; *d,* fore wing; *e,* hind wing; *f,* fore leg, outlines; *g,* apex of tibia and tarsus of fore leg; *h,* hind leg; *i,* bristles of abdominal tergites; *j,* genital region, seen from above; *k,* genital capsule, seen from behind. l-p, female: *l,* head and thorax, seen from above; *m,* head, lateral view; *n,* fore leg; *o,* hind leg; *p,* genital region, ventral view.

Meso- and metanota completely exposed. Wings lacking (apparently shed). Scutellum about one-third as long as pronotum, the sides concave and apex broad. Metanotum about as long as scutellum, with depressed area at middle and raised areas on either side converging posteriorly.

Legs incrassate, fore femora half as thick as long, tibiae one-third as wide at apices as long. Hind femora also incrassate, half as thick as long.

Abdomen membranous. Center of last sternite slightly salient, its margin somewhat more chitinized.

Color much as in male but with last two antennal segments white, and saclike abdomen pale-colored.

Size as in male.

Holotype, male (US 64520), Ponape, north slope, Mt. Kupwuriso, 300-450 m., Mar. 11, 1948, beating vegetation, Dybas. Allotype, female, Mt. Temwetemwensekir, 150-450 m., Mar. 23, 1948, Dybas. Paratypes (CM, BISHOP), same data as for holotype but Mar. 8, 1948; female, Nanipil, Net District, Feb. 27, 1948, Dybas.

DISTRIBUTION: Caroline Is. (Ponape).

This species is named for H. S. Dybas, the assiduous collector who is personally responsible for gathering nearly all of the enicocephalids known from Micronesia. It is the smallest thus far described in the genus. *N. philippinensis* is much larger and darker with pale wing bases and reddish costal margins and has erect white hairs on head and pronotum. *N. hawaiiensis* is slightly larger and is also darker with white hairs; it differs further in the smaller eyes, longer second antennal segment, longer hind lobe of pronotum, and shorter, broader discal cell; it is only 2.5 times as long as wide.

A single wingless female is also at hand from Garakayo (Ngergoi), Palau, collected August 7, 1945, under bark, by Dybas. This specimen is similar to *N. dybasi* in most respects but has rather long white pubescence. It is not included in the paratypes. Also, a last instar nymph is before us from the east coast of Peleliu Island, Palau, collected January 26, 1948, by Dybas.

Genus **Oncylocotis** Stål

Oncylocotis Stål, 1855, Öfv. K. Vet.-Akad., Förh. **12**: 44.
Dicephalus Kirby, 1891, Linn. Soc. London, Jour. **24**: 117.
Sphigmocephalus Enderlein, 1904, Zool. Anzeiger **27**: 785.
Didymocephalus Jeannel, 1941, Soc. Ent. France, Ann. **110**: 335.

Robust species with pubescence of erect hairs. Middle lobe of pronotum with deep, median longitudinal sulcus terminating before posterior constriction in short, transverse depression. Lateral discs of middle lobe each with distinct, tripartite depression. Front wings fully developed or more or less brachypterous, but with basal discal cell present and apical discal cell closed.

Type species: *Oncylocotis nasutus* Stål.

Usinger's interpretation (1945, Ent. Soc. Am., Ann. **38**: 321-342) of this large and important genus is different from that of Jeannel (1941) and has not

been followed by Villiers in several papers of recent date. The type of *Oncylocotis* has been studied and falls well within the range of variation seen in species from diverse parts of the world. Even if this interpretation is rejected, Jeannel's name cannot be used because *Didymocephalus* Jeannel (1941) and *Sphigmocephalus* Enderlein (1904) are isogenotypic, each having as its type *Henicocephalus basalis* Westwood (= *Henicocephalus curculio* Karsch).

