

# The Gastropoda of Meteor 48

Bernhard Ruthensteiner<sup>1</sup> & Emilio Rolán<sup>2</sup>

<sup>1</sup> Zoologische Staatssammlung München, Münchhausenstr. 21, 81247 München, Germany

<sup>2</sup> Cánovas del Castillo 22, 5F, 36202 Vigo, Spain



## Introduction:

During the last decades the gastropod fauna of the Atlantic Ocean has been investigated by a number of studies (e.g. Hain, 1990; Bouchet, 1975, 1977; Warén, 1989, 1991, 1993; Mikkelsen, 1995). Clarke (1961), Fechter (1979), Bouchet & Warén (1979, 1986, 1993) and Kilburn & Herbert (1995) focused on the deep water fauna. The majority of papers, however, were dealing with the northern hemisphere. Only Clarke (1961) investigated material of a geographically related area, gastropods from the Vema expedition in the South Atlantic Ocean in 1957. This study concentrates on microgastropods, hardly any of which have been found in the six stations located in the Angola Basin. Therefore, the gastropod fauna of that area is mostly unknown and a reinvestigation appears useful.

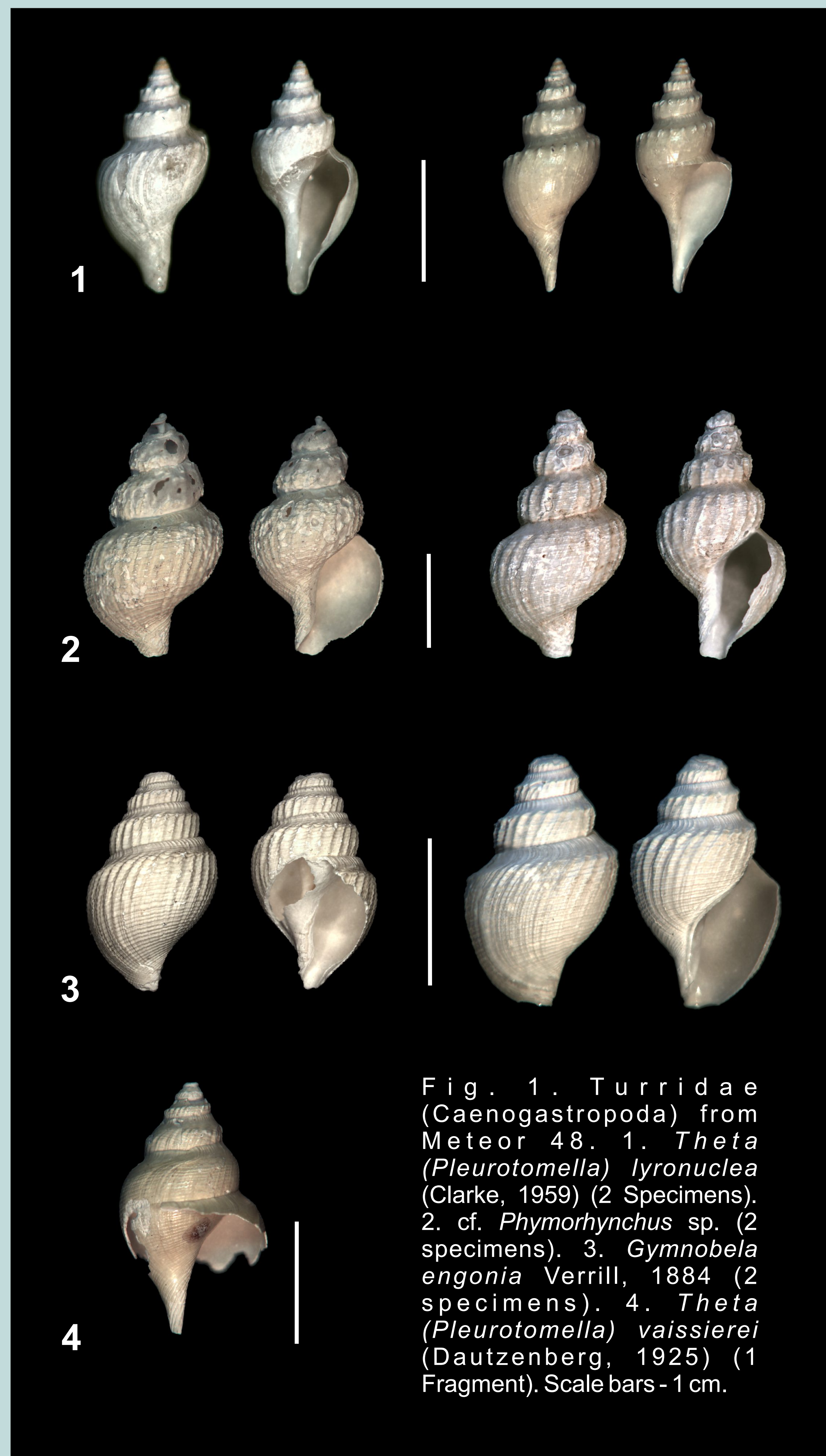


Fig. 1. Turridae (Caenogastropoda) from Meteor 48. 1. *Theta (Pleurotomella) lyronuclea* (Clarke, 1959) (2 Specimens). 2. cf. *Phymorhynchus* sp. (2 specimens). 3. *Gymnobela engonia* Verrill, 1884 (2 specimens). 4. *Theta (Pleurotomella) vaissierei* (Dautzenberg, 1925) (1 Fragment). Scale bars - 1 cm.

