NOTES ON THE FAUNA OF THE CHIPOLA FORMATION–XXXIX A NEW SPECIES OF THE GENUS *PARAMETARIA* (GASTROPODA:COLUMBELLIDAE)

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Not a great deal appears to be known about the genus *Parametaria* Dall, 1916. According to Jung (1994, p. 16) this genus has never been studied in detail. Reeve (1859) was the first investigator to describe these cone-like gastropods in his monograph on the genus *Meta*. In his presentation he noted that the members of this genus possess external morphological features that are intermediate in character between Swainson's two genera *Strombоidea* and *Conella*. In a subsequent study of the American Columbellidae, Dall (1916, p. 25) noted that the generic name *Meta* is preoccupied and proposed that it be replaced with *Parametaria*.

To date, only seven species of *Parametaria* have been described from the fossil record. Two come from the Miocene deposits of the Dominican Republic. These include *P. lopezana* Jung (1994, p. 19, pl. 7, figs. 4-9) from the late early to early middle Miocene deposits of the Baitoa Formation and *P. islahispaniolae* (Maury, 1917, p. 94, pl. 15, figs. 4, 5) from the late Miocene deposits of the Cercado and Gurabo formations. An additional two species have been unearthed from the Pliocene deposits (Jung, 1994, p. 16) of the Springdale Formation in Trinidad. These species are *P. prototypus* (Guppy, 1867, p. 171) and *P. schideri* (Rutsch, 1942, p. 148, pl. 5, figs. 5a, 5b). Of the remaining three species, *P. hertweckorum* Petuch (1991, p. 37, pl. 6, figs. 1, 2) and *P. lindae* (1986, p. 406, pl. 3, figs. 9, 10) come from the Pliocene Pinecrest Beds of Florida and *P. rutschi* Jung (1969, p. 500, pl. 52, figs. 3-6) from the Pleistocene deposits (Jung, 1994, p. 16) of the Talparo Formation of Trinidad.

No living forms of *Parametaria* have been discovered off the coast of Florida nor have any been found in the Caribbean. However, there is one living representative of this genus, *P. dupontii* (Kiener, 1849), which survives in the eastern Pacific Panamic Province from the Gulf of California to Tres Marias Islands on the west coast of Mexico (Keen, 1971, p. 598), making the genus yet another Paciphile.

At no time during their short geologic history do the members of this genus appear to be abundant (Jung, 1994, p. 16). In addition, the distribution of this rare form appears to be limited to tropical and subtropical shallow patch-reef environments, a fact that is substantiated by recent discoveries of a new species of *Parametaria* from shallow back-reef facies of Chipola Formation deposits along Farley Creek.

Family COLUMBELLIADE Swainson, 1840

Genus PARAMETARIA Dall, 1916

Parametaria DALL, 1916, Nautilus, v. 30, no. 3, p. 25, new name for *Meta* Reeve, 1859, not Koch, 1835.

Type species: *Conus dupontii* Kiener, 1849, by original designation.

Subgenus PARAMETARIA s. s.

PARAMETARIA (PARAMETARIA) BELLA Schmelz, n. sp.

Text-figures 1, 2

Description: Shell small, conical in form. Protoconch glossy, about two whorls; postnuclear whorls six. First two postnuclear whorls smooth and small. At fourth postnuclear whorl apical angle increasing markedly and whorls become wider and shouldered. A well-developed suture between last three whorls and numerous, faint, slightly raised growth lines crossing shoulders of each whorl. Near aperture, posterior half of body whorl arching sharply towards apex, creating a narrow anal canal. On anterior half of body whorl, siphonal canal sculptured with fine spiral cords. Aperture wide at the base and narrow at posterior end. Inner lip with thin callus extending to base of columella, the lower part containing seven small pustules. Outer lip folded inward, on inner margin about nine to twelve well-developed denticles.

Holotype: USNM 484396; height 11.0 mm, maximum diameter 5.9 mm.

Type locality: TU 825, Chipola Formation, Farley Creek at abandoned mill about 1/4 mile west of bridge of Florida Highway 275 (SW 1/4 Sec. 21, T1N, R9W), Calhoun County, Florida.

Paratype: USNM 484397; height 10.9 mm, maximum diameter 5.9 mm; locality TU 825, Farley Creek, Calhoun County, Florida.

Additional unfigured paratypes: Sixteen specimens from TU 825 (14 from the Tulane collection and two from the Schmelz collection); three specimens from TU 999 (two from the Tulane collection and one from the Schmelz collection);

three specimens from TU 819 (Schmelz collection) and one specimen from TU 1048 (Schmelz collection).

