



## A second species of the genus *Plagyostila* (Prosobranchia, Rissooidea) in Senegal, West Africa

### Una segunda especie del género *Plagyostila* (Prosobranchia, Rissooidea) en Senegal, Africa Occidental

Emilio ROLÁN\* and Jacques PELORCE\*\*

*Recibido el 10-IV-2002. Aceptado el 30-V-2002*

#### ABSTRACT

The second species of the genus *Plagyostila* is described. It was found in Dakar, Senegal. Comparison of the shell characters of the new species with those of the type species *P. asturiana* are made.

#### RESUMEN

Se describe la segunda especie del género *Plagyostila* descubierta en Dakar, Senegal y se comparan los caracteres de la concha de esta nueva especie con los de la especie tipo *P. asturiana*.

KEY WORDS: Rissooidea, *Plagyostila*, new species, West Africa.

PALABRAS CLAVE: *Rissooidea*, *Plagyostila*, new species, West Africa.

#### INTRODUCTION

*Plagyostila asturiana* Fischer in de Folin and Périer, 1872 is the only species known up to now for this genus. GOFAS AND PONDER (1991) reviewed this species, the habitat, the distribution range and commented on some anatomical details, showing operculum, radula and protoconch. Its range is known from France (PONDER, 1988), northern Spain (Gijón is the type locality) and north-west Spain (Vigo, in ROLÁN, 1983) to west and

north of Morocco (GOFAS AND PONDER, 1991), and Mediterranean (PALLARY, 1920) with an isolated citation in the Cape Verde Islands (BURNAY, 1989).

In the sediment material collected by the junior author in Dakar, Senegal, several shells with a profile similar of that of *P. asturiana* were found, but being different in many characters. These shells appear to belong to an unknown species and is presented in this work and described as new.

#### RESULTS

##### *Plagyostila senegalensis* spec. nov. (Figs. 1-3)

**Type material:** Holotype (Fig. 1) in MNHN; one paratype (Figs. 2-3) from Gouye Teni M'Both, 25 m, Dakar, Senegal (MNHN); other paratype from Le Tacoma, 15 m, Dakar, Senegal (coll. J. Pelorce);

\* Cánovas del Castillo, 22, 36202 Vigo, Spain.

\*\* 289 Voie Les Magnolias, 30240 Le Grau du Roi, France.

one paratype (juvenile) from Le Tacoma, 15 m (MNCN); one paratype from Madeleines, 6-14 m, Dakar, Senegal (coll. E. Rolán).

**Other material studied:** Senegal: 1 juvenile, Le Tacoma, 15 m (CER).

**Type locality:** M'Bao, 8.5 m, Dakar, Senegal.

**Etymology:** The specific name is derived of the country where the species was found.

**Description:** Shell (Fig. 1) ovate-conic, solid, cream in colour, with an irregular surface, not shining, somewhat flattened dorsoventrally. Protoconch (Figs. 2, 3) of  $2\frac{1}{4}$  whorls, which present a sculpture of small tubercles on the apical part of the whorls, while there are numerous spiral irregular lines in the abapical part. Teleoconch with about  $2\frac{1}{2}$  whorls, the first one with four spiral cords crossed by orthocline axial ribs, narrower than the intervals, and in number of about 17; in the last whorl, the axial ribs are absent, and the spiral cords are only evident in the subsutural area, almost disappeared in the convexity, and appear again on the abapical area, in a total number of about 12-13. Aperture piri-form with a simple outer lip and a columella thickened by a callus.

**Dimensions:** The holotype and the largest paratype are 2.0 mm high.

**Distribution:** The species was only found in the Dakar area.

**Discussion:** The generic assignment was based in the similarity of the present species with the type species of the genus, *P. asturiana*, in the outline, protoconch, and aperture. The presence of six shells with the same characters in several different places of Dakar, confirm us that this is a species with a

characteristic morphology. If the habitat is similar to that known for *P. asturiana* (under rocks buried in sand in about 30 cm), it is supposed that it will be very difficult to find frequently material living from sediments.

The species can be differentiated from *P. asturiana* because this latter species is larger (2.3 – 3.0 mm in most of the material referred or examined), the color is milk-white, the external surface is smooth (Fig. 4) with only a subsutural depression, the shell is glossy, the protoconch has a small nucleus (Fig. 5) and the sculpture is reduce to some spiral lines in the lower middle of the whorl (see GOFAS AND PONDER, 1991, fig. 5). In opposition, *P. senegalensis* is cream in all the shells studied, the larger shell is 2.0 mm, with axial ribs on the first whorl of the teleoconch and few evident spiral cords in subsutural area and on the base. Furthermore, there are differences in the sculpture of the protoconch, numerous spiral lines in the lower part of the whorls and tubercles on the upper part in *P. senegalensis* and the diameter of its nucleus is larger.

The sculpture of first whorl of teleoconch is similar to some species of the genus *Alvania*, but no other character of this genus is present.

