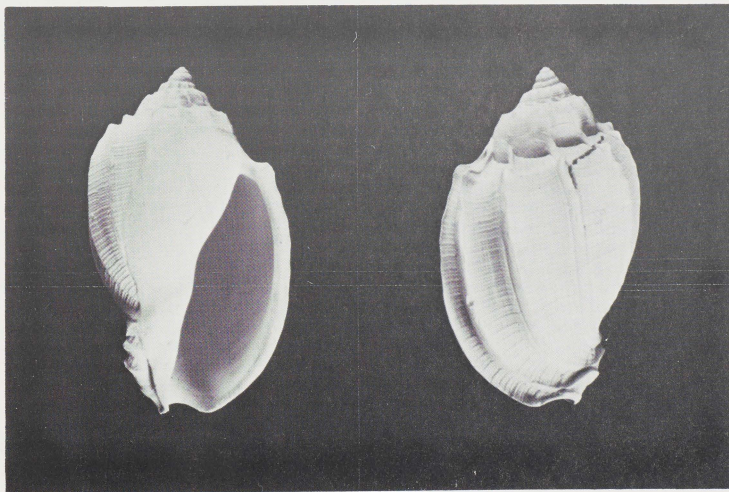


THE GENUS *HARPA* LAMARCK (MOLLUSCA: GASTROPODA)
IN NORTHERN SOUTH AMERICA

J. GIBSON-SMITH and W. GIBSON-SMITH
ESCUELA DE GEOLOGIA, MINAS Y GEOFISICA, UNIVERSIDAD CENTRAL DE VENEZUELA
CARACAS, VENEZUELA

In a recent number of this journal the occurrence of *Harpa americana* Pilsbry, 1922, in the Quebrada Camarones section of northwest Ecuador, was divulged by Pitt (1981, p. 155). It was noted that this extended the range of this taxon into the Pacific Region, previous reportings being from the Mio-Pliocene of the Caribbean only: from the Dominican Republic (type locality) by Gabb (1873, p. 214) as *H. rosea* Lamarck, 1816 (*non* Lamarck) being re-named later by Pilsbry (1922, p. 337), and from Veracruz, Mexico, by Perrilliat Montoya (1960, p. 24). Not mentioned, however, was the reporting by Gibson-Smith and Gibson-Smith (1979, p. 22) of the presence of *H. sp. cf. americana* in the early Miocene (Burdigalian) Cantaure Formation of the Paraguaná Peninsula, Venezuela (Figs. 1-3).

Whilst very similar to *H. americana*, the four Cantaure specimens suggest minor differences. The latter form has a slightly inclined protoconch of $3\frac{1}{2}$ to $3\frac{3}{4}$ whorls, with a total of seven to eight whorls at shell heights between 32.8 and 41.0 mm with corresponding diameters between 19.7 and 26.8 mm, the average H/D being 1.64. *Harpa americana* has a three whorl protoconch and only six whorls at a height of 41.0 mm. It should be noted that the dimensions of the holotype given by Pilsbry (1922, p. 337, pl. 23, fig. 13) are: height 33.3 mm, diameter 28.6 mm, H/D being 1.16; they are clearly in error. The figure is drawn to natural size and measures height 41 mm, diameter 24 mm, H/D being a more reasonable 1.7. Hence, part of our hesitation in assigning the Venezuelan material unequivocally to *H. americana*. Another consideration concerned the prov-



Text figures 1,2. *Harpa myrmia* Olsson
Height 32.8 mm, diameter 19.7 mm.
Locality: Cantaure Formation, Paraguaná Peninsula, Venezuela.

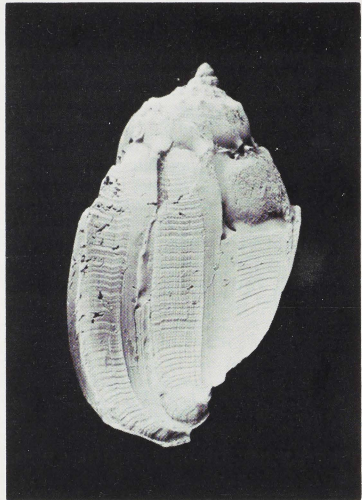
enance of the two forms: *H. americana* pertains to the West Indian and Mexican subprovince(s) of the Caribbean Miocene whereas the Venezuelan form comes from the northern South American subprovince. These subprovinces, based on endemic genera and subgenera, were defined by Woodring (1974, p. 209) and have been recognized more recently by several authors as persisting to the present day. The possibility, therefore, that two lineages exist could not be ignored.

The ancestor of the Ecuadorian and Venezuelan form(s) is *H. myrmia* Olsson, 1931, from the Oligocene Chira Formation of Peru, a form which the author did not differentiate from *H. americana*. Either this was due to an oversight, which is unlikely, or, perhaps, the heavy ribs of the last half-turn of the body-whorl, not reported as present in *H. americana*, were considered distinction enough without further comment or, maybe, the misquoted dimensions played a part. The heavy ribs, however, are a gerontic feature, the thin ribs of the spire whorls and the first half of the body-whorl become true, broad varices on the later part of the body-whorl. The same feature occurs in the largest Cantaure specimen where there are two, broad varices prior to the present lip.

Until further evidence is available regarding the relationship between *H. myrmia* and *H. americana*, the Cantaure form is here reassigned to *H. myrmia* as being the more logical assignment, a reassignment that might well apply to the Esmeraldas form, should it not merit identification as a new taxon. Only one difference has been noted: in the Cantaure form there are 13 ribs on the spire whorls, reducing to 11 on the body-whorl, whereas *H. myrmia* has only 9 ribs on the body-whorl, but this may not be diagnostic.

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Text figure 3. *Harpa myrmia* Olsson
Height 41.0 mm, diameter 26.8 mm.
Locality: Cantaure Formation, Paraguaná Peninsula, Venezuela.

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