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DESCRIPTION OF A NEW SPECIES OF PHYSA  
FROM THE PLEISTOCENE<sup>1</sup> OF FLORIDA

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Mr. M. D. Barber, of Knoxville, Tennessee, recently sent to me a series of Pleistocene fossils from the canal banks at West Palm Beach, Florida, and at the same time a similar lot was sent to the United States National Museum and turned over to Mr. W. B. Marshall. All of the species contained in these two lots, with the exception of *Planorbis scalaris* Jay, and *P. duryi* Wetherby, seem to be new. Mr. Marshall has kindly allowed me to describe the Physa. The other species will be described by him in another paper.

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<sup>1</sup> This species is only tentatively placed in the Pleistocene until further data can be obtained. Mr. W. B. Marshall has stated Pliocene for the material to be described by him, but Mr. Herman Gunter, State Geologist of Florida, has written to me that during the dredging of the canals both Pleistocene and Pliocene species were encountered and it is possible that this collection of mollusks from West Palm Beach might contain such a mixture.

**Physa barberi**, new species<sup>2</sup>

Shell sinistral, imperforate or very nearly so, rather large, heavy; whorls  $5\frac{1}{2}$  to 6, body whorl greatly enlarged, one half again as long as wide; spire acute, produced; aperture elongate, palatal border somewhat straight, base flaring; palatal lip labiate just within the margin; columella lip consisting of a rather heavy deposit on the body whorl; columella heavy, broad, slightly twisted, nearly straight; sutures very well impressed, whorls not shingled as in *ancillaria*; sculpture composed of fine cross-striae, evenly spaced growth lines, and longitudinal, rather narrow and prominent ribs.

	Measurements				
	L.	W.	Ap. L.	Ap. W.	
Type .....	18.0	10.5	11.5	5.2 mm.	U. of M. Cat. No. 32540
Paratypes .....	18.3	10.5	13.4	5.8 mm.	U. of M. Cat. No. 32541
“	17.0	10.0	12.3	5.2 mm.	U. of M. Cat. No. 32541
“	16.0	9.3	11.6	4.4 mm.	U. of M. Cat. No. 32541
“	18.0	9.5	12.0	5.7 mm.	Clench. Cat. No. 2012
“	17.7	10.2	12.2	5.5 mm.	Clench. Cat. No. 2012
“	17.0	9.8	11.5	5.4 mm.	Clench. Cat. No. 2012

Type specimen: U. of M. Museum of Zoology, Cat. No. 32540; Canal embankment, West Palm Beach, Florida; M. D. Barber, collector.

Paratypes: U. of M. Museum of Zoology, Cat. No. 32541; additional paratypes in the Academy of Natural Sciences, Philadelphia; U. S. National Museum; in the collection of Dr. Bryant Walker; the State Geological Survey Department of Florida; and my own collection.

This species is marked by the development of the longitudinal ribs. These ribs are not as prominent as in *P. costata* Newc., as figured by Walker (1), though more numerous. In general form it resembles the recent species *P. pomilia* Conr., though *P. pomilia*, to my knowledge, does not have ribs as pro-

<sup>2</sup> This species is named in honor of Mr. M. D. Barber, who kindly sent me the specimens.

nounced as in *P. barberi*. It differs mainly from *P. pomilia* in having more deeply impressed sutures, a straighter and wider columella, and a larger and more solid shell. The columella lip is much thicker in *P. barberi*, though this character is usually associated with all thick, heavy Physas. The term "imperforate or nearly so" in the type description refers to the occasional formation of a very narrow rimation that appears in a few of the paratypes. This slight umbilical orifice is formed by the columella lip not adhering to the body whorl at its lowest portion.

*P. barberi* differs quite markedly from *P. meigsii* Dall(2), described from the Pliocene of the Caloosahatchee marls in southern Florida. *P. meigsii* is much larger, more longate in proportion to its width, has less impressed sutures, and lacks the cross striae. The ribs and composite growth lines are present in *P. meigsii*, however, though not quite so pronounced and not on all the specimens that I have examined. *P. meigsii* does not appear to be quite so heavy as *P. barberi*, and as a consequence the columella lip is not so thick. The spire of *P. meigsii* is more obtuse, though the proportion of height is about the same.

## REFERENCES

1. WALKER, B. A synopsis of the Classification of the Fresh Water Mollusca of North America, north of Mexico. University of Michigan, Museum of Zoology, Miscellaneous Publication No. 6, p. 16, 1918.
2. DALL, W. H. Tertiary Fauna of Florida. Trans. Wagner Free Institute of Science. Vol. III, Pt. I, p. 22, Pl. 10, fig. 12, 1890.

## PLATE I

- FIG. 1. *Physa barberi*, new species. U. of M. Cat. No. 32540. Type.
- FIG. 2. *Physa barberi*, new species. Clench. Cat. No. 2012. Paratype.
- FIG. 3. Diagrammatic figure of two ribs, from dorsal surface of body whorl on type.

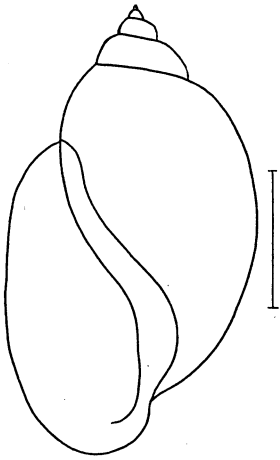


FIG. 1

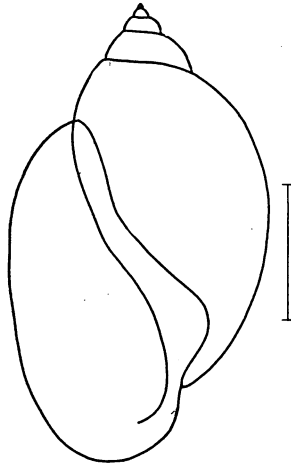
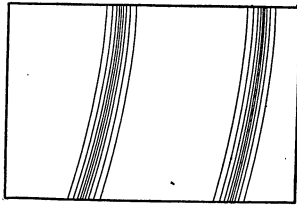


FIG. 2



2 MM

FIG. 3





