

ON THE STATUS OF THE GENUS SPELAEOMYSIS CAROLI
(CRUSTACEA: MYSIDACEA)

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خلاصه فارسی

مجدد آن می‌پردازم و در این مقاله از چند نمونه از منطقه غار اتزولوزا و اوتزاتو استفاده کرده و یک نئوتیپ جدید تعیین کرده‌ام. علاوه بر چندین نمونه فعلی از این گونه نمونه‌های دیگری که از منطقه جدید در حوالی گالی-پولی (Pesce, 1970) و همچنین در یک چاه آرادو (Aradeo Lecce Itali) بجست آمده‌اند در شرح و توصیف گونه مزبور مورد استفاده قرار گرفته‌اند.

از مهمترین اختصاصات گونه خط درز سینوس بین اگزوپود و اوروپود، خاردار بودن تلمسون و بعلاوه دی مورفیسیم جنسی پله بود ۲ می‌باشد.

در مقاله‌ای که اخیراً (Pesce ۱۹۷۵) بمنظور معرفی یکی از نقاط جدید انتشار گونه غارزی موسوم به *Spelae Omysis Bottazzii* منتشر کردم توصیف مجددی از ویژگیهای تاکزونومیک این گونه جدید که مدتها مورد بحث بود بعمل آوردم. تاکنون *S. bottazzii* را کم و بیش زیر گونه از جنس تیپ (*Spelaemysis* (Dowani 1973) می‌شناختند که توصیف نسبتاً ناقصی از ویژگیهای تاکزونومیک آن توسط *Caroli* (1924) بعمل آمده بود.

چون توصیفی که از گونه تیپ به عمل آمده است کامل نبود و از طرفی نمونه تیپ *Caroli* نیز اکنون مفقود شده است خود به شرح

In a recent paper (Pesce, 1975) regarding a new locality for the hypogean mysid *Spelaeomysis bottazzii* Caroli I have reported the redescription of this interesting and too debated species.

Until now *S. bottazzii*, which is moreover considered the typespecies of the genus *Spelaeomysis* (Bowman, 1973), was only known from a preliminary and inadequate description by Caroli (1924).

Just the incompleteness and so the imperfection of this description, and also the verified loss of the "monotype" by Caroli, prompted me to take up the redescription of this species on several types I collected in the type locality (Zinzulusa Cave, Otranto, Italy), and moreover to select a neotype. Besides, many other specimens of this species I have collected from two new localities, near Gallipoli (Pesce, 1975) and also in a man-made well in Aradeo (Lecce, Italy), were examined for the over said redescription.

Now the new and original remarks I have added to the previous description give a better and complete knowledge of this species, fully justifying its retention in the genus *Spelaeomysis*. Also I have so proved the real homogeneity of this genus, confirming at last the very close relationship among all the species which belong to *Spelaeomysis*.

Therefore I have deemed it was necessary now to revise this mysid in relation to the new features I have observed on *Spelaeomysis bottazzii* and, above all, the sinuous suture on the exopod of uropod, the particular spinulation of the telson and the ascertainment of the sexual dimorphism of the pleopod (2).

All the other generic and specific features I report, are mostly taken from the literature.

FAMILY LEPIDOMYSIDAE Clarke 1961

Lepidophthalmidae Fage 1924

Lepidopidae Stammer 1936

Lepidosidae Villalobos 1951
 TYPE GENUS *Lepidomysis* Clarke 1961
Lepidophthalmus Fage 1924
Spelaeomysis Caroli 1924
Lepidops Zimmer 1927
Typhlepidomysis Villalobos 1951
Lepidomysis Clarke 1961
Keralomysis Pillai and Mariamma 1963
 GENUS *Spelaeomysis* Caroli 1924
 TYPE SPECIES *Spelaeomysis bottazzii* Caroli
 1924

Diagnosis—Hypogean mysids showing the typical "caridoid facies". All blind, with two quadrangular ocular scales (one in *S. longipes*), without visual elements except *S. servatus* Fage and *S. cardisomae* Bowman with few lateral ommatidia.

