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A NEW SPECIES OF *MANSFIELDELLA* (GASTROPODA: OLIVIDAE: OLIVELLINAE)
FROM THE PLEISTOCENE BERMONT FORMATION OF SOUTHERN FLORIDA

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Mansfieldella, an olivelline gastropod genus, was erected by Olsson and Harbison (1953, p. 188). It is distinguished from other genera within the Olivellinae by a heavily developed parietal callus, which spreads thickly over the surface of the spire-whorls covering the sutures except the final half of the last whorl, and a strongly lirate pillar structure in which the anterior and posterior lirations are enlarged and tooth-like. Until now the genus included a single species, *Olivella (Mansfieldella) pugilis*, described by the authors in the same work. *Mansfieldella pugilis*, a relatively common and distinctive shell, was originally described from the Pliocene of St. Petersburg and is common in the Pliocene Pinecrest Beds at Sarasota, Florida.

During a field trip in November, 1992, to Palm Beach County, Florida, Palm Beach Rock Co. quarry was visited on several occasions. The quarry is situated on the north side of U.S. Highway 441, three miles west of Loxahatchee. Most of the quarried rock consists of whitish coral and coral rubble with sands rich in molluscs. The shell assemblage is Bermont

Formation, characterised by *Strombus evergladesensis* Petuch, 1991, *Jenneria loxahatchiensis* M. Smith, 1936, and *Zonaria (Prozonaria) portelli* (Petuch, 1990). In the centre of the quarry were a few mounds of finer grey sands, dredged from below the coral-rich layer. Within these sands were large numbers of *Mansfieldella robbiae*, n. sp., in association with *Niveria pediculus pediculus* (Linné, 1758) and *Nitidella nitida* (Lamarck, 1822).

SYSTEMATIC PALEONTOLOGY

Class GASTROPODA
Order NEOGASTROPODA
Superfamily VOLUTOIDEA
Family OLIVIDAE
Subfamily OLIVELLINAE
Genus *MANSFIELDELLA* Olsson and Harbison, 1953

Mansfieldella OLSSON and HARBISON, 1953, *Acad. Nat. Sci. Phila.*, Mon. 8, p. 188.

Type species: *Olivella (Mansfieldella) pugilis* Olsson and Harbison, by original designation.

MANSFIELDELLA ROBBIAE
Landau, n.sp.
Plate 1, figures 1-3

Mansfieldella cf. *pugilis* (Olsson and Harbison).
PETUCH, 1994, *Atlas of Florida Fossil Shells*, pl. 84, fig. E.

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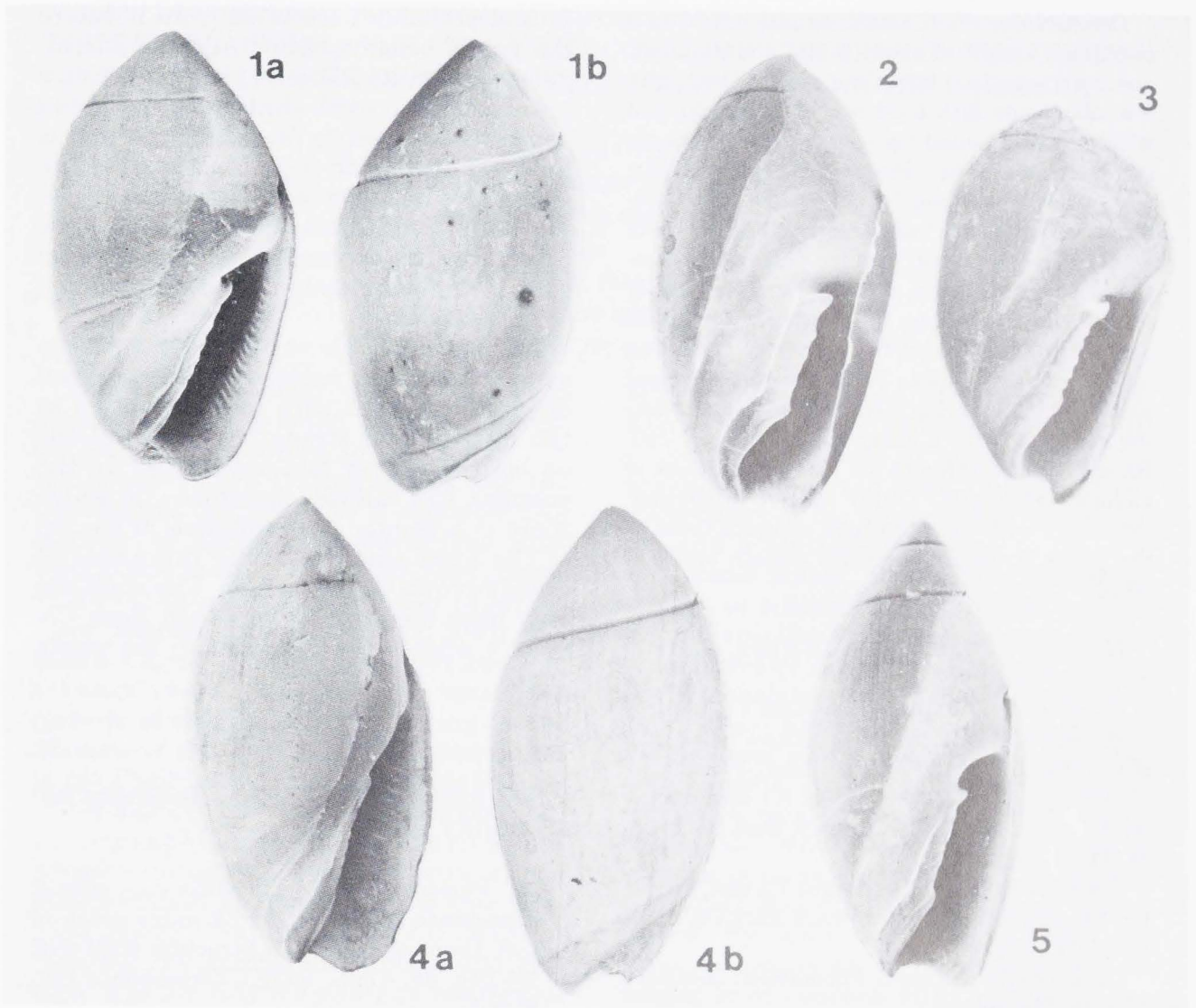