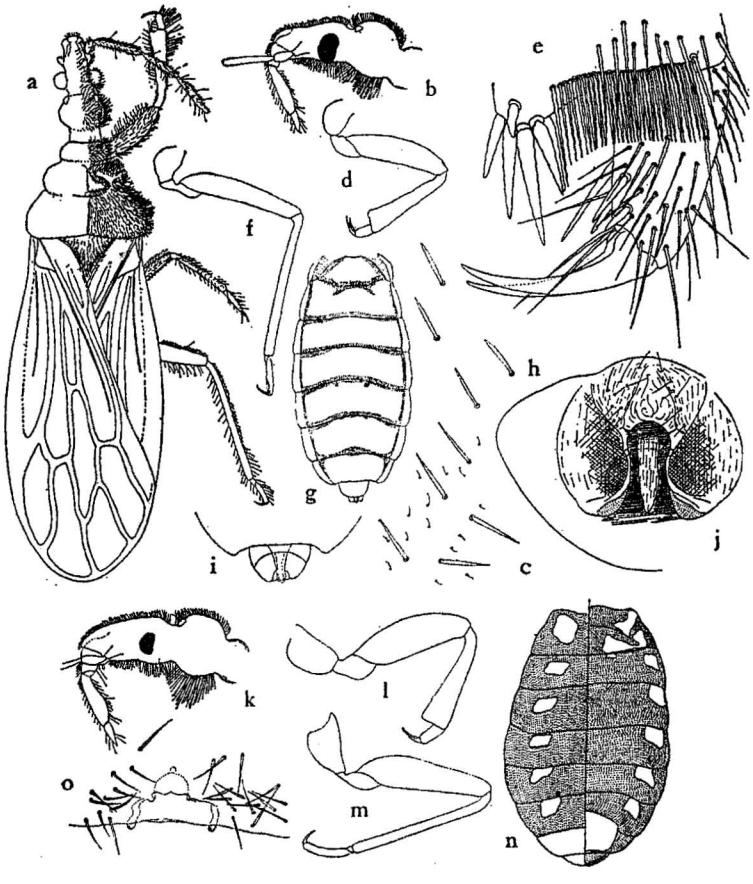

FIGURE 2.—*Oncylocotis swezeyi.* **a-j,** male: *a,* whole insect, seen from above, bristles of wings not shown; *b,* head, lateral view; *c,* setae of vein of fore wing; *d,* fore leg; *e,* apex of tibia and tarsus of fore leg; *f,* hind leg; *g,* abdomen, ventral view, membranous areas stippled; *h,* bristles of abdominal tergite; *i,* genital region, seen from below; *j,* genital capsule, seen from behind. **k-o,** female: *k,* head, lateral view; *l,* fore leg; *m,* hind leg; *n,* abdomen (dorsal surface left side, ventral right side); *o,* center of posterior border of last sternite.

2. Oncylocotis swezeyi Usinger (fig. 2).

Oncylocotis swezeyi Usinger, 1946, B. P. Bishop Mus., Bull. **189**: 39-40.

Male: Relatively short and broad (fig. 2, *a*).

Head twice as long as broad across eyes, the interocular space dorsally 2.5 times as wide as eye. Posterior lobe slightly narrower than width across eyes (0.9: 1) and definitely wider than long (1.25: 1); faintly sulcate longitudinally. Hairs of undersurface of posterior lobe much longer than those remaining (fig. 2, *b*). Antennae much shorter than head and pronotum combined, its segments rather thick, relative length of segments 1 to 4 is 1 :3.3 : 2.8 : 3.2.

Pronotum with proportional length of fore, middle, and hind lobes 1 : 1.7 : 1.5; proportional width 1 : 1.9 : 2.9.

Fore wings distinctly surpassing apex of abdomen; their venation as in figure 2, *a*. M-cu cross vein situated at basal fourth of stigmal cell. R thickened at base of stigmal cell.

Fore femora four times as long as thick, hind femora about six times as long as thick. Structure of apex of fore tibia and tarsus as in figure 2, *e;* claws slightly unequal in size.

Abdominal tergites and sternites almost completely chitinized, dark-colored. Bristles of tergites short. Genital capsule subsemicircular in outline, in dorsal or ventral view, widest at base, seen from behind, as in figure 2, *j*.

DISTRIBUTION: S. Mariana Is. (Guam).

S. MARIANA IS. GUAM: Pt. Oca, neallotype, male, June 5, 1945, Dybas; additional male, same locality, June 2, 1945, Dybas; female, same data as for neallotype; Fadang, female, May 31, 1945, Dybas; Yona, female, Oct. 1952, Krauss; Pt. Oca, male, June 1, 1945, G. Bohart and Gressitt; Mungmung, three nymphs, June 12, 1945, Gressitt; Asan, 1.6 km. southeast, 180-240 m., two nymphs, teneral adult, Nov. 1, 1947, Dybas; 16, same locality, Nov. 5, 1947, Dybas; 29, same locality, Oct. 31, 1947, Dybas.

O. swezeyi was described from a single female taken on Guam. Now, dozens of specimens are at hand from the collecting of H. S. Dybas. All specimens are from Guam except for a single micropterous female taken by R. M. Bohart on Saipan, June 29, 1951. Since the females of *O. swezeyi* Usinger consistently have wings only a little shorter than the abdomen, this specimen, with wing pads shorter than the pronotum, may represent another species.

