

A NEW SPECIES OF *SCYTHIA* KIRITSHENKO
(HOMOPTERA : COCCOIDEA : COCCIDAE) FROM MOUNT ETNA, ITALY

A. RUSSO AND S. LONGO
Istituto di Difesa delle Piante, 89061 Gallina (RC), Italy

ABSTRACT

Scythia aetnensis n. sp., a soft scale insect (Homoptera: Coccoidea: Coccidae) collected on *Festuca circummediterranea* on Mount Etna, Italy, is described from the adult female.

KEY WORDS: Coccoidea, Coccidae, *Scythia*, *Scythia aetnensis* n. sp., Italy

The volcanic complex of Mount Etna in Sicily has a recent, local flora with a low diversity of species (Poli, 1965). This flora, corresponding to the altitudes, includes the typical xerophytes of the high Mediterranean mountains, forest formations, and also some strips which are rich in floristic elements.

The scale insect (Homoptera : Coccoidea) fauna of this coenothic complex has been partly studied (Costantino, 1950). Therefore, a survey was initiated in 1987, during which a soft scale insect was collected on *Festuca circummediterranea* in the Etnean area of Galvarina (Catania), at an altitude of 1819 m. This insect is here described as a new species of the genus *Scythia* Kiritshenko. So far, the genus included the following palearctic species: 1) *S. craniumequinum* Kiritshenko, 1937, living on *Festuca* and *Stipa* spp. in Central Europe and Mongolia (Kosztarab and Kozar, 1988); 2) *S. festucei* (Sulc, 1941), living on *Festuca ovina* in Central Europe (Kosztarab and Kozar, 1988); 3) *S. stipae* Hadzibejli, 1967, living on *Festuca sulcata* and *Stipa lessingiana* in Georgia and Azerbaijan (Hadzibejli, 1973).

Scythia aetnensis n. sp.
(Fig. 1)

Young female, oval elongate in outline, flat; pinkish yellow; 2.4-3.3 mm long and 0.7-1.0 mm wide. Ovipositing female, light reddish; 3.8-4.0 mm long and 1.1-1.4 mm wide. Ovisac enveloping the body, dense, feltlike, up to 5 mm long and 1.4 mm wide, whitish-grey.

Dorsum. Short submarginal conical setae forming two groups on the head, each with 1-7 setae, 10-18 μ m long and 0-3 setae, 5-7 μ m long. Anal lobe with a marginal group of 8-15 truncated conical setae, 14-21 μ m long; 3-5 slender, pointed setae (23-40 μ m long) placed along margin of anal cleft. A few setae, 7 μ m long, on the body margin. All the surface with numerous tubular ducts, each 25 μ m long; inner ductule 16 μ m long and 2 μ m wide, outer ductule 9 μ m long and 1.5 μ m wide. Preopercular pores sieve-like, about 6 μ m in diameter, situated in a median longitudinal cluster of 23-71 pores, extending from anal plates to fifth abdominal segment. Minute circular pores, about 2 μ m in diameter, numerous and scattered over entire dorsum; inner area of pores sieve-like. Heavily sclerotized bilocular pores, with a narrow, slit-like opening surrounded by a dark rim, about 3 μ m in diameter, scattered over entire dorsum. Anal ring poriferous, 40-54 μ m in diameter, with 8 setae, 140-167 μ m long. Anal plates triangular, 54-107 μ m long, 47-760

