A NEW HOLOCENE SPECIES OF *ECHINOCYTHEREIS* (OSTRACODA)

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I. Introduction

Several washed bottom samples, with an abundant ostracode fauna, were obtained from the Louisiana Continental Shelf southwest of the Mississippi River Delta. The samples were given to the writer for the purpose of studying the ostracode assemblages. A new species of the genus *Echinocythereis* Puri, 1953, was found and is described in this paper.

The genus *Echinocythereis* has been reported throughout most of the Cenozoic of the world and in Holocene sediments. Living specimens have been found only in marine waters and usually on the outer continental shelf or at greater depths (Puri, 1953; Van Morkhoven, 1963). The specimens in this study were recovered from water depths of 136 to 150 feet.

It was not possible to analyze the nature of the sediments because the samples were washed prior to their examination. Carsey (1950) indicated that the sediments in the area were a mixture of sand and mud.

II. Acknowledgments

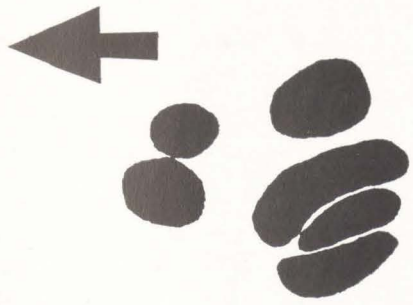
The writer wishes to thank Dr. Hubert C. Skinner, Department of Geology, Tulane University, who obtained the washed samples and made them available for this study. Dr. Ronald L. Parsley, of the same department, offered many useful suggestions concerned with the photographic techniques employed.

III. Methods

The washed samples were dry-sieved and all material of 100 mesh (0.149 mm) or larger was examined for ostracode specimens. Juvenile and adult valves and fragments were retained for study.

Photographs were taken with a Wild M-5 microscope, Wild phototube, and an attached 35mm Nikon F camera. Photographed specimens were coated with silver nitrate or stained with ink by procedures as summarized by Sohn (1961).

Type specimens are deposited in the Henry V. Howe Collection, Louisiana State University.



Text figure 1. Central muscle scars, right valve (× 175).

IV. Systematic Descriptions

Subclass Ostracoda Latreille, 1802
Order Podocopida Sars, 1865
Suborder Podocopina Sars, 1865
Superfamily Cytheracea Baird, 1850
Family Trachyleberididae
Sylvester-Bradley, 1948
Subfamily Echinocythereidinae
Hazel, 1967

Genus Echinocythereis Puri, 1953
Echinocythereis spinireticulata
Kontrovitz, n. sp.
Plate 1, Figures 1-3

Holotype: HVH 8595, left valve, female, length .95 mm; height .64 mm.

Paratypes: HVH 8596 (figured specimen), left valve, male, length .96 mm; height .61 mm.

HVH 8597 (figured specimen), female, right valve, length .99 mm; height .63 mm.

HVH 8598, male, right valve, length .99 mm; height .59 mm.

HVH 8599, juvenile, right valve, length .83 mm; height .53 mm.

Description: Subovate in lateral view, heavily calcified, large. Dorsal margin sinuous with a slight concavity behind eye tubercle, slight convexity at mid-length. Ventral margin with slight concavity just in front of mid-length, broadly convex behind mid-length. Anterior margin broadly rounded and denticulate below, acutely rounded and smooth from just above mid-height to eye tubercle. Posterior margin evenly rounded from venter to a point just above mid-height, acutely rounded above to posterior cardinal angle. Greatest length above mid-height.

