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NEW LOCALITIES OF *ELAPHOIDELLA NURAGICA* PESCE &  
GALASSI, WITH A DESCRIPTION OF THE FEMALE  
(Copepoda Harpacticoida: Canthocamptidae)\*

**ABSTRACT.** New localities for the harpacticoid *Elaphoidella nuragica* Pesce & Galassi are reported from Sardinia. The female is described for the first time and a full discussion of the species is given.

**Key words:** taxonomy, Copepoda, *Elaphoidella*, Italy.

**RIASSUNTO.** Nuove località per *Elaphoidella nuragica* Pesce & Galassi e descrizione della femmina (Copepoda Harpacticoida: Canthocamptidae). Vengono riportate nuove località di raccolta (ambienti iporreici dei fiumi Giagone e Flumini, Sardegna) per l'arpacticoida *Elaphoidella nuragica* Pesce & Galassi, noto sinora esclusivamente per la località tipica (pozzo di acqua dolce lungo la strada S. Caterina di Pittinuri-Riola Sardo, Oristano, Sardegna). Il nuovo materiale ha permesso la descrizione della femmina ed una ridefinizione dettagliata della specie.

**Parole chiave:** tassonomia, Copepoda, *Elaphoidella*, Italia.

In a previous paper (Pesce & Galassi, 1986), the harpacticoid *Elaphoidella nuragica* was described from the phreatic waters of Sardinia. At that time only one male specimen and an immature female were available, so the description was rather brief and incomplete. The recent discovery of numerous males and females, both from the type-locality and other hyporheic habitats of Sardinia, now allows us to give a new detailed description of this species.

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Family CANTHOCAMPTIDAE Sars 1906, cf. Lang, 1948

Genus *Elaphoidella* sensu Apostolov, 1985

*Elaphoidella nuragica* Pesce & Galassi, 1986

(figs. 1-9)

MATERIAL. 1 ♀ (allotype) and 2 ♂♂ (paratypes), completely dissected and mounted on coverlips in Faure's medium; freshwater well along the main S. Caterina di Pittinuri-Riola Sardo road (Oristano, Sardinia) (type-locality); 2.XII.1979, coll. G.L. Pesce, D. Maggi, and G. Silverii (senior Author's collection, at the Dipartimento di Scienze Ambientali [Dept. of Environmental Sciences], University of L'Aquila, Italy). 7 ♀♀, 5 ♂♂, dissected and mounted as above; hyporheic habitat of the Giagone river (Sassari, Sardinia); 400 m a.s.l., 25.V.1986, coll. R. Gerecke. 1 ♂, dissected and mounted as above; hyporheic habitat of the Flumini river (Cagliari, Sardinia); 170 m a.s.l., 31.V.1986, coll. R. Gerecke. (Collections of the Museo Civico di Storia Naturale, Verona).

DESCRIPTION. Female. A small *Elaphoidella*: slender body, total length, excluding antennulae and furcal setae, 495-505 µm. Posterior dorsal margin of thoracic and abdominal somites denticulate; posterior ventral margin of genital, postgenital and terminal somites with row of small denticles; anal somite with 4-5 spines at basis of each furcal ramus. First two abdominal somites fused together; «receptaculum seminis» as in fig. 2.