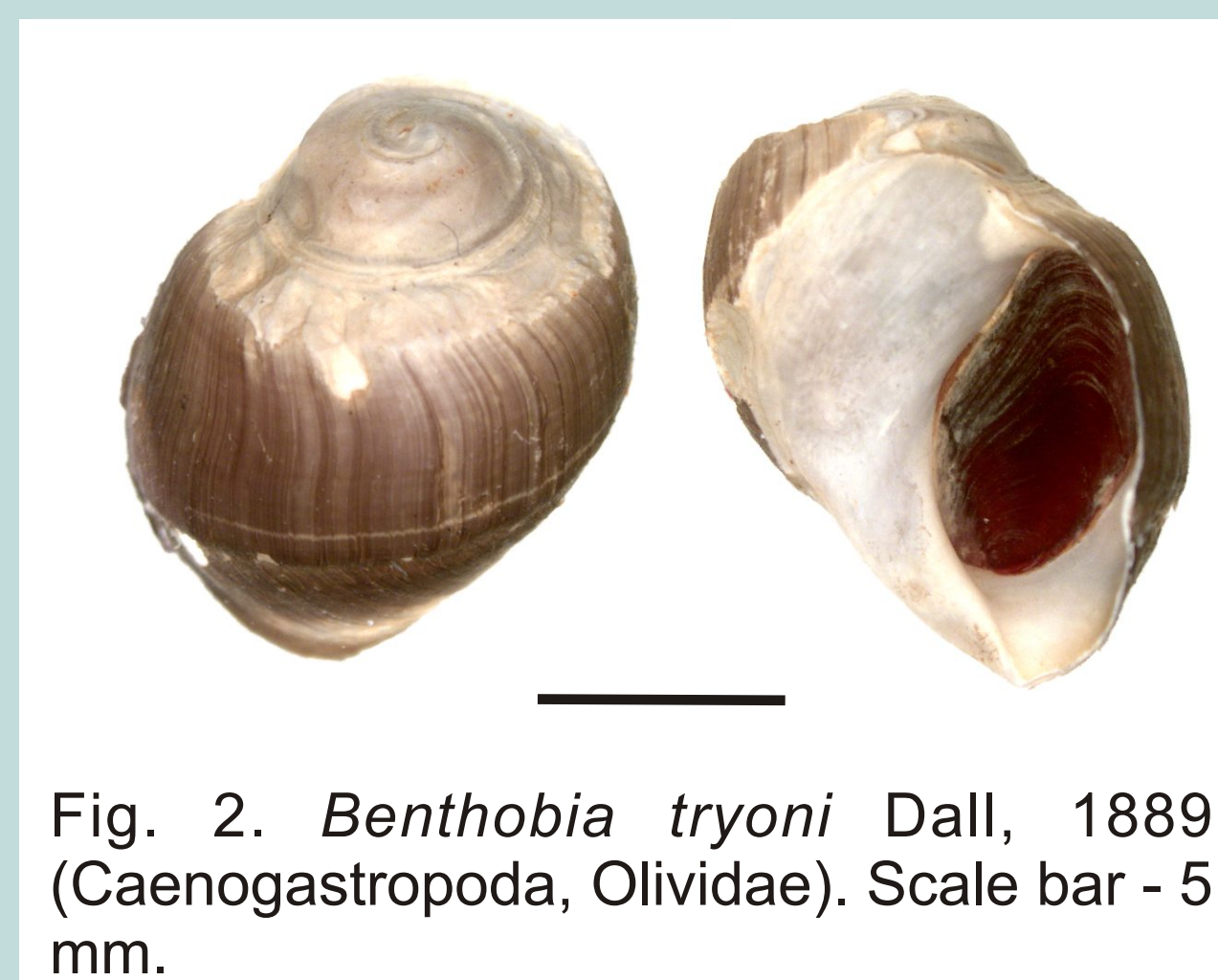


Fig. 2. *Benthobia tryoni* Dall, 1889 (Caenogastropoda, Olividae). Scale bar - 5 mm.



Fig. 3. *Cylichnium* cf. *waldae* Bouchet, 1975 (3 Specimens). Scale bar - 1 cm.

taxon	system	specimens	working area
<i>Benthobia tryoni</i> Dall, 1889	Olividae, Caenogastropoda	1	V
cf. <i>Phymorhynchus</i> sp.	Turridae, Caenogastropoda	2	III
<i>Theta (Pleurotomella) vaissierei</i> (Dautzenberg, 1925)	Turridae, Caenogastropoda	1	III
<i>Gymnobela engonia</i> Verrill, 1884	Turridae, Caenogastropoda	7	III u. IV
<i>Theta (Pleurotomella) lyronuclea</i> (Clarke, 1959)	Turridae, Caenogastropoda	7	III - VI
<i>Cylichnium</i> cf. <i>waldae</i> Bouchet, 1975	Cephalaspidea, Opisthobranchia	11	IV - (mainly) VI

Table. Macrogastropods of the Meteor 48 Cruise

## Results and Conclusions:

The gastropod material from the Meteor 48 cruise closely resembles that of other deep sea expeditions. Very similar material has been revealed by the Meteor cruises 3 (1966) and 15 (1968) in an area located further north, the Iberian deep sea, with a number of identical species (e.g. Fechter, 1979). The dominating macrogastropoda belong to the caenogastropodan family Turridae. One species of Olividae, *Benthobia tryoni* is present in the material examined in the present the study and in that of Fechter (1979 (incorrectly identified as *Neverita nana* (Moeller, 1842)). Both samples by far represent the deepest reports of olivid gastropods found ever. Three minute specimens of different skaeneid taxa also came along with the material. With the possible exception of one turrid species all macrogastropods are known taxa, which have a wide range of distribution. This allows to conclude that abundance and species diversity of (macro-)gastropods in soft sediment areas of the deep sea are low.



Fig. 4. Juvenile Macrogastropods from Meteor 48.