A few characters of the macropterous female, which has not been illustrated before, are shown here (fig. 2, *k-o*). The hairs of the ventral surface of the postocular region of the head are much longer than any of the remaining hairs. The shape of the legs is shown in figure 2, *l, m*. The abdomen is largely membranous, but bears various chitinized plates; the lateral plates on sternites 3 to 7 are single. The aspect of the center of the hind margin of the last sternite is as shown in figure 2, *o*. An interpretation of the various structures observed is not offered at this time.

3. Oncylocotis gracilis Usinger and Wygodzinsky, n. sp. (fig. 3).

Male: Elongate and clothed with erect, curved hairs.

Head more than twice as long as wide across eyes, the eyes half as wide as interocular space above, and not nearly contiguous beneath. Hind lobe narrower than width of head across eyes (1: 1.1), distinctly broader than long (1.35: 1). Rostrum at rest surpassing

level of hind margin of eyes. Antennae as long as head and pronotum together, the proportion of segments 1 to 4 is 1 : 3.5 : 3.0 : 2.5. Hairs of undersurface of postocular region much longer than remaining ones.

Pronotum slightly shorter than head, proportional length of front, middle, and hind lobes 1 : 1.5 : 1.15 ; proportional width 1 : 1.75 : 2.4. Middle lobe with inverted Y-shaped impression at middle and smaller Y-shaped impression on either side, raised areas with long curved hairs in contrast to bare depressed areas. Hind lobe long and wide with feeble longitudinal carina at middle.

Scutellum about one-third as long as pronotum, blunt at apex, and with long hairs.

Fore wing half again as long as head and pronotum together, exceeding tip of abdomen, costal margins scarcely dilated subbasally. M-cu cross vein situated less than one-

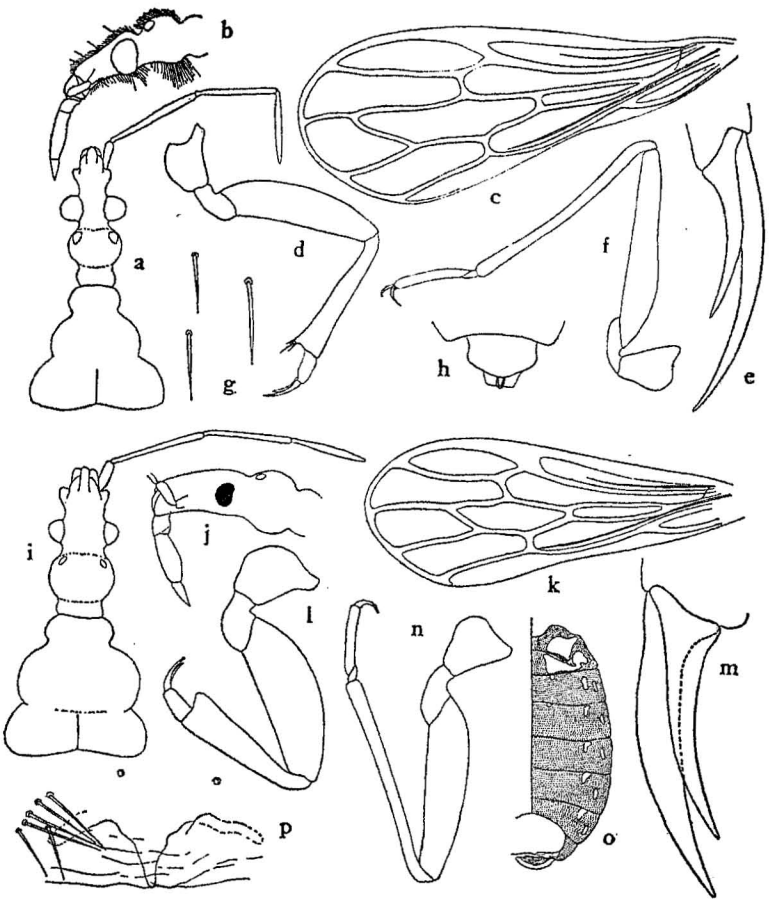

FIGURE 3.—*Oncylocotis gracilis.* a-h, male: *a,* head and pronotum, dorsal view; *b,* head, lateral view; *c,* fore wing; *d,* fore leg; *e,* claws of fore leg; *f,* hind leg; *g,* setae of abdominal tergite; *h,* genital region, seen from above. i-p, female: *i,* head and pronotum, seen from above; *j,* head, lateral view; *k,* fore wing; *l,* fore leg; *m,* claws of fore leg; *n,* hind leg; *o,* abdomen, ventral view; *p,* center of hind border of last sternite.

fourth from base of stigmal cell, much proximad of level of inner posterior angle of apical discal cell. R thickened at base of stigmal cell. Veins with two rows of curved hairs.