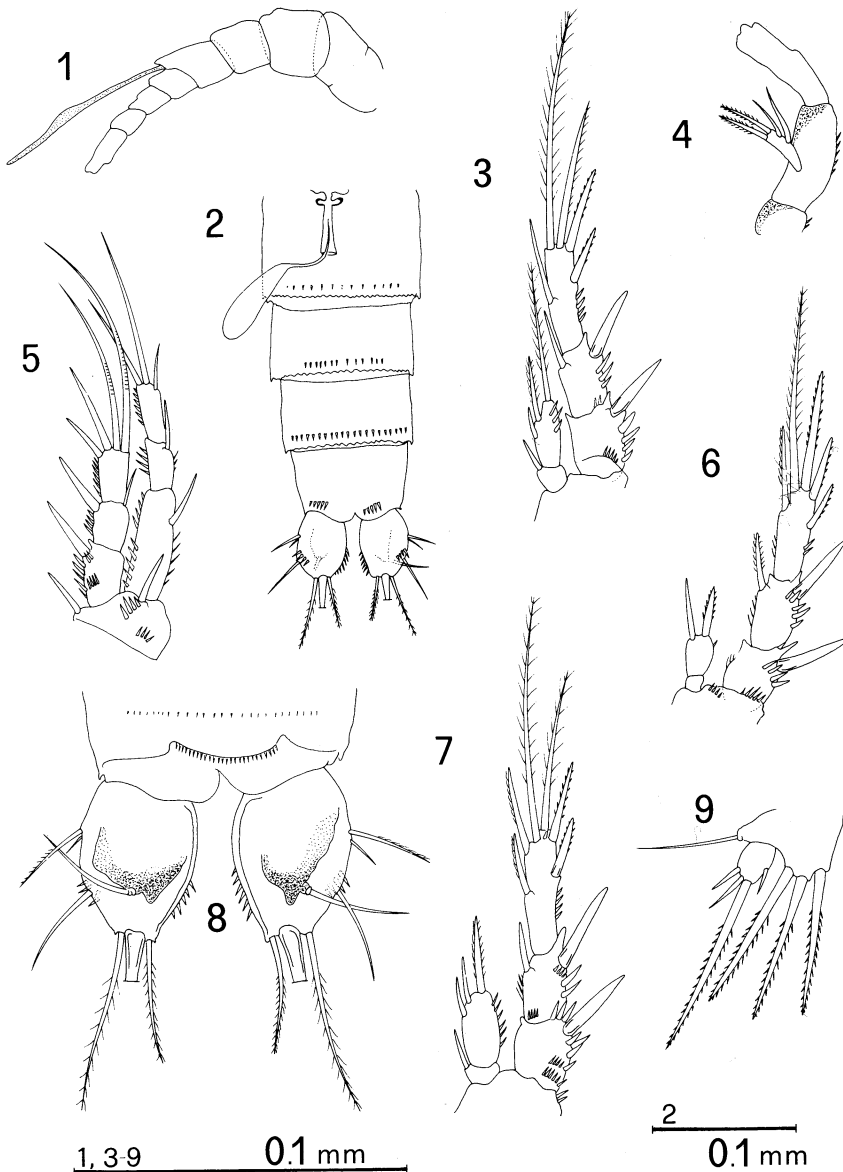
Anal operculum slightly convex and armed with numerous hair-like spinules.

Furcal rami subovoidal, 1.28-1.30 times longer than wide, with spinules along inner margin; outer margin with 2 long and one short setae and 3-4 spinules; distal margin with 3 setae, the outermost about 1.5 times longer than the innermost, the medial being the longest; dorsal seta implanted on very conspicuous protuberance, not elongated, about as long as inner apical seta.

Antenna 1: 8-segmented, aesthetasc on segment 4 long, overlapping distal segment. Antenna 2: exopod 1-segmented, armed with 2 apical and 2 subapical setae.

Mouthparts without particular characteristics.

Leg. 1: both rami 3-segmented, endopod longer than exopod. Legs 2 to 4 with 3-segmented exopod and 2-segmented endopod. Setal formula of legs 1 to 4 listed below.



Figs. 1-9. *Elaphoidella nuragica* Pesce & Galassi. Female. 1) Antennula; 2) abdomen and furcal rami, ventral view; 3) P<sub>2</sub>; 4) antenna; 5) P<sub>1</sub>; 6) P<sub>4</sub>; 7) P<sub>3</sub>; 8) furcal rami and anal operculum, dorsal view.

	exopod			endopod		
P <sub>1</sub>	o	I	022	I	I	III
P <sub>2</sub>	o	I	122	—	I	210
P <sub>3</sub>	o	I	222	—	I	210
P <sub>4</sub>	o	I	122	—	o	020

Leg. 5: basiendopod armed with 3 long spines; exopod well developed, armed with 4 spiniform setae, the medial being the longest.

Male. Body length, 380-475  $\mu\text{m}$ ; ornamentation like female.

Furcal rami subconical and longer than in female. Antenna 1 geniculate. Endopod of leg 3 with characteristic, transformed spine on second segment and 2 subequal apical, plumose setae on distal segment. Endopod of leg 4: distal segment armed with one distal and 2 subdistal setae. Leg. 5: basiendopod naked, exopod broader than long, armed with 3 short setae and one stout, long apical spine. Other characteristics as in female.

REMARKS. *E. nuragica* belongs to the «*simplex*-group» of species sensu Apostolov (1985), most resembling *E. longifurcata* Chappuis & Kiefer, 1952 and *E. mauro* Chappuis, 1952, both from groundwater habitats in France. From the above taxa, as well as from the other species making up the «*simplex*-group», *E. nuragica* can be easily distinguished by the armature of the endopod of female P<sub>4</sub>, the female P<sub>5</sub>, and by the morphology of the female furcal rami.

The species is to date endemic to Sardinia.

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