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T. Novoselsky & A. Freidberg

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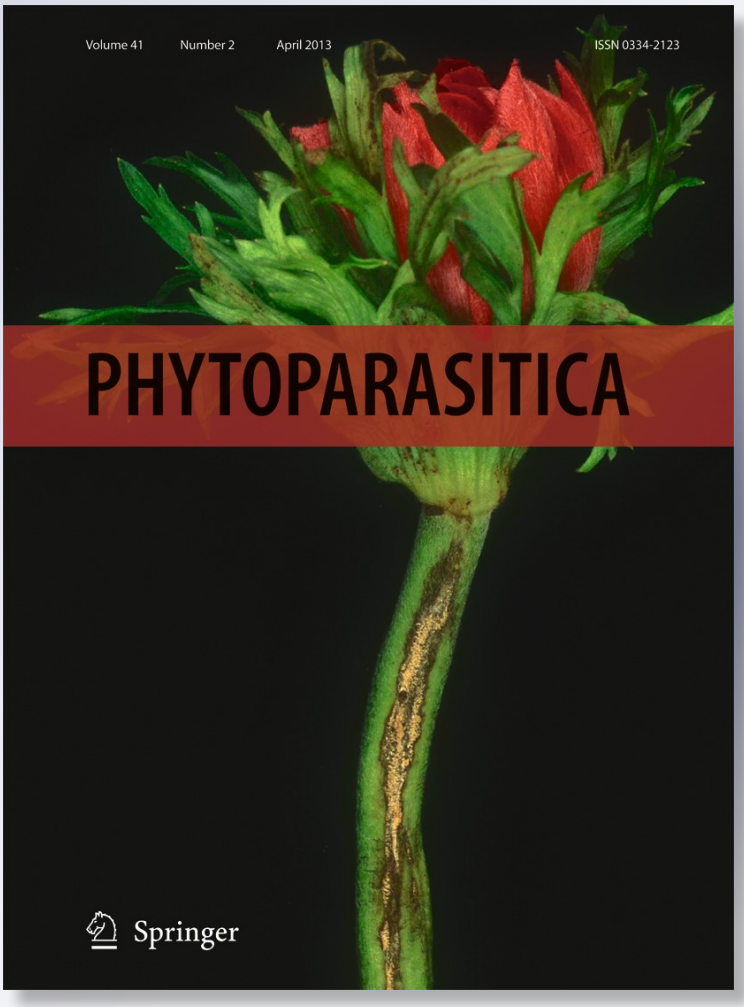

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Note: *Corythauma ayyari* (Drake) (Hemiptera: Heteroptera: Tingidae)—a new pest of ornamentals in Israel

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Abstract We herewith report for the first time the discovery in Israel of the invasive species *Corythauma ayyari* (Drake), a member of the lace-bug family, Tingidae (Hemiptera).

Keywords Invasive species · Lace-bugs

We herewith report for the first time the discovery in Israel of the invasive species *Corythauma ayyari* (Drake 1933), a member of the lace-bug family, Tingidae (Hemiptera). The Tingidae comprise a large family of phytophagous terrestrial bugs with about 2000 species worldwide. The Tingidae fauna of Israel comprises 54 species (Bodenheimer 1937; Linnavuori 1961; Péricart *et al*. 1993), but additional species are known to occur (Novoselsky, personal data). Two economically important species are known in Israel: *Stephanitis pyri*—a pest of apple, pear, plum, cherry and apricot (Rosaceae), and *Monosteira unicostata*—a pest of *Populus* spp. and *Salix* spp. (Salicaceae) (Avidov & Harpaz 1969; Péricart *et al*. 1993). *C. ayyari* is added here to the local list as a third pest species of this family.

T. Novoselsky (✉) · A. Freidberg
Department of Zoology, The George S. Wise Faculty of Life Sciences, Tel Aviv University,
Tel Aviv 69978, Israel
e-mail: tatyana.novoselsky@gmail.com

A. Freidberg
e-mail: afdipter@post.tau.ac.il

Corythauma ayyari, the subject of this note, is known primarily from the Oriental region—Pakistan (Drake & Man 1964), India, Malaysia (Penang Island), Laos, Thailand (Guilbert 2007; Nair & Nair 1974), but was recently recorded also from France (Streito *et al*. 2010).

