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THE GENUS *HADROPHYES PUTON*
IN THE CENTRAL MEDITERRANEAN
(*Heteroptera Miridae Phylinae*)

RIASSUNTO

Il genere Hadrophyes Puton nel Mediterraneo centrale (Heteroptera Miridae Phylinae). Viene segnalata la presenza in Italia (Sicilia e Sardegna) e in Tunisia del Miride alofilo Hadrophyes decipiens Linnavuori, 1964, sinora noto soltanto della località tipica, Sokhna (Egitto), situata sulla costa del Mar Rosso a un centinaio di chilometri a sud di Suez. Vengono indicati i caratteri discriminatori per distinguerla da H. sulphurella Puton, con cui sinora era stata parzialmente confusa, e vengono raffigurati i genitali maschili delle due specie.

SUMMARY

The halophilous mirid *Hadrophyes decipiens* Linnavuori, 1964, so far known only from the typical locality in Egypt (Sokhna), is reported for the first time from Italy (Sicily and Sardinia) and Tunisia. The characters separating it from *H. sulphurella* Puton are pointed out; the male genitalia of both species are illustrated.

INTRODUCTION

The genus *Hadrophyes* Puton is known to include three species: *H. sulphurella* Puton, 1874, widely distributed from the Canary islands and the Mediterranean region to Turkmenistan; *H. obscurella* Wagner, 1971, endemic of Morocco (Asliah); *H. decipiens* Linnavuori, 1964, certainly a good species and so far known only from the typical locality, Sokhna, in Egypt, along the Red Sea coast about 100 km S of Suez.

All the species of the genus live in salt marshes on Chenopodiaceae, mainly *Arthrocnemum*, but also on other representatives of the same family (*Salsola*, etc.); *H. sulphurella* was collected on *Salicornia fruticosa* L. in Corsica (PERICART, 1965), on *Halocnemum strobilaceum* (Pall.) M. B. in Turkmenistan and on *Salicornia herbaceae* L. in Crimea (PUTSHKOV, 1976), *H. decipiens* on *Suaeda* sp. in Egypt (LINNAVUORI, 1964).

MATERIALS AND RESULTS

Studying a large material of *Hadrophyes* from Corsica, Sardinia, Sicily, Tunisia and Libya, partly already published under the name of *H. sulphurella* (CARAPEZZA, 1997), I found that some populations belonged unmistakably to *H. decipiens*. The subdivision of the examined material between the two species is specified in the list of collecting localities below.

Hadrophyes decipiens Linnavuori, 1964

SARDINIA: Molentargius (CA), 3.VIII.1977, 8 ♂♂, 3 ♀♀, 8.IX.1977, 3 ♂♂, leg. A. Carapezza; foce Posada (NU), 6.VIII.1977, 1 ♂, leg. A. Carapezza.

SICILY: foce Simeto (CT), 14.X.1979, 14 ♂♂, 12 ♀♀, A. Carapezza; Saline di Trapani (TP), 7.VI.1980, 1 ♂, A. Carapezza; Isola delle Femmine, isolotto (PA), 14.VI.2002, 22 ♂♂, 18 ♀♀ on *Arthrocnemum glaucum* Ung., A. Carapezza.

TUNISIA: Kasserine, Foussana, 19.V.1991, 4 ♂♂, 2 ♀♀, on *Salsola vermiculata* L., A. Carapezza; Kébili, Tombar, 19.IV.1992, 5 ♂♂, 1 ♀, on *Arthrocnemum indicum*; 10 km N of Gabès, 16.IV.1990, 2 ♂♂, 3 ♀♀, A. Carapezza; 15 km N of Gabès, 16.V.1991, 1 ♂, A. Carapezza; Gabès, Mareth, 14.IV.1990, 7 ♂♂, 6 ♀♀, on *Arthrocnemum indicum* (Willd.); Gabès, Kettana, 16.IV.1990, 2 ♀♀, on *Salsola vermiculata* L., A. Carapezza; Tozeur, El Hamma du Djerid, 21.IV.1992, 1 ♂, on *Salsola vermiculata* L.; 10 km S of Gafsa, 20.IV.1992, 1 ♂, A. Carapezza; Djerba, Mellita, 10.IV.1990, 4 ♂♂, 4 ♀♀, A. Carapezza.

Hadrophyes sulphurella Puton, 1874

CORSICA: St. Florent, 10.VI.1991, 4 ♂♂, A. Carapezza.

SICILY: foce Birgi (TP), 21.V.1978, 2 ♀♀, A. Carapezza; Marausa (TP), 20.V.1980, 4 ♀♀, A. Carapezza; Vendicari (SR), 20.V.1979, 6 ♂♂, 6 ♀♀; 5.VI.1988, 4 ♂♂, 9 ♀♀, A. Carapezza; Pachino (SR), Pantano Longarini,

20.V.1979, 3 ♂♂, 3 ♀♀, on *Arthrocnemum glaucum* Ung., A. Carapezza; foce Simeto (CT), 21.V.1979, 3 ♂♂, 6 ♀♀, A. Carapezza.

TUNISIA: Nabeul, Korba, 15.V.1991, 2 ♂♂; 3.VI.1993, 4 ♂♂, 4 ♀♀, A. Carapezza; Tunis, Sebkheth Sedjoumi, 5.VI.1979, 3 ♂♂, 2 ♀♀, A. Carapezza; 35 km N of Sousse, 15.V.1991, 3 ♂♂, 2 ♀♀, A. Carapezza; Sousse, Bou Fichta, 29.V.1979, 2 ♀♀, on *Arthrocnemum indicum*, A. Carapezza.

LIBYA: Chott of Tokra, 27.IV.2005, 5 ♂♂, 11 ♀♀, A. Carapezza.