Legs only moderately incrassate. Fore femora slightly curved, somewhat more than four times as long as thick. Fore tibia slightly shorter than femur (0.85 : 1). Claws of fore legs conspicuously unequal in size. Hind femora 6 times as long as wide.

Abdominal sternites and tergites completely chitinized, pigmentation not very intense. Genital segment subtrapezoidal when seen from above or below, widest slightly beyond middle seen from behind as in *O. swezeyi.*

Color brown; the head, except anteriorly, pronotum at middle, and fore wings, except at base, darker brown, the rest of body and appendages light brown; legs uniformly colored.

Size: Length 5.2-5.3 mm., width of pronotum 1.1 mm., width across fore wings 1.5 mm.

Holotype, male (KU), Kusaie, Lelo, Dec. 24, 1937, Esaki. Paratype, male (US), Kusaie, Mt. Tafeayat, 300-360 m., Aug. 20, 1946, Townes.

DISTRIBUTION: Caroline Is. (Kusaie).

Two additional specimens are at hand (Kusaie, Mt. Matante, 380 m., south slope, Mar. 4, 1953, Clarke; Kusaie, Mt. Tafeayat, 518 m., Feb. 9, 1953, Clarke). They differ from the above in pronotal proportions (broader middle lobe). They are females, but not included as paratypes. The head is shown in figure 3, *i, j;* the eyes are only about one-third of the interocular space above, and the hairs of the ventral surface of the posterior lobe are much longer than the remaining ones. The femora of fore legs are more strongly swollen than those of the males, their length three times their maximum width; the claws are only slightly unequal in size. The hind legs are shown in figure 3, *n.* The abdomen is largely membranous, having dorsal chitinized plates as in *O. swezeyi,* but sternites 3 to 7 each have 2 + 2 small sclerotized plates laterally. Structure of center of hind border of last sternite as in figure 3, *p.*

This species differs from *O. swezeyi* in its larger size (intermediate between *O. swezeyi* and *O. esakii*), the paler color, the shorter fourth antennal segment, and the characters given in the key.

4. Oncylocotis esakii Usinger and Wygodzinsky, n. sp. (fig. 4, *a-f*).

Male: Elongate, the surface clothed with erect hairs with curved tips.

Head distinctly shining (dry specimens), slightly more than twice as long as wide across eyes (1 : 0.45). Eyes relatively small, less than half as wide as interocular space above (1 : 2.3), widely separated beneath, far removed from level of dorsal and ventral surface of head in lateral view. Hind lobe narrower than width across eyes (1 : 1.3), about as long as broad, suboval in shape in dorsal view. Antennae nearly as long as head and pronotum together. Proportion of segments 1 to 4 is 1 : 3.0-3.3 : 2.1-2.2 : 1.9-2.0. Rostrum at rest reaching to level of hind margin of eyes. Hairs of undersurface of postocular portion of head much longer than other hairs.

Pronotum shorter than head (0.85 : 1), wider than long (1.1 : 1), the middle lobe forming an inverted Y-shaped impression on either side, the depressions bare in contrast to pubescent raised areas. Hind lobe relatively long and broad, with feeble longitudinal carina at middle. Posterior margin shallowly emarginate. Proportional length of fore, middle, and hind lobes is 1 :2.0 : 2.0; proportional width, 1 :1.65 : 3.2.

Scutellum one-third as long as pronotum, raised at middle and broad at apex, with exceptionally long curved hairs apically.

Fore wings long, exceeding apex of abdomen and relatively wide, expanded along basal fifth of costal margin. M-cu cross vein situated one-third from base of stigmal cell, much proximad of level of inner posterior angle of apical discal cell. R not widened at base of stigmal cell. Veins with two rows of curved hairs. Claws of fore legs only slightly unequal.

Legs relatively slender. Fore femora slightly curved, 4.5 times as long as thick, the tibiae shorter, 0.85 : 1. Hind femora slightly thinner, one-sixth as wide as long.

Abdominal sternites and tergites almost completely sclerotized, but very clear-colored. Setae relatively slender. Genital segment subtrapezoidal when seen from above or below, widest slightly beyond middle seen from behind as in *O. swezeyi.*

General color brown (dry specimens). Head yellowish brown, becoming progressively darker behind. Fore and middle lobe of pronotum, as well as scutellum, dark reddish brown, hind lobe of pronotum somewhat more clear-colored. Fore wings darkest at base; abdomen and appendages lighter brown, legs uniformly colored.