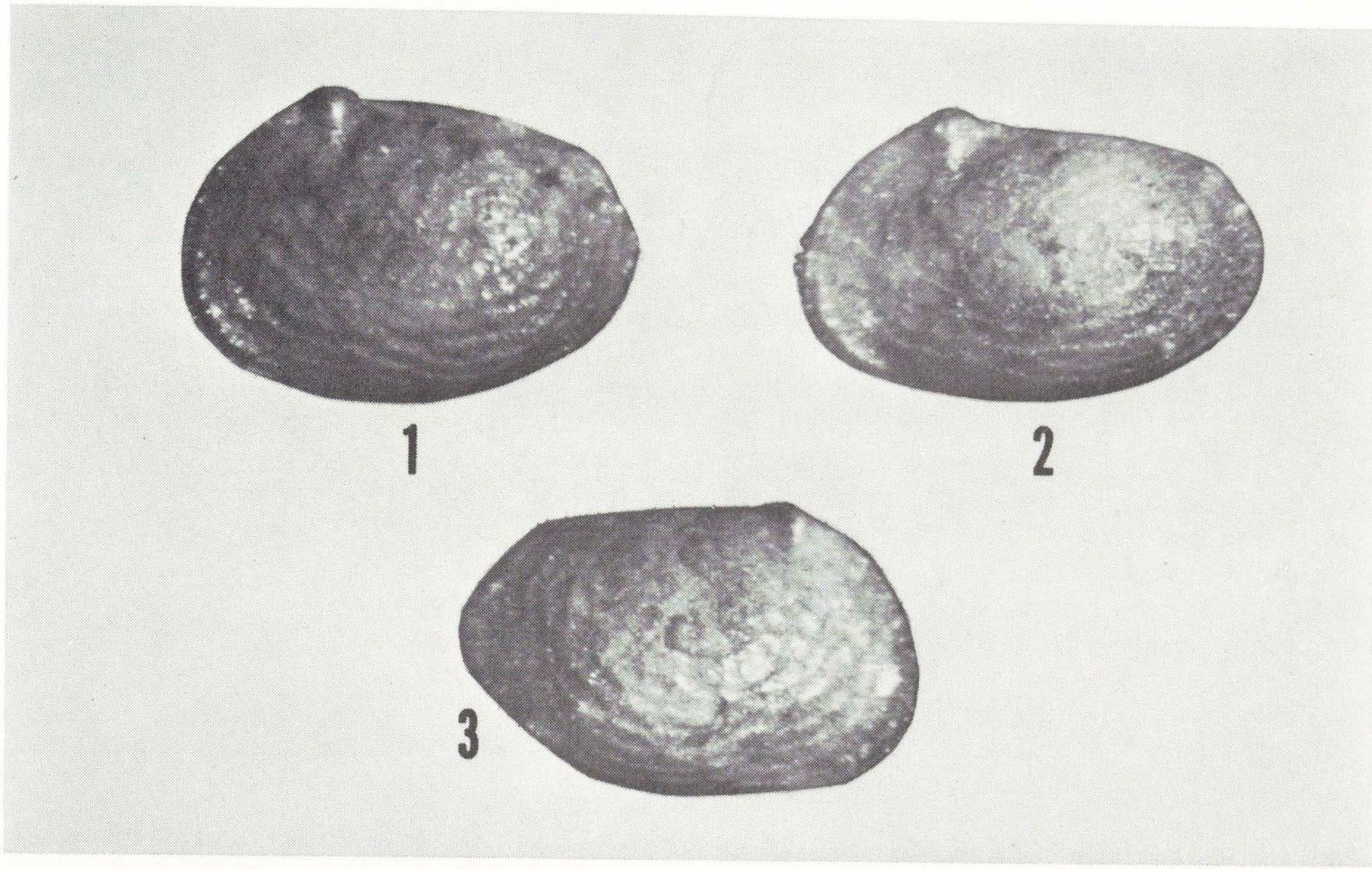


PLATE 1
Echinocythereis spinireticulata Kontrovitz, n. sp.

Figures
1. Holotype, HVH 8595
   Left valve, female; length .95 mm; height .64 mm (× 47).
2. Paratype, HVH 8596
   Left valve, male; length .96 mm; height .61 mm (× 47).
3. Paratype, HVH 8597
   Right valve, female; length .99 mm; height .63 mm (× 47).

Surface: Faintly reticulate, anterior, posterior, and ventral reticulations composed of minute, delicate spines. Central area with low faint reticulations composed of continuous ridges. Reticulations are elongate near margins and more equidimensional near center. Ornamentation centered about dorsomedial area of carapace and nearly concentric with anterior, posterior, and ventral margins. In poorly preserved specimens the minute spines are seen only as remnants and the rows are discontinuous. Juveniles are smooth at the central region but small spines are visible on the marginal areas. Adults have a row of slender spines immediately behind the denticulate anterior margin. Well preserved individuals have a long heavy spine projecting from the posterior ventrolateral convexity of the valve.

Dimorphism: Males appear to be longer because they are lower at the posterior cardinal angle.

Interior: Valves deep. Hinge, right valve, anterior tooth is high and pointed, followed by a deep elongate socket that merges with a smooth median groove. The median groove curves downward in front of posterior tooth. Posterior tooth is high, elongate, and follows the curve of the valve at the posterior cardinal angle. There is a faint appearance of lobation of the posterior tooth of some specimens but this may be due to poor preservation of those individuals. Hinge of left valve complementary with a deep anterior socket, low tooth that is part of a smooth median bar, and a deep curved posterior socket.

Inner lamella is moderately wide, widest at anterior, narrowest at venter, narrow but

distinct at posterior. Line of concrescence seems to be slightly removed from inner margin anteriorly and posteriorly. Selvage of right valve is prominent, removed from outer margin and flexed strongly upward just in front of mid-length at venter. There is a distinct groove outside of the selvage in the right valve. Selvage of the left valve is less distinct and close to the outer margin, corresponding to the groove of the right valve.

Radial pore canals difficult to observe because of the opaqueness of the valves. They seem to be simple and straight except at the upper anterior margin where they are slightly curved and may be false.

Central muscle scars, a vertical row of four; the top scar is suboval, next lower is subreniform, third from top is elongate as is the bottom scar. Second and fourth from top touch or nearly touch in front of second. Two frontal scars are subcircular.

Dimensions: Female right valves, length .97-1.00 mm; height .60-.64 mm; female left valves, length .96-.98 mm; height .63-.64 mm; male right valves, length 1.00-1.02 mm; height .59 mm; male left valves, length .96-1.04 mm; height .60-.63 mm.

Material: Forty-eight specimens, including 22 adult valves.

Remarks: The name of the species refers to the netlike ornamentation of spines; spini = thorny, reticulata = net. Eroded specimens do not retain the delicate spines but display the faint reticulation only.

This species differs from *E. jacksonensis* (Howe and Pyeatt, 1935) in being reticulate over the entire surface and having a higher posterior therefore appearing to be shorter. The original description of *E. jacksonensis* includes two forms, one larger than the other. The larger has anterior reticulations and only coarse spines from mid-length to the posterior. Krutak (1961) figured examples of *E. jacksonensis* with "tiny nodes which are aligned, tending to form hexagonal, pentameral, or angular patterns." The specimens he reported differ from *E. spinireticulata*, n. sp., in being smooth in the dorsal, posterior, and ventral areas. Muscle scars and length/height ratios are significantly different. (See text figure.)

E. clarkana (Ulrich and Bassler, 1904) is easily distinguished from this species by its coarsely reticulate surface with heavy spines at the juncture of the ridges, denticulate posterior margin, and larger size.

V. References Cited

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RECENT BOOK

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