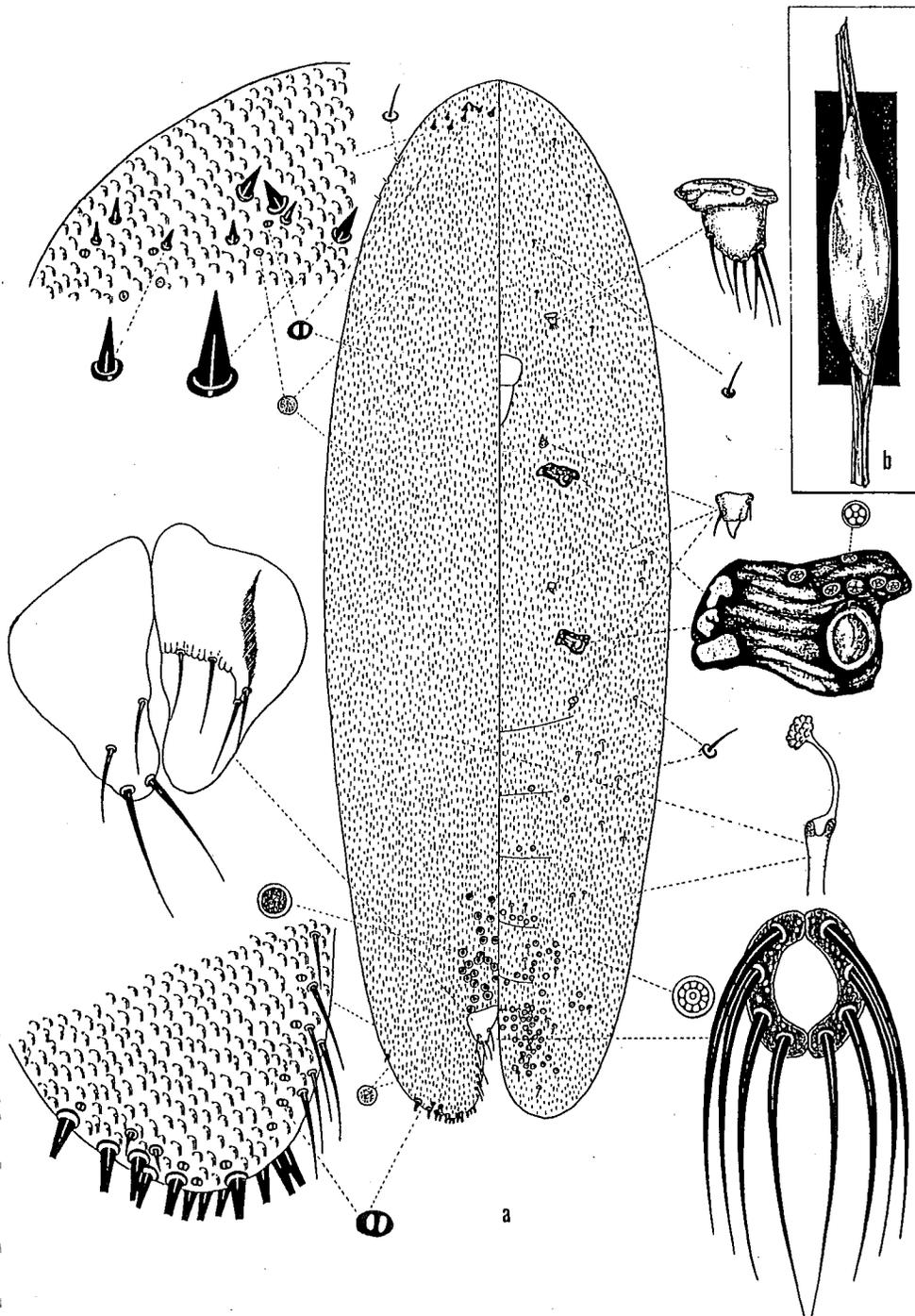


Fig. 1. *Scythia aetnensis* n. sp.: a) adult female, b) ovisac on *Festuca circummediterranea*.

μm wide; anterolateral margin 49–78 μm long, posterolateral margin 49–78 μm long. Each anal plate with 2 apical setae and 2 subapical setae. Anal fold with 4 fringe setae.

Venter. All the surface scattered with numerous tubular ducts of the same size and shape as those on dorsum. Antennae two-segmented, 20–32 μm long, with a tuft of setae, 14–23 μm long, at the apex. Rare ventral cephalic setae, pointed, 6 μm long. Spiracles 85–87 μm long, 43–45 μm wide, with sclerotized frame bearing 3–7 quinquelocular pores, 5 μm in diameter. Legs all reduced to one segment, 11–21 μm long; claw without denticle, 6–8 μm long. Multilocular pores, 7 μm in diameter, with 10 loculi, up to second abdominal segments; more numerous around the vulva, their number decreasing toward preceding sternites. Submarginal setae, pointed, 7 μm long.

Males not observed.

MATERIAL EXAMINED. Holotype ♀, Italy, Galvarina (Catania), on leaf of *Festuca circummediterranea*, 02.08.1989 (RUSSO), deposited in the collection of the Istituto di Entomologia Agraria, Catania, Italy; 8 ♀ paratypes (on leaves and stems), same data as holotype. One paratype is deposited in the Coccoidea Collection, Volcani Center, Bet Dagan, Israel. Additional material (not included in type-series), same locality and host plant as holotype was collected on 02.09.1988, 17.07.1989, 02.08.1989, 02.09.1989, 22.09.1989.

DISCUSSION

Until now members of this genus were known only from Central Europe and Central Asia. The record of this new species from the Mediterranean Basin indicates a wider distribution range of *Scythia* species.

Morphologically this new species is related to *S. festuceti*, differing from it mainly in the shape of dorsal cephalic setae and in the number of anal ring setae. It differs from *S. stipae* in the ventral multilocular pores distribution, in the shape of ventral cephalic setae. It differs from *S. craniumequinum* in the antennae segmentation and ovisac shape.

KEY TO SPECIES OF SCYTHIA

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|---|----------------------------|
| 1. Antennae 3–4 segmented | <i>S. craniumequinum</i> |
| Antennae 1–2 segmented | 2 |
| 2. Ventral multilocular pores placed up to V abdominal segment | <i>S. stipae</i> |
| Ventral multilocular pores placed up to II abdominal segment | 3 |
| 3. Anal ring with 6 setae; dorsal cephalic setae with truncated tip | <i>S. festuceti</i> |
| Anal ring with 8 setae; dorsal cephalic setae conical | <i>S. aetnensis</i> n. sp. |

On Mount Etna, *S. aetnensis* occurs in the lower highmountain plain, essentially formed by the volcanic sands and swept by strong winds where the flora is mainly composed of thorny xerophytes as *Astragalus siculus*, *Festuca*, *Poa* and *Rumex* spp. The climate is similar to the oroxerotheric one, typical of high Mediterranean mountains (Poli, 1965).

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