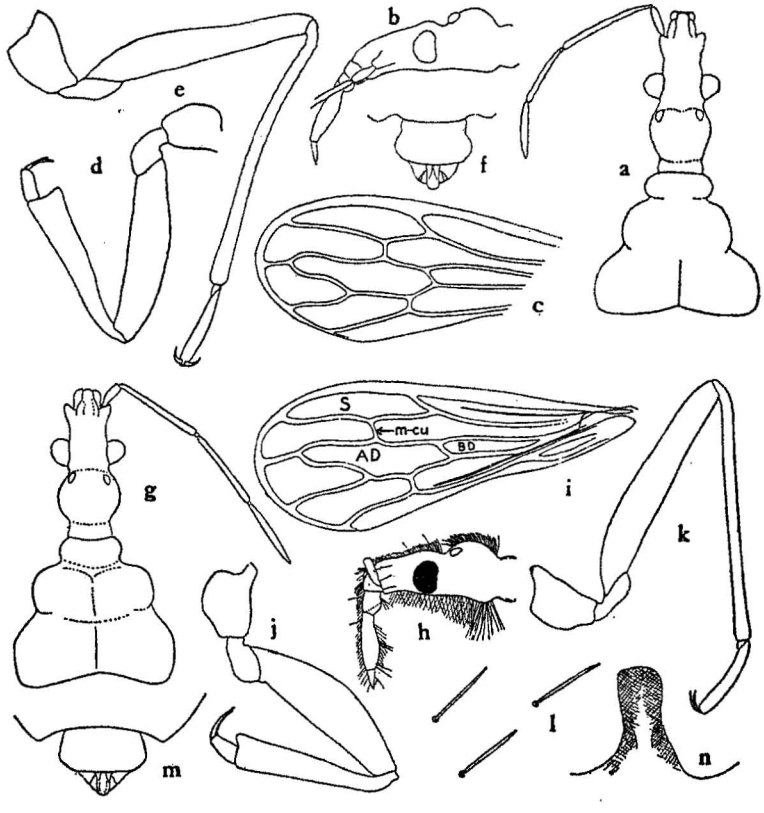

FIGURE 4.—a-f, *Oncylocotis esakii,* male: *a,* head and pronotum, dorsal view; *b,* head, lateral view, bristles not shown; *c,* fore wing; *d,* fore leg; *e,* hind leg; *f,* genital capsule, seen from below. g-n, *O. capitonis,* male: *g,* head and pronotum, dorsal view; *h,* head, lateral view; *i,* fore wing (S = stigmal cell, AD = apical discal cell, BD = basal discal cell, m-cu = medio-cubital cross vein); *j,* fore leg; *k,* hind leg; *l,* bristles of abdominal tergite; *m,* genital region, seen from below; *n,* guide.

Holotype, male (KU), Ponape, Nipot, July 20, 1939, Esaki. Paratypes, two males, same data as for holotype; four males (CM, BISHOP), Ponape, summit, Mt. Kupwuriso, 600 m., Mar. 10, 1948, beating vegetation, Dybas.

DISTRIBUTION: Caroline Is. (Ponape).

This species is dedicated to Professor Teiso Esaki, early student of Enicocephalidae and pioneer collector in Micronesia, whose recent death deprived the world of one of its leading entomologists.

5. Oncylocotis capitonis Usinger and Wygodzinsky[2], n. sp. (fig. 4, *g-n*).

Surface of head dull (dry specimens); its hind lobe subcircular in outline when seen from above, more strongly elevated in lateral aspect.

Proportion of antennal segments 1 to 4 is 1 : 3.5 : 3.5 : 3.0, viz, third segment as long as second (considerably shorter than second in *O. esakii*).

M-cu cross vein situated nearer middle of stigmal cell, almost at level of inner posterior angle of apical discal cell. R narrow at base of stigmal cell, as in *O. esakii* (fig. 4, *i*).

Color (dry specimens): Head, pronotum, and scutellum dark piceous, almost black; anteocular portion orange brown.

Fore femur thicker, less than 4 times as wide as long.

Holotype, male (US 64632), Ponape, Mt. Beirut (Pairot), about 600 m., Mar. 13, 1948, beating vegetation, Dybas. Paratype, Ponape, Mt. Nahnalaud, about 600 m., Mar. 18, 1948, Dybas.

DISTRIBUTION: Caroline Is. (Ponape).

This species agrees in most characters with *O. esakii*, but differs in some characters which seem to fall outside the usual range of variability in this group, as described above.

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[2] *Capito, -onis*, one having a large head.