

- SMITH, BURNETT, 1929, Young stages of *Conus adversarius* Conrad: Acad. Nat. Sci. Phila., Proc., v. 81, p. 659-663, 2 text figs.
- TOMLIN, J. R. le B., 1937, Catalogue of Recent and Fossil Cones: Malac. Soc. London, Proc., v. 22, p. 205-236 (March), p. 237-322 (July).
- VAN MOL, J. J., B. TURSCH, and M. KEMPF, 1967, Résultats Scientifiques des Campagnes de la "Calypso", fasc. 8: Masson et Cie, Editeurs, Paris, p. 233-254, pls. 1-10, 17 text figs.

- VOKES, H. E. and E. H. VOKES, 1968, Variation in the Genus *Orthaulax* (Mollusca: Gastropoda): Tulane Stud. Geol., v. 6, no. 2, p. 71-79, pls. 1-3.
- VON LINDEN, GRÄFIN MARIA, 1896, Die Entwicklung der Skulptur und der Zeichnung bei den Gehäuseschnecken des Meeres: Zeitschr. f. Wissenschaftliche Zoologie, v. 61, p. 261-317, pls. 11.

ADDENDUM

A NEW SPECIES OF CONUS FROM THE CHIPOLA FORMATION

SHIRLEY E. HOERLE*
WEST PALM BEACH, FLORIDA

While the preceding paper was in press another species of Chipola *Conus* was brought to light by the writer's husband. Although the specimen is unique and bears a slight damage anteriorly, its morphological characteristics are so distinct from any other Chipola *Conus* the writer feels it essential to note its occurrence. The shell was collected along Ten Mile Creek, TU 951, in the basal beds of the Chipola Formation. A number of unusual and unexpected genera and species have appeared at this locality, one example being "*Ranella*" *poppelacki* Hörnes (see E. H. Vokes, 1974, p. 96).

CONUS SEXTONI S. E. Hoerle, n. sp.

Text fig. 1

Diagnosis: Shell low spired; slender; periphery about one-fourth distance in front of shoulder; tapering anteriorly with a suggestion of a slight twist to the left. Adult specimen consisting of two and one-half rounded nuclear whorls and seven teleoconch whorls. Sutures distinct, slightly impressed. Summits of early post-nuclear whorls flat, those of later whorls convex with an adaxial slope, forming a slight concavity in front of suture. Whorls ornamented by prominent, but not crowded, moderately arched growth lines. Anal notch shallow; outer lip nearly straight. Sculpture of last whorl consisting of broad, flat bands separated by narrow, incrementally striated grooves; growth lines prominent, giving the shell an axially roughened appearance.

Dimensions of holotype: height 19.0 mm (incomplete), diameter 9.2 mm.

Holotype: USNM 647645.

Type locality: TU 951, Ten Mile Creek, about 1¼ miles west of Chipola River (SE ¼ Sec. 12, T1N, R10W), Calhoun County, Florida.

Occurrence: Chipola Formation, Florida; late lower Miocene.

Figured specimen: USNM 647645. (holotype).

Discussion: *C. sextoni* is represented only by the type specimen and does not appear to



Text figure 1. *Conus sextoni* S. E. Hoerle, n. sp. Holotype, USNM 647645.

*Research Associate, Paleontological Research Institution, Ithaca, New York; Associate, Department of Earth Sciences, Tulane University.

be allied to any other *Conus* species from the Chipola Formation. It cannot definitely be stated at this time if the bands and narrow grooves, completely covering the final whorl, are a constant feature of this species as, generally, the extent of ornamentation of the last whorl is a variable factor, e.g., *C. chipolanus* Dall. The two and one-half whorl nucleus, the lack of ornamentation of the early whorls and the uniquely formed summits of the spire whorls easily differentiate this species from other *Conus* of the Alum Bluff Group. The only other fossil cone to which this new species bears a resemblance, and only superficially, is *C. cruzianus* Dall, 1890, from the Pliocene limestone of the "Island of Santa Cruz, West Indies" [St. Croix, U.S. Virgin Islands]. The one feature *C. sextoni* and *C. cruzianus* have in common is a slight channel in front of the suture. The ornamentation on the last whorl of *C. cruzianus* consists of rounded, finely

striated cords, the posterior ones medially sulcated, as contrasted to the bands and grooves of *C. sextoni*.

A Recent Caribbean species, *C. granulatus* Linné, 1758, has the final whorl sculpture similar to *C. sextoni* but the spire characteristics are entirely different. Treatment failed to reveal any color pattern and so it must be assumed that in life the shell was unpatterned, unlike *C. granulatus*, which has strong shoulder markings.

This shell is named in honor of Mr. Cecil Sexton, Altha, Florida, who has generously permitted workers to collect at TU 951, which is located on his property.

LITERATURE CITED

- VOKES, E. H., 1974, Notes on the fauna of the Chipola Formation — XV. On the occurrence of "*Ranella*" *poppelacki* Hörnes, a gastropod of uncertain affinities: Tulane Stud. Geol. Paleont., v. 11, no 2, p. 96-98, text fig. 1, 2.

REVIEWS

GEOGRAPHICAL VARIATIONS IN COASTAL DEVELOPMENT, by J. L. Davies. Published by Hafner Publishing Company, New York, 1973, viii + 204 pp., 130 figs.

This is an investigation of how the morphological development of coastal areas varies from one part of the world to another which attempts to isolate the factors causing such variations. An attempt is made to recognize broad patterns in coastal processes on a global scale. The claim is made that climate is a major factor which modifies the effects of geological structure and the influence of lithology. Three broad latitudinal zones are recognized from which conceptual models of shoreline evolution can be generated, low-latitude, mid-latitude, and high-latitude. The differing characteristics of each are enumerated.

DEPOSITIONAL SEDIMENTARY ENVIRONMENTS, by Hans-Erich Reineck and Indra Bir Singh. Published by Springer-Verlag, New York, Heidelberg, and Berlin, 1973, xvi + 439 pp., 579 figs., \$41.60

This volume is intended as a compilation of the information needed to reconstruct ancient depositional environments. Though it is not a textbook on sedimentology and does not include methods of study, it is a comprehensive review of those sedimentary features considered by the authors to be significant and useful in environmental interpretation. The book is profusely illustrated. It is well and clearly written and deserves a place on the shelf of every active geologist.

—H.C.S.