PLATE 1

1-3. *Mansfieldella robbieae* Landau, n. sp.

1. (X 6) UF 71296 (holotype); height 8.0 mm, diameter 4.7 mm.
2. (X 6) UF 71297 (paratype A); height 8.1 mm, diameter 4.7 mm.
3. (X 6) UF 71298 (paratype B); height 7.3 mm, diameter 4.6 mm.

Locality of all: Palm Beach Rock Co. quarry, Palm Beach County, Florida; Bermont Formation.

4-5. *Mansfieldella pugilis* Olsson and Harbison, 1953

4. (X 5) UF 71299; height 11.2 mm, diameter 6.0 mm.
Locality: TU 769, Kissimmee River, Florida; Pinecrest Formation.
5. (X 6) UF 71300; height 8.3 mm, diameter 4.0 mm.
Locality: TU 1000, Sarasota, Florida; Pinecrest Formation.

Description: Shell small, squat, reaching a maximum height of about 8 mm and diameter about 4.5 mm, oval in outline, solid. Shell spire low, about one fifth total height, apex rounded with a small pointed tip visible in less strongly callused specimens. Protoconch, spire whorls, and sutures obscured by callus. Deep groove-like suture between body whorl and spire. Body whorl sub-cylindrical, antero-posteriorly flattened, contracted in zone of fasciolar band. Parietal callus strong, thickest opposite apical end of aperture and from there spreading upwards to tip of apex. Pillar structure a raised plate or shelf carrying a strong fold below, rotating outward, with a sharp tooth at apical end. Between these three to six smaller lirations of variable strength. Outer lip not thickened, internally with long lirations opposite those of the pillar structure. Surface smooth and polished.

Holotype: UF 71296; height 8.0 mm, diameter 4.7 mm (Plate 1, fig. 1).

Type locality: Palm Beach Rock Co. quarry north side of U.S Highway 441, three miles west of Loxahatchee, Palm Beach County, Florida.

Paratype A: UF 71297; height 8.1 mm, diameter 4.7 mm; locality, Palm Beach Rock Co. quarry (Plate 1, fig. 2).

Paratype B: UF 71298; height 7.3 mm, diameter 4.6 mm; locality, Palm Beach Rock Co. quarry (Plate 1, fig. 3).

Occurrence: Bermont Formation, southern Florida; Pleistocene.

Etymology: named after Dr. Sheila Robbie of the University of the Algarve, Portugal, Professor of Languages and amateur fossil enthusiast, who first collected this small shell.

Discussion: Specimens of *Mansfieldella robbiae* were first collected by Dr. Robbie and myself in 1992 and donated for description to Dr. Edward Petuch of Florida Atlantic University. In his recent monograph on the fossil shells of Florida (1994, pl. 84, fig. E) he has figured the specimen donated as *M. cf. pugilis*. This unusual little shell, being only the second member of the genus *Mansfieldella*, deserves more attention.

The new species, although obviously closely related to *M. pugilis* (pl. 1, figs. 4,

5) and probably descended from it before the genus became extinct, can be distinguished from its Pliocene predecessor at a glance by the oval shape and rounded spire, as opposed to *M. pugilis*, which is bullet-shaped with a pointed spire. The sutures on the spire whorls, which are visible in *M. pugilis*, except where they are covered by the upwards spreading parietal callus, are completely obscured by callus in *M. robbiae*.

There seems little variation between the specimens of *M. robbiae*. The size and shape is constant with some variation in the number and strength of the lirations on both the inner and outer lips. In the younger, less callused specimens, in which there is a pointed mammillation at the tip of the apex this has some remnants of orangy-brown pigmentation. The shell has only been found at Palm Beach Rock Co. quarry where it is abundant in the sandy facies.

LOCALITY DATA

The following are Tulane University fossil locality numbers:

769. Pinecrest beds, spoil banks east side of Kissimmee River, 1 1/2 to 2 miles south of U.S. Corps of Engineers Structure 65-D (NE 1/4 Sec. 35, T36S, R33E), Okeechobee Co., Florida.
1000. Pinecrest beds, APAC pits at east end of 17th Street (T36S, R19E), about 8 miles east of U.S. Highway 301 at Sarasota [now north west corner of Fruitville exit, I-75], Sarasota Co., Florida.

LITERATURE CITED

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