Carapace rather long, produced into antero-lateral and postero-lateral rounded lobes, the latter reaching pereonite 7 or beyond. Thoracic tergites 6 and 7 dorsally exposed. Typical dorsal scale on the pereonite 6, which is directed forward and overlap posterior border of carapace. Cervical sulcus absent. Pleon depressed and somewhat long. Telson subtriangular or linguiform with spinulation on the rounded distal margin (also in *S. bottazzii*) and partly or fully on each lateral margin; for the most part distal spines on the apex stronger and longer than the other ones. Antennular and antennal flagella as long as the length of the body in *S. servatus*; shorter than the body in *S. cardisomae*; longer in the other species. (Antennular and antennal flagella of *S. olivae* reported as broken and hence unknown). Labrum ovoidal, usually longer than wide; labium with separated lobes, shorter than in *Stygiomysidae*. Mandible with well developed molar and incisor processes; palp, 2nd and 3rd segments with a row of strong spines. First maxilla small for the most part, with a 2-merous palp ending in a long curved seta. Second maxilla supplied with many setae, some distally plumose. Maxilliped with well developed endites, quite setose, and slender epipodite; penultimate segment of endopod broadened; exopod consisting of an oval plate with 1-2, or without, fine apical setae. Pereopod 1 with exopod longer than endopod which may be transformed in a prehensile gnathopod. Pereopods 2-7 with ambulatory endopods; penultimate segment of endopod not subdivided. Pereopod 7 with an internal penial lobe (non vidi in *S. bottazzii*).

Pleopods biramous, increasing in size from the first to the fifth pair, with endopod 1-merous and exopod 3-merous, except female pleopod 2 which is 4-merous. With the exception of *S. quinterensis*, chitinous lamella start between the bases of pleopods 3-4-5 and not incorporating the protopods. In *S. longipes* there are

chitinous lamella between the first five pleopods and "probably on the sixth also" and they consist of "a pair of widely separated lobules which increase in size from the first to the fifth" (Pillai and Mariamma, 1964).

Uropod protopod, inner lobe with a small backward prolongation armed with an apical spine, except in *S. quinterensis*; statocist absent; exopod 2-merous with an undulate suture between segments, also in *S. bottazzii* (Pesce, 1975).

Seven pair of oostegites.

Remarks—According to Gordon (1960) and Pillai and Mariamma (1964), the presence of a prolongation on the protopod of the uropod and, moreover, the chitinous lamella should show a close relationship between *Lepidomysidae* (*Spelaeomysis*) and *Stygiomysidae* (*Stygiomysis*). However I think that, whether the knowledge of the *Lepidomysidae* is now complete enough, on other sides the family *Stygiomysidae* would necessitate a revision.

In reality, up to this time, *Stygiomysidae* include only the two species *S. holthuisi* Gordon (1960) and *S. hydruntina* Caroli (1937); for the latter one there is, moreover, only a preliminary and unfinished description by Caroli (1937), who, at any rate, clearly distinguished one family from the other.

Therefore, also in my opinion it is now difficult fully to compare the two families even if there are some affinities between them. However it is hoped that other species of *Stygiomysis* and *Spelaeomysis* will be found and studied, so that we can assure the real affinity between these families, as Gordon (1960) states, and moreover their exact taxonomic status.

Distribution—Up the present time seven species of mysids belonging to the genus *Spelaeomysis* are known from hypogean habitats in Central and South America, India, Zanzibar and South Italy:

- Spelaeomysis bottazzii* Caroli 1924
 (From Zinzulusa Cave and from phreatic waters the Apulia country, Italy).
- Spelaeomysis servatus* Fage 1924
 (From subterranean brackish waters in the Isle of Zanzibar).
- Spelaeomysis quinterensis* Villalobos 1951
 (From Quintero Caves, Tamaulipas, Mexico)
- Spelaeomysis longipes* Pillai and Mariamma 1964
 (From a well at Kottayam, Kerala, India).
- Spelaeomysis nuniezi* Bacescu and Orghidan 1971 (From Caves of Cuba).
- Spelaeomysis olivae* Bowman 1973

(From Cueva del Nacimiento, Oaxaca, Mexico).

—*Spelaeomysis cardisomae* Bowman 1973

(From *Cardisoma* burrows in Isla San Andrés, Columbia and from Boca del Rio Tumbes, Peru).

The genus *Spelaeomysis* once considered endemic for the Apulia country (Ruffo, 1955) at the present time shows a wide geographical distribution.

Moreover the discontinuous localization of the

species belonging to this genus testify to its antiquity and to the close faunistic relationships among the American and the Indo-Pacific areas. In this connection Ruffo (1955, 58) put forth the hypothesis of a palaeomediterranean (Tethys Sea) origin of this mysid, and I share this opinion. Also for the same reason I think very probably this mysid may really be much more widespread than the rare and occasional researches made until now show.

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