

A new species of *Hockeria* Walker (Hymenoptera, Chalcididae), a pupal parasite of *Heliothis virescens* Hufn. (Lepidoptera, Noctuidae) on lentil (*Lens esculenta*) and chick pea (*Cicer spp.*) in Southeastern Anatolia

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Summary

Hockeria apani n.sp. is described from the specimens reared from pupae of *Heliothis virescens* Hufn., causing sometimes serious damage on lentil and chick pea in Şanlıurfa district, Southeastern Anatolia.

Introduction

Some specimens of *Hockeria* Walker were submitted me for identification by Mrs. Nilgün Yaşarakıncı, Plant Protection Research Institute, Diyarbakır, Turkey. When she has worked on her Ph. D. thesis** she reared the specimens of *Hockeria* from some pupae of *Heliothis virescens* Hufn., causing sometimes serious damages on lentil and chick pea in Şanlıurfa district, Southeastern Anatolia.

The specimens were identified as a species of *Hockeria* near *Hockeria tamaricis* Boucek which has described as the most distinctive species in the genus by having the unusually shiny and convex posterior

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** Distributions and taxonomies of *Heliothis* spp., causing damage on lentil and chick pea in Southeastern Anatolia, and especially biology, hosts and natural enemies of *H. virescens* Hufn. (Lepidoptera, Noctuidae).

part of mesoscutum in the females (Boucek, 1982), whilst in other species of the genus thorax more or less coarsely punctured (Boucek, 1952; 1955; 1974). The species was compared with *H. tamaricis* and recognized to be of an undescribed species of the genus.

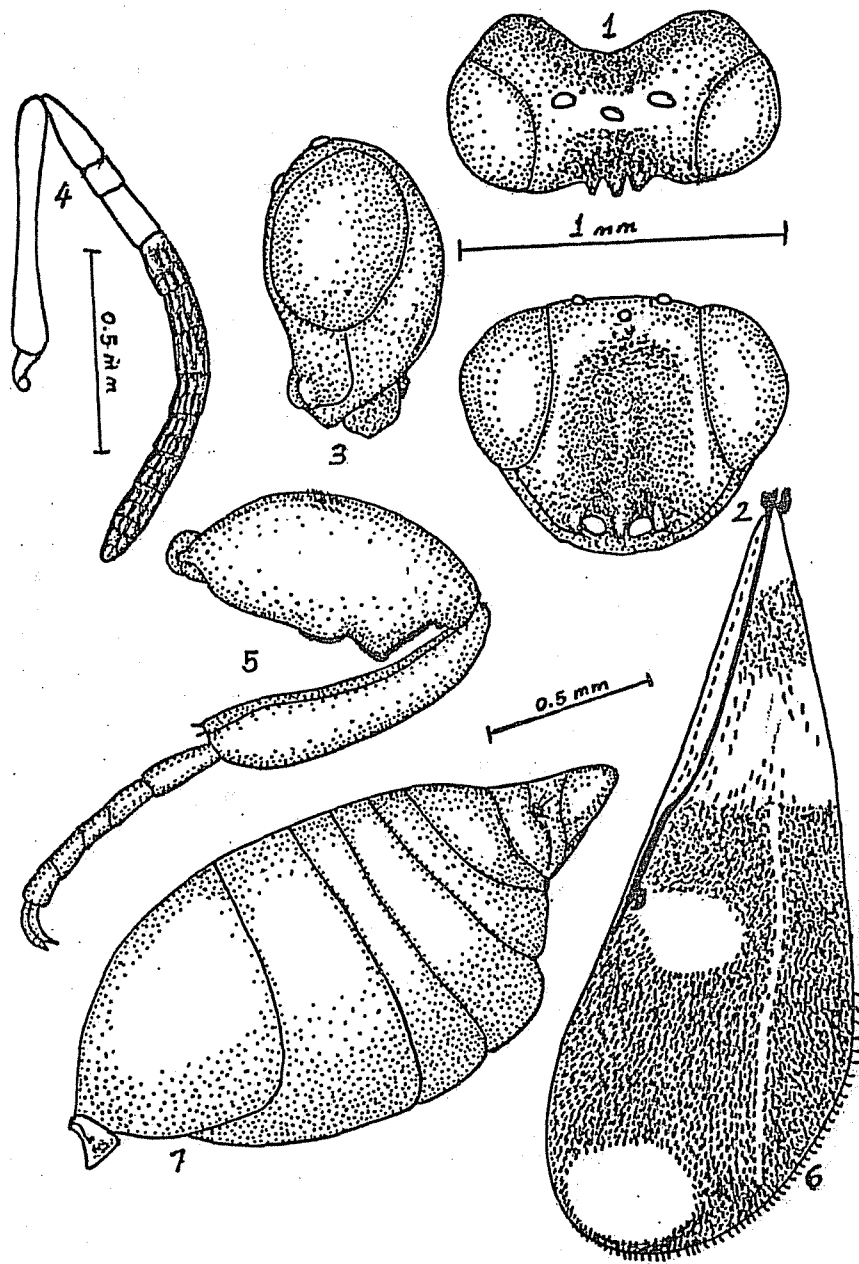
Hockeria apani sp. * (Figs. 1-7)

