TWO NEW GASTROPOD OCCURRENCES IN THE ECUADORIAN NEOGENE

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During the month of February, 1980, while making a collection of fossils at Quebrada Camarones, Esmeraldas Province, Ecuador (Olsson, 1964, p. 14), William and Lois Pitt discovered two species of Gastropoda that have not previously been reported in the Ecuadorian Neogene.

The Quebrada Camarones locality is a steep cliff along a small stream that empties into the Pacific Ocean about 10 km east of the Esmeraldas River and about 1.5 km inland from the mouth of the stream. Most of the specimens collected were from blocks that had fallen from the upper part of the cliff. The fossils occur in a brown semiconsolidated, highly foraminiferous, pebbly, glauconitic, mudstone matrix.

The geological position of the Quebrada Camarones locality is somewhat in doubt at this time as it is assigned to the Mio-Pliocene Esmeraldas Formation (Olsson, 1964, p. 12) and basel middle-Miocene (N9) Angostura Formation (Bristow, 1976, pp. 193, 196).

The intent of this paper is solely to report the two noteworthy occurrences in the Ecuadorian Neogene and not to evaluate the geological position of the locality. It is felt, however, that with larger and stratigraphic collections from Quebrada Camarones it may be found that there are several horizons and more than one formation occurring there. Recent studies of planktic foraminifera seem to indicate a probable lower Pliocene age for this area.

HARPA AMERICANA Pilsbry, 1922
Text fig. 1

Harpa rosea Lamarck. GABB, 1873, Amer. Phil. Soc., Trans., v. 15, p. 214. (Not *H. rosea* Lamarck, 1816.)

Harpa americana PILSBRY, 1922, Acad. Nat. Sci. Phila., Proc., v. 73, p. 337, pl. 23, fig. 13.

Harpa americana Pilsbry. PERRILLIAT MONTOYA, 1960, Paleontologia Mexicana, no. 8, p. 24, pl. 3, figs. 18-19.

Harpa americana Pilsbry. REHDER, 1973, Indo-Pacific Mollusca, v. 3, no. 16, p. 257-8, pl. 228.

Previous Distribution: This species had only been reported from the Caribbean region prior to this report, Dominican Republic and Veracruz, Mexico. All of these previous reports indicated a geological age of middle Miocene for this species. Recent studies in these areas would seem to indicate a probable lower Pliocene age for this species at these localities.

New Record: A single specimen from the Quebrada Camarones extends the range of this species into the Pacific Region.

CIRSOTREMA TOGATUM
(Hertlein and Strong, 1951)
Text figs. 2,3

Epitonium (Cirsotrema) togatum HERTLEIN and STRONG, 1951, Zoologica, v. 36, p. 89, pl. 3, figs. 1, 5.

Epitonium (Cirsotrema) togatum Hertlein and Strong. KEEN, 1958, Sea Shells Tropical West America, p. 272, fig. 103.

Epitonium togatum Hertlein and Strong. DUSHANE and POORMAN, 1967, Veliger, v. 9, no. 4, p. 424.

Epitonium (Cirsotrema) togatum Hertlein and Strong. OLSSON, 1971, Bull. Marine Science, v. 21, no. 1, p. 89, fig. 77.

Epitonium (Cirsotrema) togatum Hertlein and Strong. KEEN, 1971, Sea Shells Tropical West America, ed. 2, p. 428, fig. 633.

Cirsotrema togatum (Hertlein and Strong). DUSHANE, 1974, Veliger, v. 16 supplement, p. 47-8, figs. 54-5.

Discussion: It is worthy to note here that Hertlein and Strong, (1951, p. 89), in the original description, state that the spiral sculpture consists of seven cords in the interspaces between the axial ribs and numerous fine striae. The Quebrada Camarones specimen has only six cords in the interspaces; however, the paratype, (CAS 9621) also has only six cords in the interspaces.

Previous Distribution: Recent, Guaymas, Sonora, Mexico and south to the Galápagos Islands, Ecuador. Dredged from mud, sand, shell or gravel substrate. Bathymetric range: 32 to 113 m.

New Record: A single specimen from Quebrada Camarones places this species into the fossil record for the first time. It has previously been reported only in the Recent (DuShane, 1974, p. 48).

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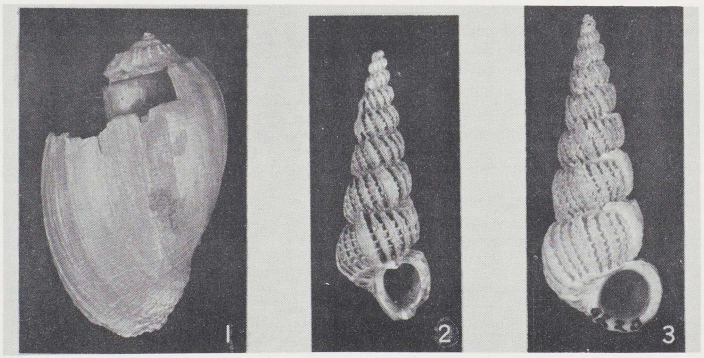

Text figure 1. *Harpa americana* Pilsbry
Height 51.7 mm, diameter 34.9 mm.
Locality: Quebrada Camarones.

Text figures 2-3. *Cirsotema togatum* (Hertlein and Strong)
2. Height 19.5 mm, diameter 7.0 mm.
Locality: Quebrada Camarones.
3. CAS 9620 (holotype); height 37.5 mm, diameter 13.8 mm.
Locality: Station 150-D-19, Lat. 23°01′00″ N. Long. 109°27′30″ W., Gorda Banks, Gulf of California, Mexico, dredged in 50 fathoms (91 meters), sand.