H. decipiens is new for the faunas of both Italy and Tunisia.

The size and ratios of specimens of *H. decipiens* living in the Central Mediterranean have a greater variability than reported by Linnavuori for typical ones from Egypt, and overlap almost completely with those of *H. sulphurella*, as shown in Tab. 1.

Table 1
Measurements of *Hadrophyes decipiens* and *H. sulphurella*.

| | Body length | Ocular index | II ant.segment/ pronotum width |
|--------------------------|-------------|--------------|-----------------------------------|
| <i>H. decipiens</i> ♂♂ | 3.0-4.1 mm | 1.38-1.87 | 0.91-1.08 |
| <i>H. decipiens</i> ♀♀ | 3.8-4.5 mm | 1.65-1.80 | 0.87-0.93 |
| <i>H. sulphurella</i> ♂♂ | 3.0-4.1 mm | 1.64-1.87 | 0.88-1.10 |
| <i>H. sulphurella</i> ♀♀ | 3.8-4.3 mm | 2.00-2.12 | 0.78-0.90 |

While females of the two species can be separated by the ocular index, the only reliable character to distinguish males can be found in the differently shaped vesicas. In *H. sulphurella* this is apically expanded (Fig. 1 e), in *H. decipiens* the apical part is not expanded, but almost regularly digitate, provided with a preapical claw and the opposite ridge serrate (Fig. 1 d).

Only a careful reexamination of all the material of *Hadrophyes* preserved in museums and private collections will give a clear idea of the distribution of the two species in the whole Mediterranean region. As far as the regions taken into consideration are concerned, both species live in Tunisia and Sicily, but only *H. decipiens* was found in Sardinia, and only *H. sulphurella* in Corsica and Libya.

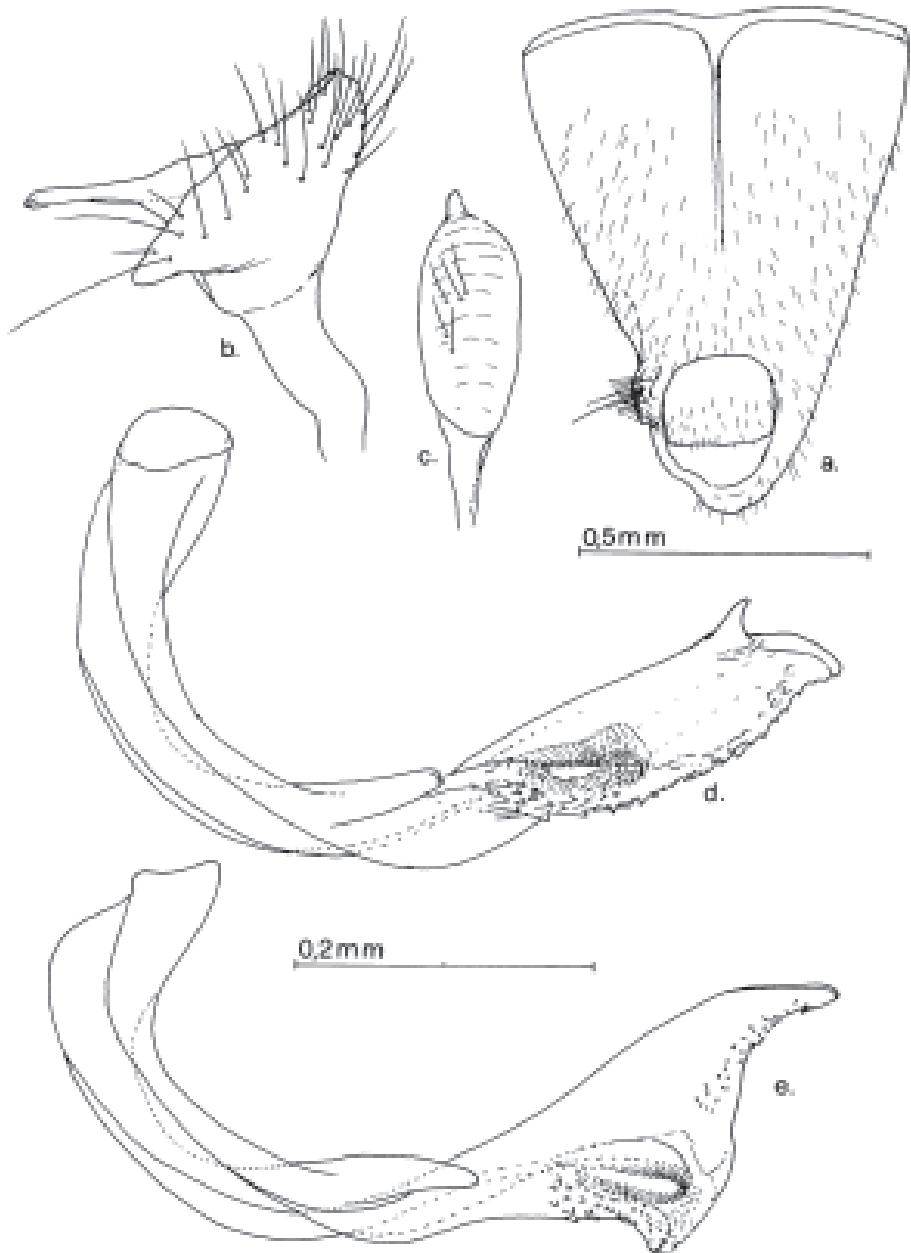


Fig. 1 — a-d: *Hadrophyes decipiens* Linnavuori: a. pygophore; b. left paramere; c. right paramere; d. vesica. - e: vesica of *H. sulphurella* Reuter.

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