## ACKNOWLEDGEMENTS

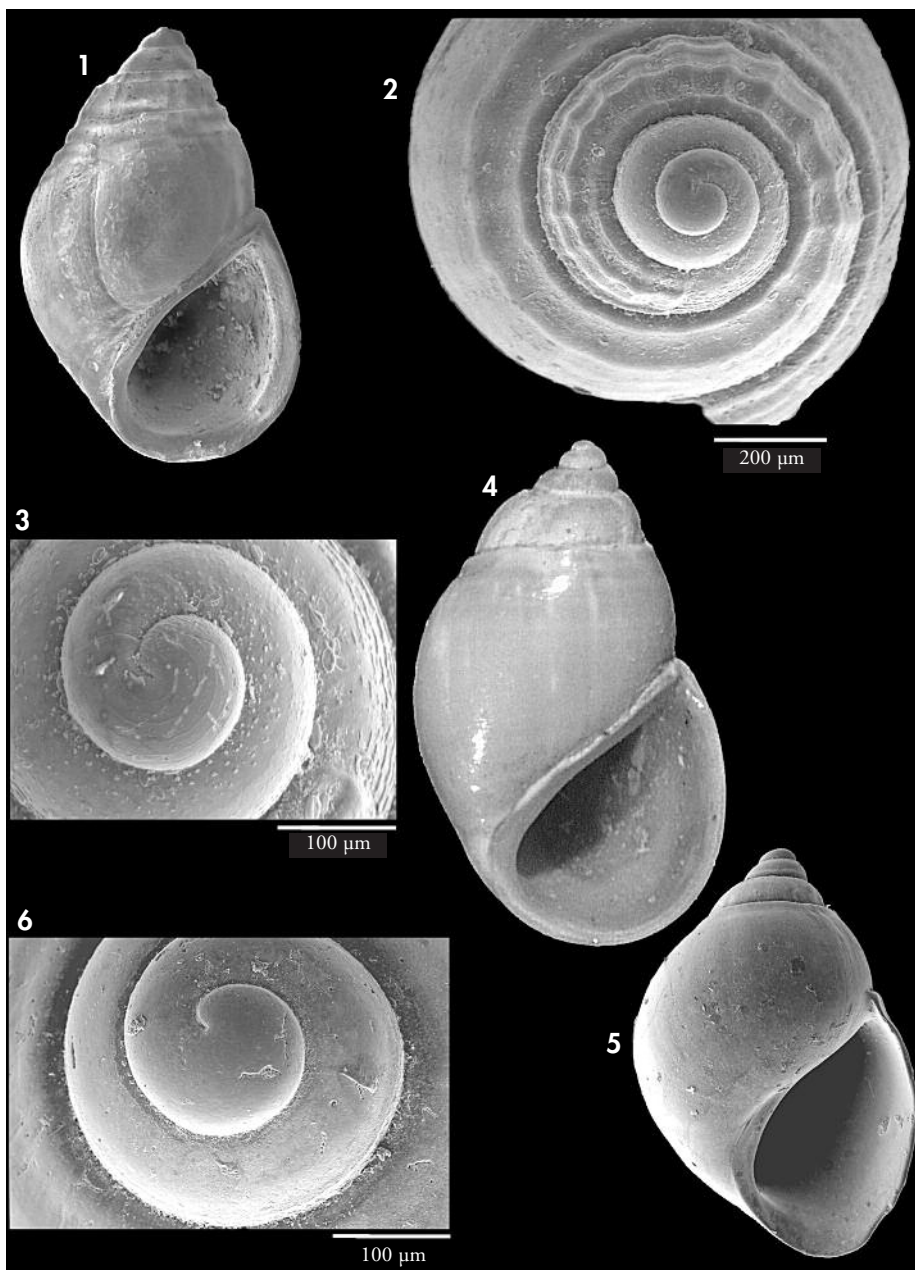
The authors want to thank Jesús Méndez of the CACTI, University of Vigo, for the SEM photos; to Félix Azpi-

licueta from San Sebastián for giving material of *P. asturiana* for SEM photographs.

## BIBLIOGRAPHY

BURNAY, L. P. 1989. *Plagyostila asturiana* P. Fischer, 1872 no Arquipelago de Cabo Verde. *Açoreana*, 7(1): 73-75.

GOFAS, S. AND PONDER, W. 1991. The habitat and relationships of *Plagyostila asturiana* (Gastropoda, Rissoidae). *Bulletin Muséum national d'Histoire naturelle*, Paris, 4<sup>e</sup> serie, 1-2: 39-47.



Figures 1-3. *Plagyostila senegalensis* spec. nov. 1: holotype, 2.0 mm, M'Bao, Dakar (MNHN); 2-3: detail of the spire and protoconch, paratype, Gouye Teni M'Both, Dakar (MNHN). Figures 4-6. *Plagyostila asturiana*. 4: shell from Vigo; 5: juvenile from San Sebastián, Spain; 6: protoconch, San Sebastián.

*Figuras 1-3. Plagyostila senegalensis spec. nov. 1: holotipo, 2.0 mm, M'Bao, Dakar (MNHN); 2-3: detalle de la espira y protoconcha, paratipo, Gouye Teni M'Both, Dakar (MNHN). Figuras 4-6. Plagyostila asturiana. 4: concha de Vigo; 5: juvenil de San Sebastián, España; 6: protoconcha, San Sebastián.*

- PALLARY, P. 1900. Coquilles marines du littoral du département d'Oran. *Journal de Conchyliologie*, 48: 211-422, pls 6-8.
- PONDER, W. P. 1988. A review of the Genera of the Rissoidae (Mollusca: Mesogastropoda: Rissoacea). *Records of the Australian Museum*, suppl. 4: 1-221.
- ROLÁN, E. 1983. Moluscos de la Ría de Vigo. 1. Gasterópodos. *Thalassas*, 1(1) suplement.: 1-383.