

Claudio Bongiardino & Pasquale Micali

**First record of *Lissotesta cf. scalaroides* Rubio & Rolán, 2013  
from the Pliocene of Romagna**

(Gastropoda: Prosobranchia: Turbinidae)

**Abstract**

The study of fossil malacological material of Pliocenic age, collected at Torre di Ceparano (Brisighella, Ravenna), provided three specimens dubitatively identified as *Lissotesta cf. scalaroides* Rubio & Rolán, 2013. This species, based on recent material from north-east Atlantic (700-1000 m), is characterized by the scalariform outline. This is the first fossil record.

Key words: Gastropoda, Turbinidae, *Lissotesta*, Pliocene, Romagna, Italy.

**Riassunto**

[*Prima segnalazione di Lissotesta cf. scalaroides* Rubio & Rolán, 2013 nel Pliocene di Romagna (Gastropoda: Prosobranchia: Turbinidae)]

Lo studio di materiale malacologico dalla località di Torre di Ceparano (Brisighella, Ravenna), riferito al Pliocene, ha fornito tre esemplari dubitativamente determinati *Lissotesta cf. scalaroides* Rubio & Rolán, 2013. Questa specie, basata su materiale dall'Atlantico nord-orientale (700-1000 m), è caratterizzata dal profilo scalariforme. Questa è la prima segnalazione allo stato fossile.

**Introduction**

The present note is focused on a species found in shell grit collected in the material excavated for the realization of a long water canal, on the side of a plough up field at Torre di Ceparano (Brisighella, Ravenna). With reference to the zones identified by RUGGIERI (1962), the clays in this area may be referred to biostratigraphic zone “B” characterized as “Zona senza *Globototalia hirsuta* e senza *Arctica islandica* ... con faune a caratteri ancora nettamente pliocenici [zone lacking both *Globototalia hirsuta* and *Arctica islandica* ... with faunas still having clearly Pliocenic character]”. Therefore dated as Piacenzian.

The material collected along the canal is not uniform: somewhere there is a mix of clays and calcareous sandstone transported from nearby outcrops, containing material from different biocoenoses, from infralittoral to bathyal, while in some other points the clays seem to be in the original position. The purpose of this note

is to report the presence in the Pliocene of this species, up to now only known from recent Atlantic material. The presence of species currently living at bathyal depth in the north-eastern Atlantic, in the Pliocenic deep-sea deposits of Romagna, is discussed by TABANELLI (2008).

### Material and methods

The clay sample (about 5 kg) has been manually collected following a small excavation for realization of a water canal at the side of a plough up field (coordinates approx.: 44°11'59.18" N; 11°50'09.26" E). The micro molluscs were obtained by manually sorting out the shell grit.

Three specimens of a species dubitatively identified as *Lissotesta* cf. *scalaroides* were found: the largest specimen (Fig. 1) is 0.78 mm high, the second one of about same size was broken during handling, the third one is 0.69 mm high. The specimens are preserved in the collection of the first author.

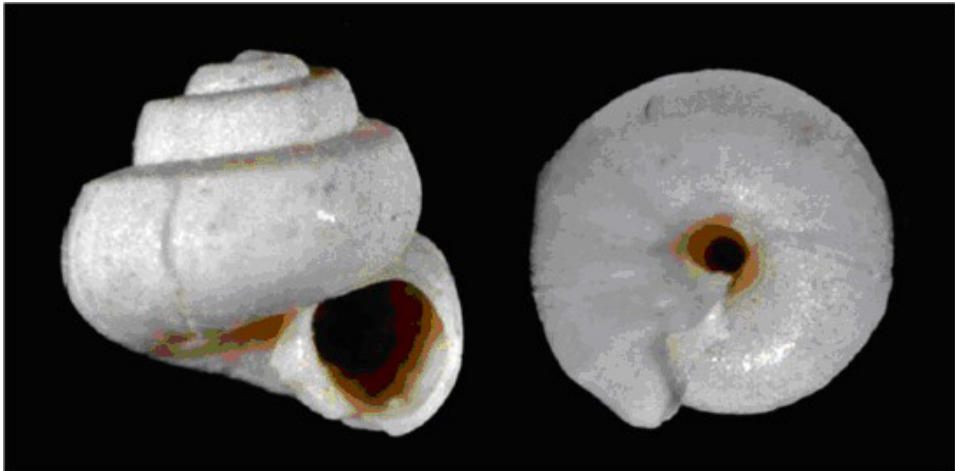


Fig. 1: *Lissotesta* cf. *scalaroides* Rubio & Rolán, 2013, Torre di Ceparano (Brisighella, Ravenna). Pliocene, h = 0.78 mm.

### Results

*Lissotesta scalaroides* Rubio & Rolán, 2013 was described on a single specimen dredged at the Galicia Seamount (42° 67' N, 11° 74' W), 200 km off Galicia coasts, at a depth of 700-1000 m. The species is characterized by the small dimensions, the stepped outline and the presence of a microsculpture consisting of micro-pits and growth lines. The fossil specimen at Fig. 1 has about three teleoconch whorls, a protoconch consisting of about 0.75 whorls, with a diameter of about 170  $\mu$ m, as in *L. scalaroides*. The extension of microsculpture on the teleoconch is not

detectable due to the poor state of conservation of the specimen. With respect to the holotype of *L. scalaroides*, there is a slight difference in the height/diameter ratio, that in the holotype is about 1.15, while in the fossil specimens is about 1.0. The spiral ribs around and inside the umbilicus are present, but very weak.

The height/diameter ratio close to 1.0 is a characteristic of *Mikro hattonensis* Hoffman et al., 2008, described from the Hatton Bank (Northeastern Atlantic Ocean) at a depth of 796 m, but this species has a smaller protoconch, consisting of 1.2 whorls, with a diameter of 130  $\mu\text{m}$ . The spiral ribs, one around the umbilical area and another one inside the umbilicus are stronger than in *L. scalaroides*.

To *L. scalaroides* or *M. hattonensis* could be referred the specimen from Madeira, depth 407 m, figured in SEGERS et al. (2009, pl. 87, fig. 3, 3a) as *Trochaclis* sp., showing an height/diameter ratio around 1.0.

A fossil species showing a remarkable similarity is *Tubiola subangulata* Schnetler & Beyer, 1990 from the late Oligocene of Denmark. That species shows a very depressed outline (height/diameter ratio close to 0.82 in the figured holotype), a protoconch consisting of 0.5 whorls. The original description indicates only one spiral rib around the umbilicus. Growth lines are indicated as almost orthocone, as in the two recent species. No indication about presence of micropits on the teleoconch.

The presence of three very similar species, differing for barely detectable characters, as the microsculpture, or possibly variable, as the strength of spiral ribs, along with the differences that may occur due to long temporal distance between the described species and the studied specimens, makes difficult a precise determination. Anyway we consider that this record is interesting and could be a link of the long chain between one Oligocenic and two very similar recent species.

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Authors' addresses:

Claudio Bongiardino

via Menotti, 83 I-48122 Marina di Ravenna (RA), Italia

*e-mail*: claudiobongia@gmail.com

Pasquale Micali

via Papiria, 17 - I-61032 Fano (PU), Italia

*e-mail*: lino.micali@virgilio.it