Female: Length 3.0-3.3 mm. Colour: black; scape, pedicellus, basal two segments of funicula, tegulae, all legs, gaster basally, and ventrally reddish. Forewing infusate, except a large white spot below stigma and hyaline areae along cubital hair line, at apex and basal part of wing (Fig. 6).

Head (Figs. 1-3) dorsally stout, about 1.85 times as broad as long; POL 3 times OOL; occiput without a ridge dorsally, frons minutely reticulated, not punctured; pilosity short and sparse; scrobes cavity shallow, reaching 8/9 of way up to mid ocellus; gena in frontal view straight, posteriorly delimited by sharp high curved carina, malar groove developed through and curved through clypeus on lower part of genae; clypeus narrow; toruli separated from clypeus by less than torular diameter, and less than half of torular diameter from each other; interantennal lobe short but higher than the sides of toruli; mandibles narrow, with two long teeth; eyes with short and sparse hairs. Relative measurements: head width 74; height 60; dorsal length 40; vertex width 35; OOL 5; POL 16; eye 40:30; malar space 22; mouth width 25; scape length 45; pedicel plus flagellum 92; scape reaching slightly above vertex; flagellum more or less filiform (Fig. 4); pedicellus 3 times as long as broad, 1.5 times as long as length of first funicular segment; annellus slightly longer than broad (7:6), about half of the length of first segment; second funicular segment slightly shorter than first segment; 3.-7. funicular segments about equal in length and width, about 1.33 times longer than broad; club slightly longer than twice as long as broad (14:6).

Thorax in lateral view regularly arched dorsally, in dorsal view about 1.5 times as long as broad; pronotum, mesonotum and scutellum almost smooth, with shallow and sparse punctures; pilosity short and dense; notaular grooves slightly indicated anteriorly and almost indistinct posteriorly; scutellum slightly convex, slightly broader than long, apical carina distinct, with two broad low teeth; propodeum with two submedian carina developing oval median areola; along anterior margin of propodeum with two long areolae reaching spiracular areola, and with two small areolae on both sides of median areola; laterad of median areola with some irregular small areola and following which with two bigger areola, one of them and callus with broad patches of silvery pilosity; spiracle narrow and long, about 4 times longer than broad, and separated by less than their length from metanotum (5:6);

* Named in honour of invaluable scientist, late Professor Dr. H. Hüseyin APAN who had spent most of his life for the development of Urfa Agricultural Faculty, as its founder dean, Dicle University, Diyarbakir, Turkey



