

**DESCRIPTION OF A NEW *HOCKERIA* (HYMENOPTERA:CHALCIDIDAE),
A PARASITE OF A LIPIDOPTEROUS GALL-CAUSER ON *TAMARIX***

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ABSTRACT

Hockeria tamaricis n.sp. is described from material reared from pupae of *Amblypalpis olivierella* Ragonot, a gelechiid moth causing galls on several species of *Tamarix* in Israel, Saudi Arabia and Pakistan,

The insects associated with tamarisces, especially the phytophagous pests and their natural enemies have recently been studied in several countries of south-western Asia. Among the parasites reared from the galls of *Amblypalpis olivierella* Ragonot one species belongs to the Chalcidid genus *Hockeria* Walker (Gerling, D., J. Kugler and A. Lupo. 1976. The galls of insects and mites that occur on *Tamarix* spp. in Israel and the Sinai. *Bolletino del Laboratorio di Entomologia Agraria "Filippo Silvestri" di Portici* 33:53-79). This genus is poorly known and about half of the dozen species known to me from the region are undescribed. The species described herewith is the most distinctive of them.

Hockeria tamaricis n.sp.
(Figs. 1-2)

FEMALE. Length 3.5-4.0 mm. Colour: black; base of antennae, tegulae, and all legs except fore tibiae and hind tibiae and tarsi, reddish; often also gaster extensively to wholly red. Forewing with very broad infuscation subdivided medially by two large white spots (anterior one at stigmal vein) leaving distal band twice broader than proximal one and slightly broader than hyaline area at apex (fig. 1).

Head with unusually convex face (fig. 1), occiput dorsally separated by blunt ridge running through hind ocelli. Punctuation of frons, especially near to ocelli, not dense and very shallow; pilosity extremely short. Shallow scrobes reaching barely more than 2/3 of way up to mid ocellus. Genae fairly convex but in frontal view appearing straight due to malar ridge in lower part (here replacing malar groove which is visible nearer to eye); gena posteriorly delimited by sharp high curved carina accentuated by

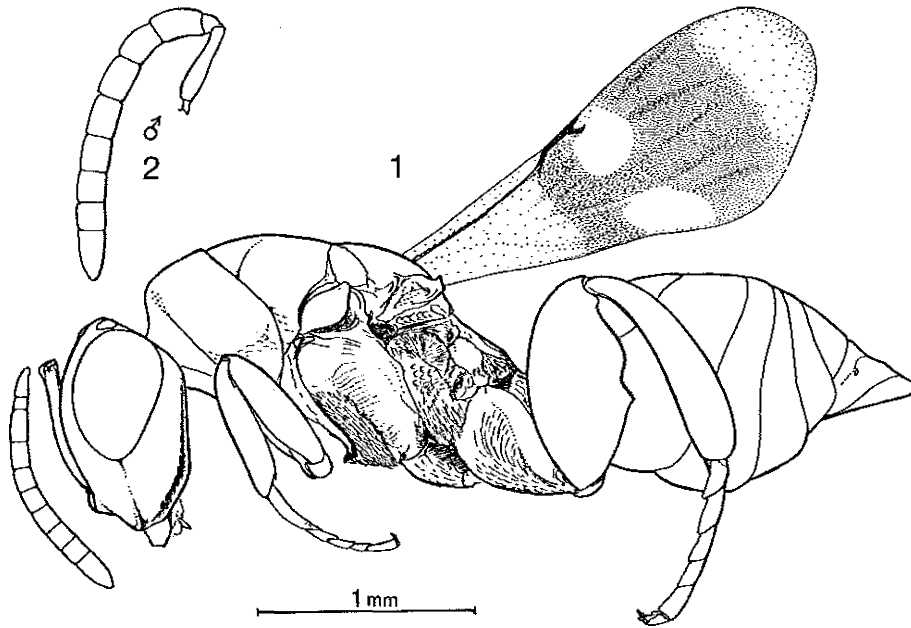
deep groove Clypeal ribbon narrow facing obliquely downwards toruli separated from clypeus by less than torular diameter but by twice as much as toruli from each other. interantennal lobe rather thin and low Mandibles relatively narrow, two-toothed Relative measurements: head width 60, dorsal length 30, height 49, vertex width 30, OOL 2, POL 19, eye 31:17.5, malar space 20, mouth width about 24, scape length 31, pedicel plus flagellum 60. Scape not nearly reaching ocellus; flagellum slender though very slightly clavate; pedicel about 1.8 times as long as broad, subequal in length to second funicular segment; funicular segments 1 and 6 subquadrate, apical ones slightly transverse.