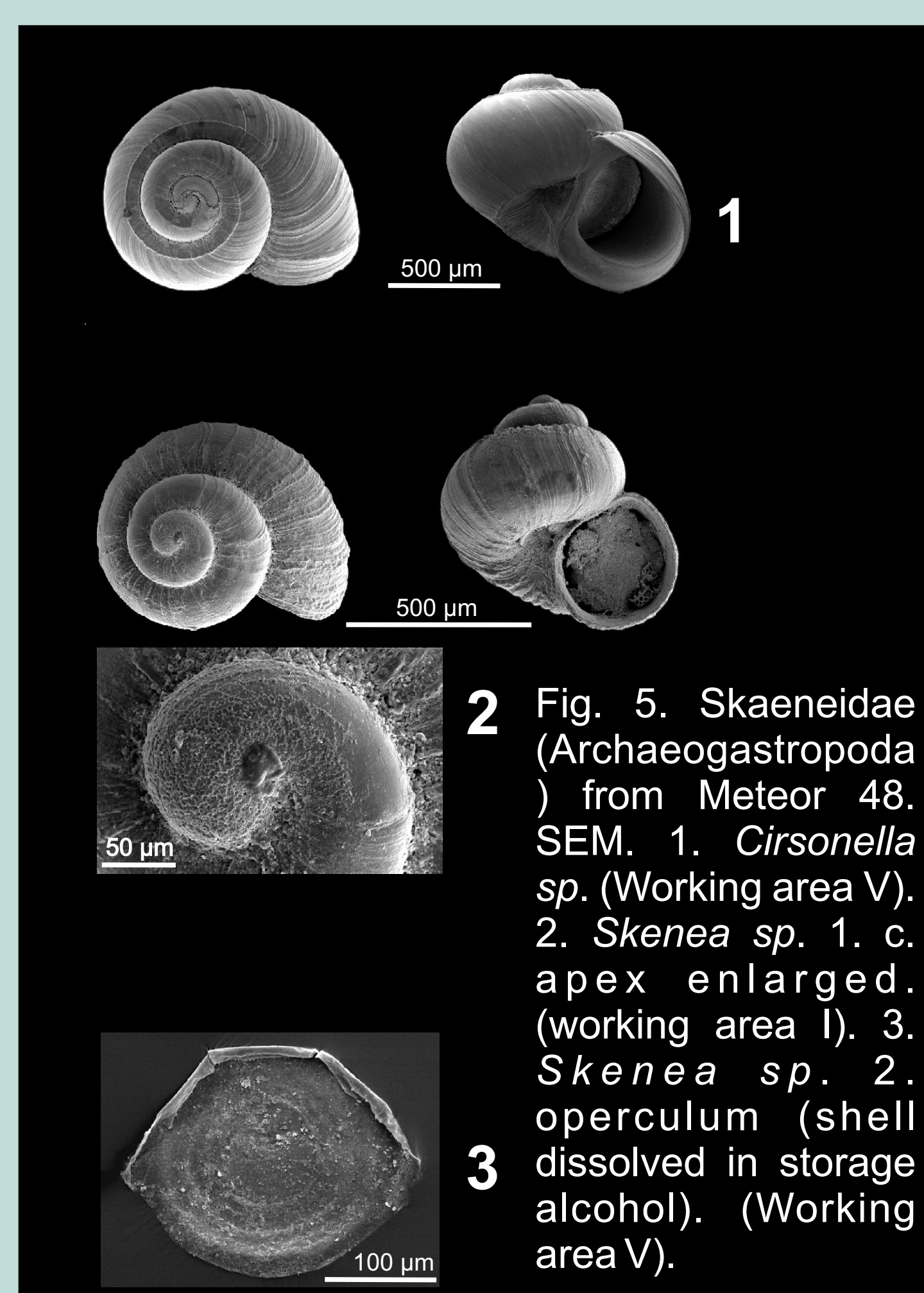


Fig. 5. Skaeneidae (Archaeogastropoda) from Meteor 48. SEM. 1. *Cirsonella* sp. (Working area V). 2. *Skenea* sp. 1. c. apex enlarged. (working area I). 3. *Skenea* sp. 2. operculum (shell dissolved in storage alcohol). (Working area V).

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