NOTES ON THE BIOLOGY OF *GNATHOPLEURA* SP. (HYMENOPTERA: BRACONIDAE) IN BRAZIL[1]

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ABSTRACT: Collections of puparia of the sarcophagid fly *Peckia chrysostoma* yielded several parasitoids of the alysiine braconid genus *Gnathopleura* (Hymenoptera). Data are provided on biology, larval morphology, and the relationship of this parasitoid to *G. semirufa*.

The Alysiinae are exclusively parasitic on cyclorraphous Diptera. The genus *Gnathopleura* is one of the largest and most commonly encountered of the South American alysiines. However, host records for *Gnathopleura* sp. are few and are limited largely to species occurring in North America.

Wharton (1980) included the following species in *Gnathopleura: carinata, chiriquensis, bugabensis, semirufa, ruficoxalis, astarte, nigripennis, ridibunda, nigriceps, cariosa,* and *melanocephala.* Wharton (1986) also renamed *G. nigripennis* (Brues 1912) as *G. quadridentata* when *Alysia nigripennis* (Thomson 1895) was transferred to *Gnathopleura.*

I collected three specimens of *Gnathopleura* sp. from vegetation and reared seven *Gnathopleura* sp. from puparia of *Peckia chrysostoma* (Wiedemann 1830) (Diptera: Sarcophagidae) obtained from a wet area near the Miranda River (Passo do Lontra), MS, Brazil (Fig. 1).

This species is assigned to *Gnathopleura* based on the following characters: the border of the mandibles between teeth 1 and 2 swollen to form a fourth tooth (Fig. 2); parallel vein (*npar*) arising near upper edge of brachial cell (*B*); postnervellus (*pnv*) well developed, extending more than halfway to wing margin as a pigmented vein (Fig. 3).

This species closely resembles *G. semirufa* (Brullé 1846) in wing venation and color pattern (Fig. 3) (Fischer 1975) but appears to differ from it by the pit in basal area of the propodeal carina (Fig. 4) and by dentation of the mandible. Fischer (1975) described the second tooth as rounded and the third tooth pointed (Fig. 2) forming a straight angle. This species has the second and third teeth pointed (Fig. 2). In his description, Fischer did not make reference to the propodeal pit. Additional study is needed to determine whether this species falls within the range of morphological variation of *G. semirufa.*

Larva: Solitary. Last instar (Fig. 5) with the head sclerites different from the other Alysiinae figured by Capek (1970) and Short (1952). The labial scle-

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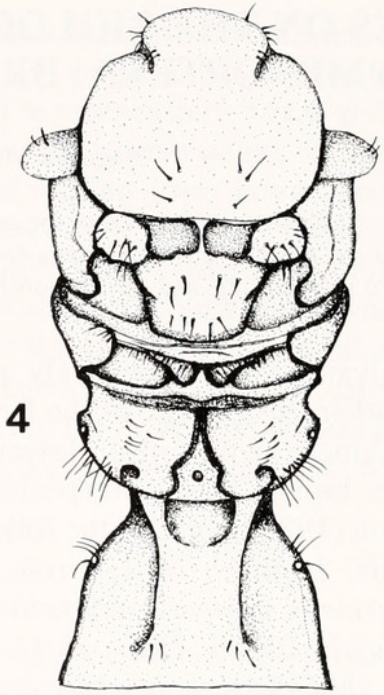

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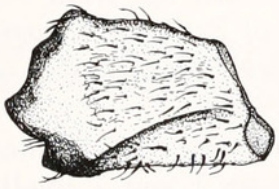

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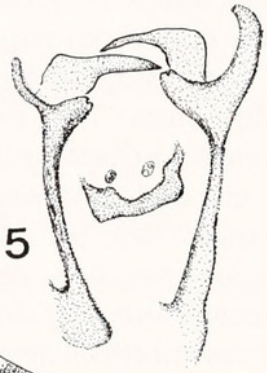

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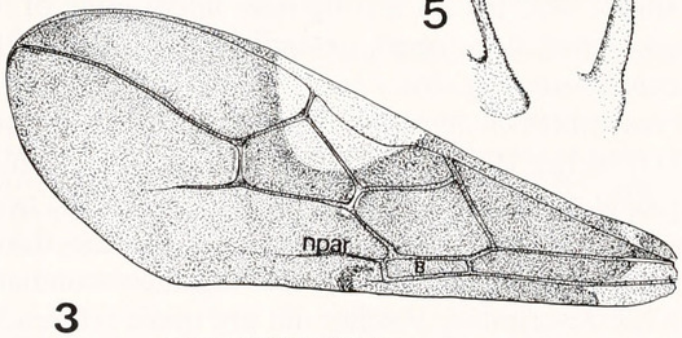

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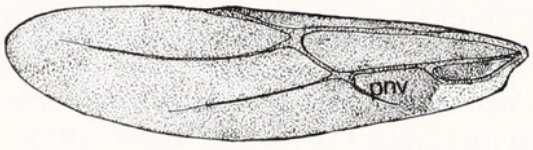

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Fig. 1. Map of Brazil showing the locality of collection (●). Fig. 2. *Gnathopleura* sp., female, mandible. Scale bar = 1.0 mm. Fig. 3. *Gnathopleura* sp., female, fore and hind wings. Scale bar = 1.0 mm. *npar,* parallel vein; *pnv,* postnervellus; *B,* brachial cell. Fig. 4. *Gnathopleura* sp., female, thorax and basal parts of metasoma (dorsal aspect). Scale bar = 1.0 mm. Fig. 5. *Gnathopleura* sp., the final instar larva, head capsule. Scale bar = 0.5 mm. Fig. 6. *Gnathopleura* sp., the final instar larva, integument. Scale bar = 0.1 mm. Fig.7. *Gnathopleura* sp., the final instar larva, spiracle. Scale bar = 0.1 mm.

rite is partly reduced and more or less transverse; hypostoma long; fork-like pleurostoma at base of mandibles; mandibles smooth, sickle-shaped; labial palpi sclerotized. The skin is different from the condition in *Alysia* where definite spines are present and from the condition in *Aspilota* where the skin is smooth (Short 1952). Cuticle of the body (Fig. 6) with small dentations. Spiracle with closing apparatus not close to atrium (Fig. 7).

Biology: This species parasitizes larvae of *Peckia chrysostoma* (Diptera, Sarcophagidae) which feed on animal carcasses. The period of the parasitoid larva development was approximately one month. There is one parasitoid specimen in each dipteran puparia. The adults emerged through a hole at anterior (67%) or posterior (33%) region of the puparia, cutting the suture between two consecutive segments.

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