Plants on which this species has so far been found, and on some of which it was recorded as a pest, include *Jasminum* spp. [*J. pubescens* (star jasmine) and *J. sambac*], *Lantana* sp., *Musa* sp. (plantain), *Hedychium* sp. (cardamon), *Ocimum* sp. (basilicum), and *Daedalacanthus nervosus* (Drake & Man 1964; Nair & Nair 1974; Singh & Satyanarayana 1996). To control the species, Nair & Nair (1974) and Singh & Satyanarayana (1996) collected and destroyed infected leaves and also used insecticides. According to these authors, the nymphs and adults suck sap from leaves, and infected leaves turn yellow, desiccate and eventually drop.

In Israel, *C. ayyari* was first discovered by the second author, attacking ornamental jasmine in the Tel Aviv area in 2004. A large number of adults, sometimes together with nymphs, were sporadically observed on the host plants in Herzliyya during August–October (2004–2011). Host plants detected in Israel to date are *Volkameria inermis* (Verbenaceae), *Jasminum sambac*, and *J. pubescens* (Oleaceae). Feeding by nymphs and adults results in small chlorate spots on the upper leaf surface. The leaf undersides characteristically become black or dark brown and varnish spotted due to the excrement, and the bugs reduce the leaf photosynthesis by damaging the palisade parenchyma (Fig. 1).

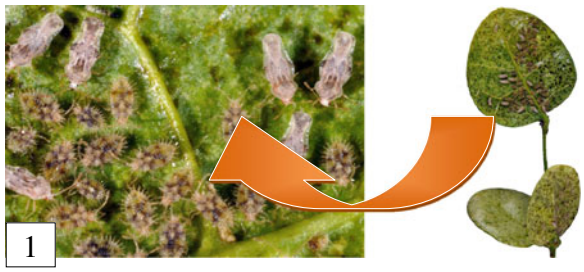
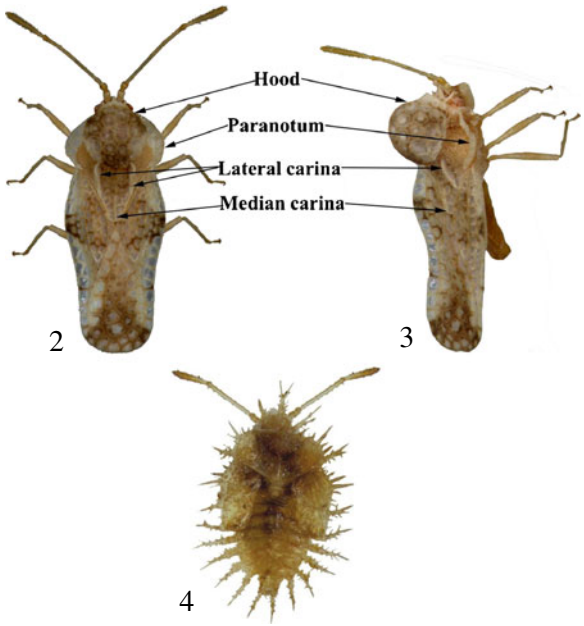


Fig. 1 Infested leaves of *Jasminum sambac* (Oleaceae), with adults and larvae of *Corythauma ayyari* (details on the left) (Herzliyya, Israel, October 2011; photo by Oz Rittner)

Adult *C. ayyari* differ from other Tingidae in Israel by the following combination of characters (Figs. 2 and 3): body elongate-oval, length-width ratio: ♀ (*N*=5): 2.25–2.56, ♂(*N*=5): 2.48–3.06; total body length (excluding the antennae): ♀: 2.46–2.71 mm; ♂: 2.57–2.75 mm; antennal segments I-IV ratio: ♀: 1.00: 0.76: 6.18: 2.69; ♂: 1.00: 0.73: 7.36: 2.66; anterior margin of pronotum with hood in the form of a spherical dome, truncate anteriorly; lateral margins of pronotum with two rows of cells in the middle; pronotum with three carinae; median carina with 1–3 series of cells; elytra transparent, not expanded, with small and medium-sized cells.

Final instar larvae of *C. ayyari* (Fig. 4) are characterized among the Israeli species by the yellowish-brown body, covered with thick spines; body with branched tubular protuberances, especially around the edge, but also medially on head (which carries five spiny protuberances: one median, one pair occipital and one pair frontal), thorax and abdominal tergites; medial protuberances on abdomen single, usually bifurcate; antennal segments I–IV ratio (average of *N*=5): 1.00: 0.67: 3.92: 3.00. Total body length (excluding the antennae): 1.60–1.73 mm, width 0.92–0.96 mm.



Figs. 2–4 *Corythauma ayyari*, adult and final instar nymph. 2. Adult, *dorsal view*. 3. Adult, *dorsolateral view*. 4. Nymph, *dorsal view*

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