Figs. 1-78. *Hockeria apani* n.sp.: 1-3, head in dorsal, frontal and lateral view; 4, female antenna; 5, female hind leg excluding coxa; 6, female forewing; 7, female gaster in lateral view

metapleuron with strong reticulation, covered by silvery hairs; mesopleuron with transverse carinae on femoral depression, and upper corner of mesopleuron below tegulae with some reticulations and silvery hairs; hind femur slightly more than twice as long as broad, with broad and low tooth in middle; distal tooth sharper and twice bigger than middle tooth; comb starting on middle tooth (Fig.5); hind tibiae stout without additional external carina. Forewing (Fig.6) with marginal vein slightly removed from wing margin (1.5:5), 0.3 times as long as costal cell, about twice as long as post marginal and 5 times stigmal vein; basal cell open below, with some hairs basally, fuscous parts with dense short black hairs, spot below stigmal vein and apical part of wing with white hairs.

Gaster (Fig.7) ovate, pointed at apex; petiole short, transverse; first tergite convex, without median foveae, hind margin rounded; second tergite smooth, medially about one-third as long as first, its hind margin straight; following three terga short, about half as long as second tergum, their hind margin slightly emarginate medially; sixth tergite as long as the second; epipygium with median keel on apical half, and as long as sixth tergite medially.

Male: Length 1.9 mm. Similar to female except as follows: Forewing slightly fumate; gaster dorsally black; antenna light brownish; body with distinct and dense punctations; eyes with dense, short hairs; POL about 7.5 times OOL; 6.-7. segments quadrate, clava 2.4 times as long as broad; scutellum posteriorly with two short broad teeth; gaster finely reticulate; areolation on propodeum finer between plicae and submedian carinae.

Material examined: Holotype female, Turkey, Şanlıurfa, Ezgil, 23.7.1987, ex Heliothis virescens on lentil; Paratypes: 3 females, 1 male, same data as holotype (N. Yaşarakıncı). Holotype and paratypes are deposited in the museum of Agriculture Faculty, Cumhuriyet University, Tokat, Turkey.

Diagnosis: H. apani very similar to H. tamaricis Boucek in having the unusually shiny and convex posterior part of mesoscutum in the females. The new species differs from its twin species, H. tamaricis, in having longer pedicellus which is 1.5 times as long as first funicular segment (in tamaricis pedicellus is shorter than the first funicular segment); longer funicular segments which are at least 1.33 times longer than broad (in tamaricis 3.-6. funicular segments are quadrate, 7th funicular segment is slightly transverse); longer scape which is reaching up to vertex (in tamaricis it is not reaching ocellus); forewing with only one white spot below stigmal vein (in tamaricis with two white spots in the middle of forewing); marginal vein twice as long as post marginal and 5 times stigmal vein (in tamaricis marginal vein 4 times as long as postmarginal and stigmal veins which are subequal); hind femur with broad low tooth in the middle (in tamaricis hind femur with sharper tooth in the middle); metapleuron wholly covered by silvery hairs (in tamaricis metapleuron with few hairs and large umbilicate puncta in the upper part, and the lower part covered by silvery hairs (Boucek, 1982).

Biology : The new species reared from the pupae of H. viriplaca damaged on lentil and chick pea.

Acknowledgement

The author wishes to thank Mrs. Nilgün Yaşarakıncı for rearing and submitting those interesting materials.

Özet

Güneydoğu Anadolu'da mercimek ve nohut zararlısı Heliothis virescens Hufn. (Lepidoptera, Noctuidae)'nın pupa paraziti olan yeni bir Hockeria Walker (Hymenoptera, Chalcididae) türü

Hockeria apani n.sp. Güneydoğu Anadolu'da Ezgil, Şanlıurfa civarında yetiştirilen mercimek ve nohutta zaman zaman önemli düzeyde zararlara neden olan Heliothis virescens Hufn. (Lepidoptera:Noctuidae) pupalarından elde edilmiştir. Bilim dünyası için yeni olduğu belirlenen bu tür, isimlendirilmiş, tanım ve ayırt edici özelliklerinin bulunduğu vücut parçalarının çizimi yapılmıştır.

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