A NEW SPECIES OF *ENDOPACHYS* (ANTHOZOA: SCLERACTINIA) FROM THE MIOCENE OF FLORIDA

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The genus *Endopachys* includes several species of Cenozoic and Recent solitary ahermatypic tropical corals characterized by their free, compressed cuneiform coralla, porous dendrophylliid structures, and septal insertion following the Pourtalès plan. The type species is *E. maclurii* (Lea) from the middle and upper Eocene of the Gulf Coastal Plain (Figs. 4,5). Other species from the same terrain were described by Vaughan (1900) as *E. lonsdalei, E. shaleri,* and *E. minuta.* None are yet known from the later American Cenozoic with the exception of the subject of the present note, and the genus is extinct in America. However, it is still wide-spread in the Indo-Pacific on sandy or mud bottoms in depths of 40 to 350 meters with the species *E. grayi* Milne-Edwards & Haime, 1848, which includes, according to Umbgrove (1950): *E. japonicum* Yabe & Eguchi, *E. oahense* Vaughan, and *E. vaughani* Durham—Recent of the Persian Gulf, Indonesia, Philippines, Japan, Hawaii, Gulf of California; and Neogene of Java, Philippines, Taiwan, Japan. *E. grayi* lacks the distinctive paracostal ridges of the American forms, to which it can only be distantly related.

Order SCLERACTINIA
Suborder DENDROPHYLLIINA
Family DENDROPHYLLIIDAE
Genus ENDOPACHYS Lonsdale, 1845

Type species: E. alatum Lonsdale, 1845, = *Turbinolia maclurii* Lea, 1833. Eocene, Alabama.

ENDOPACHYS TAMPAE Wells, n.sp.
Plate 1, figs. 1–3, 6

Description: Large for the genus, flabelliform, strongly compressed with plane sides and auricular expansions in the longer axis extending below the initial base of the corallum similar to those of *Diploctenium* and some species of *Flabellum.* Calice elongate, bending down steeply at ends, narrow and shallow. From each point of downturning of the calice there extend two thick, rounded paracostal ridges inclined toward and diminishing towards the base. Corallite wall thin, perforate, externally uniformly covered by low, fine, cylindrical or compressed echinulations (Fig. 6). Septa laminar, laterally minutely spinulose. In the holotype there are about 60 larger and 180 smaller septa, the larger numbering about 6 in 10 mm with three shorter ones between each pair of larger. Columella trabecular, narrow.

Dimensions	Holotype	Paratype
Width	53 mm	60 mm +
Height	41 mm	45 mm
Calice width centrally	7 mm	
Calice width laterally	9 mm	
Calice length along curve	95 mm	
Paracostae, max. height	6 mm	8mm

Holotype: USNM 174388 (Figs. 1, 3, 6)
Paratype: USNM 174389 (Fig. 2)

Type locality: Ballast Point, Hillsborough Bay, Hillsborough County, Florida.

Occurrence: Lower Miocene, "Silex Bed" near top of the Tampa Limestone (Cooke, 1945, p. 125) = St. Marks facies of the Tampa Stage (Puri & Vernon, 1959, p. 111).

Remarks: This curious dendrophyllid was recognized many years ago by T. Wayland Vaughan and described by him in an unpublished manuscript on the later Tertiary corals of the United States and the West Indies. In 1915 (p. 18) he furnished W. H. Dall a list of his manuscript names of the species of the Tampa corals, one of which was *"Endopachys tampae,"* a nude name, and later (1919, p. 211) he listed this coral only as *Endopachys.*

The few known specimens are wholly silicified and some calicular details such as the septal plan are obscured. The only complete corallum is the holotype. The paratype is half of a slightly larger individual. There are also several fragments (USNM 174390) of the swollen, nearly solid, resistant lower tips of the alate expansions. The large, strongly compressed corallum with very elongate calice, auricular expansions, and stout paracostae extending downward from the calice margin,

distinguish *E. tampae* from *E. maclurii* (Figs. 4, 5) and related species of the Coastal Plain Eocene.

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PLATE 1

Figs. 1, 3, 6. *Endopachys tampae,* n. sp. Holotype, USNM 174388; Figs. 1, 3, lateral and calicular aspects, X 1½. Fig. 6, lateral surface, X 10.

Fig. 2. *Endopachys tampae* n. sp. Paratype, USNM 171389. Left lateral aspect of an imcomplete specimen, X 1½.

Figs. 4, 5 *Endopachys maclurii* (Lea). Calicular and lateral aspects of typical specimens.

Fig. 4. USNM 647320; TU 923, Newton, Newton Co., Mississippi; middle Eocene (Claibornian), X 2.

Fig. 5. USNM 647321; TU 306, Little Stave Creek, Clark Co., Alabama; middle Eocene (Claibornian) , X 2.

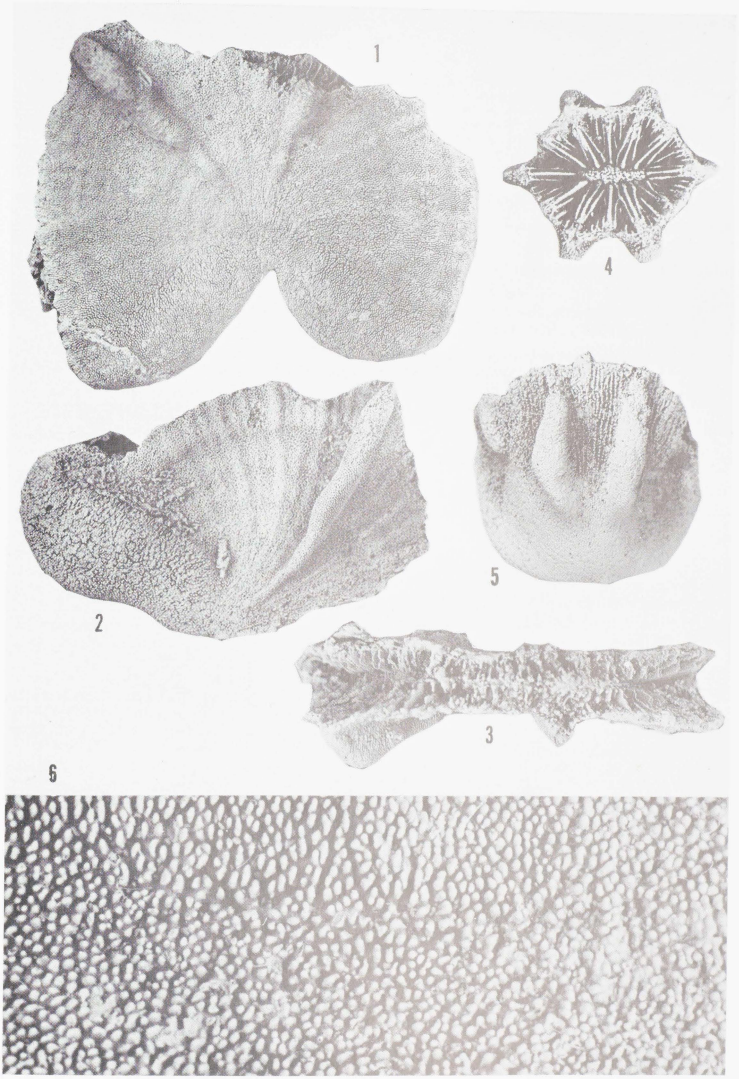

PLATE 1