Discussion: Parametaria bella is the oldest member of this genus reported in North America and is comparable in age to *P. lopezana* Jung (1994, p. 16, pl. 7, figs. 4-9), which was described from the early and middle Miocene deposits of the Baitoa Formation, Dominican Republic. Its general shell morphology is most like *P. prototypus* (Guppy, 1867, p. 171) from the Pliocene Springdale Formation deposits in Trinidad. Similar to *P. prototypus*, *Parametaria bella* possesses a glossy protoconch of about two whorls followed by six teleconch whorls. In both species the apical angle increases markedly at the fourth postnuclear whorl, at which point the whorls become wider and more shouldered. *Parametaria bella* differs from its Trinidad counterpart in that it is a shorter and more slender shell (11.0 x 5.9 mm *vs.* 12.2 x 7.8 mm), and the apical angle of the spire formed by the expanded four teleconch whorls is less acute. *Parametaria bella* is probably the ancestor of *P. hertweckorum* Petuch (1991, p. 37, pl. 6, figs. 1, 2), which is fairly abundant in the Pliocene Pinecrest beds of Florida.

ACKNOWLEDGMENTS

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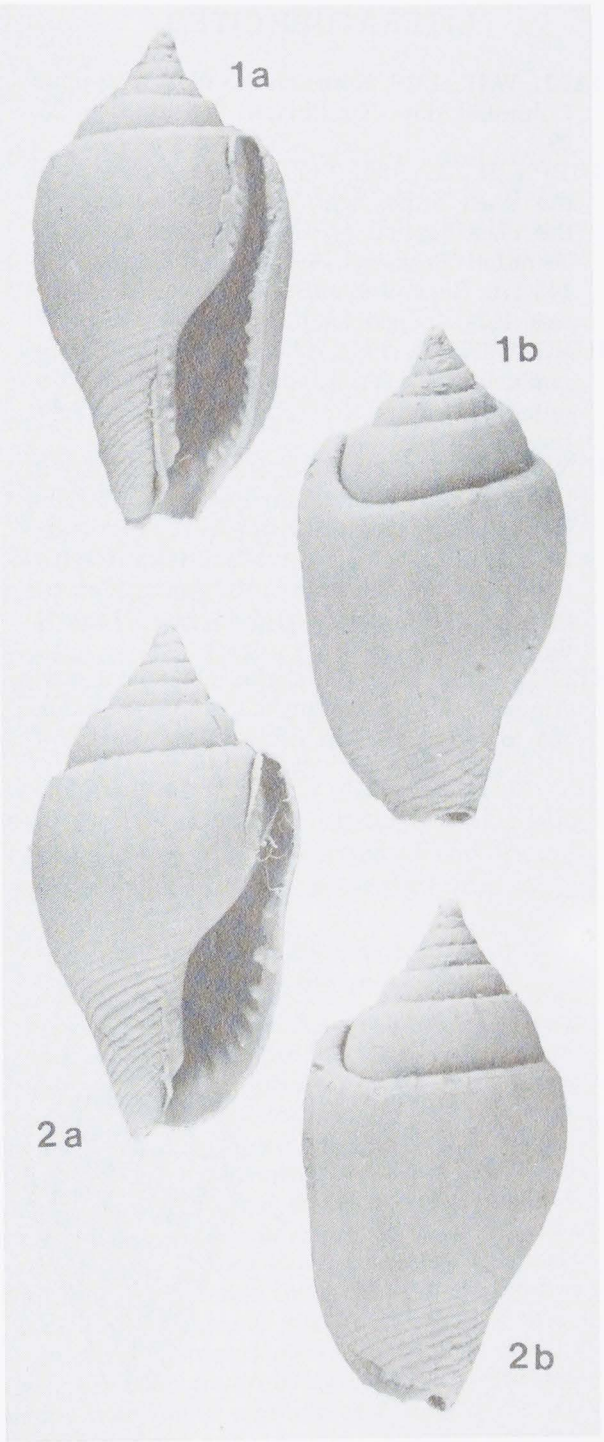
LOCALITY DATA

The following Tulane University localities are all in the Chipola Formation, Calhoun County, Florida:

819. Farley Creek, 0.2 mile west of bridge of Florida Highway 275 (SW 1/4 Sec. 21, T1N, R9W).
825. Farley Creek at abandoned mill about 1/4 mile west of bridge of Florida Highway 275 (SW 1/4 Sec. 21, T1N, R9W).
999. Farley Creek, about 300 yards downstream from bridge of Florida Highway 275 (SW 1/4 Sec. 21, T1N, R9W).
1048. Farley Creek, south bank, about 0.8 mile east of bridge of Florida Highway 275 (NE 1/4 Sec. 21, T1N, R9W).



Text-figures 1, 2. *Parametaria (Parametaria) bella* Schmelz, n. sp. (X5). 1, USNM 484396 (holotype); height 11.0 mm, diameter 5.9 mm; locality TU 825, Chipola Formation, Florida. 2. USNM 484397 (paratype); height 10.9 mm, diameter 5.9 mm; locality TU 825, Chipola Formation, Florida.

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