Thorax in lateral view almost regularly arched, dorsally fully 1.6 times as long as broad, broadest across the long pronotum. Mesoscutum unusual: shiny because of very sparse puncturation, especially posteriorly (as well as axillae), and almost globose-convex. Puncturation on pronotum and scutellum denser but shallow, and pilosity almost nil. Notaular grooves obliterated to indistinct thin lines. Scutellum not high but regularly convex, very slightly broader than long, posteriorly shiny due to sparser puncturation; apical carina almost regularly raised, often without evident teeth, these teeth slightly to distinctly visible in an oblique anterior view. Propodeum with low septa of areolation and this rather variable; areolae along anterior margin interrupted by oval median areola; laterad of it two rather shiny submedian areas delimited postero-laterally by stronger and converging sublateral carinae behind which are broad patches of silvery pilosity (on either side of median adpetiolar elevation); outside of spiracle an oblique carina delimiting silvery hairs (directed outwards) of callus, behind spiracle 2 or 3 large irregular areolae. Metapleuron with few hairs and large umbilicate puncta in upper part, lower part covered by silvery hairs. Mesopleuron in front of femoral depression and ventrally, behind distinct acetabular carina, also silvery hairy. Hind femur about twice as long as broad, with sharper tooth in middle, distal tooth lobe-like, broad and low; comb starting on sharper tooth. Hind tibia stout, without additional external carina. Forewing: marginal vein slightly removed from the margin, only 0.23 the length of costal cell, but almost 4 times as long as stigmal or postmarginal vein (these subequal).

Gaster ovate, pointed at apex, on a short petiole (length to width about 0.3:1). First tergite convex, without distinct basal fovea; hind margin stout and rounded, only in median quarter truncate. Second tergite medially smooth and here about one-third as long as the first, sublaterally finely coriaceous, its hind margin straight; following three tergites short, with emarginate hind margins and bearing short thin sparse hairs; only sixth tergite longer; epipygium with median keel half as long as sixth tergite medially.

MALE. Length 2.6-3.4 mm. Similar to ♀ in form of head, thorax, legs and anterior part of gaster, but wings without infumation, whitish, and antennae, legs and gaster black. Body duller, with more distinct and denser puncturation, although on posterior part of mesoscutum interstices in places still about as broad as punctures. Antenna (fig. 2): scape slightly curved and tapering distad, only slightly longer than breadth of eye; flagellum stout-subcylindrical, about 1.6 times as broad as pedicel (this slightly transverse), first funicular segment barely twice as long as broad and almost straight, the seventh subquadrate. Scutellum posteriorly with two short angular teeth. Gaster finely reticulate except narrowly at hind margins of tergites.

Variation. Reddish parts in ♀ sometimes partly to completely replaced by black.



Figs. 1-2. *Hockeria tamaricis* n.sp. 1. Female habitus. 2. Male antenna.

Propodeal median areola sometimes extending on adpetiolar (nuchal) elevation and may be deep, also other features of propodeum either more pronounced or more obliterated.

MATERIAL EXAMINED. Holotype ♀, ISRAEL: Michmoret, 27.VI.1977, A. Lupo (in BMNH, London). Paratypes: ISRAEL: 6♀, 2♂ Michmoret, 4.III., 20.V. and 27.VI.1977; 1♀, 1♂ N. Zeelim, 2.IV.1971; all A. Lupo. SAUDI ARABIA: 1♀, 1♂ Prov. Al-Hassa, 1979, A.A. Kadous. PAKISTAN: 1♀, 1♂ Dhak Pathan, 14.X.1976 and 18.XII.1977, per CIBC. Most paratypes in BMNH, London, some also in the Department of Zoology, Tel Aviv University.

H. tamaricis differs from all other species of the genus *Hockeria* Walker (described and undescribed) by the unusually shiny and convex posterior part of mesoscutum in the females (less strikingly so in the males) and the strongly convex frontal part of the head with abrupt change of plane to occiput in both sexes. Although these features are very unusual compared with other species of the genus, in my view they do not warrant eventual subgeneric separation.

Biology. The Israeli and Pakistani specimens were reared from pupae of *Amblypalpis olivierella* Ragonot, the Saudi Arabian specimens from a 'lepidopterous gallmaker on *Tamarix*'.