



Haedropleura ryalli, a new species from São Tomé Island (Gastropoda, Turridae)

Haedropleura ryalli, nueva especie de la isla de São Tomé (Gastropoda, Turridae)

Juan HORRO*, Sandro GORI** and Emilio ROLÁN***

Recibido el 10-III-2010. Aceptado el 31-VIII-2010

ABSTRACT

A new species of the genus *Haedropleura* Bucquoy, Dautzenberg and Dollfus, 1883 from the island of São Tomé, West Africa, is described and figured.

RESUMEN

Se describe e ilustra una nueva especie del género *Haedropleura* Bucquoy, Dautzenberg y Dollfus, 1883 recolectada en la isla de São Tomé, África occidental.

INTRODUCTION

The genus *Haedropleura* Bucquoy, Dautzenberg and Dollfus, 1883 is mentioned in POWELL (1966) who describes the shell, operculum and radula and refers that this genus has species from the European Miocene and Pliocene and also Recent from Europe and West Africa down to South Africa.

The introduction of scuba diving as a sampling technique in recent times along several areas of the West African coast where it had scarcely been used before has led to the availability of material from waters deeper than previously studied ones, bringing a number of interesting new species to the attention of malacologists. That happened in particular in São Tomé Island, a place characterised by the abundance of endemic species.

While studying the material collected by the second author by scuba diving in that island, the authors have identified a new species of *Haedropleura* which is described and illustrated in this paper.

Abbreviations:

MNHM Muséum national d'Histoire naturelle, Paris
MNCN Museo Nacional de Ciencias Naturales, Madrid
MNHN Muséum national d'Histoire naturelle, Paris
ZMB Zoologisches Museum, Berlin
CJH collection Juan Horro, Vigo
CPR collection of Peter Ryall, Maria Rain
CSG collection Sandro Gori, Livorno
s shell collected empty

* Montero Rios 30-3°, 36201 Vigo, Spain; juanhorro@telefonica.net

** Via Simesi, 7, 57123, Livorno, Italy; sandrogori@fastwebnet.it

*** Museo de Historia Natural, Campus Universitario Sur, 15782 Santiago de Compostela, Spain; erolan@emiliorolan.com

TAXONOMIC PART

Family TURRIDAE Swainson, 1840

Subfamily CRASSISPIRINAE Morrison, 1966

Genus *Haedropleura* Bucquoy, Dautzenberg and Dollfus, 1883

Type species (o. d.): *Pleurotoma septangularis* Montagu, 1803

Haedropleura ryalli spec. nov. (Figs. 1-7)

Type material: Holotype (Figs. 1-2) in MNHN (22883). One paratype (Figs. 3, 4) in MNCN (15.05/53578, 1 s) from type locality. Other paratypes from Minerio Reef, São Tomé, 00° 23' 01.6" N, 06° 46' 22.8" E, 41 m, in the following collections: MHNS (1 s), CSG (4 s), CJH (1 s), CPR (2 s).

Other material examined: 1 fragment, Minerio, São Tomé (MHNS).

Type locality: Lagoa Azul "Fundão", 36 m, São Tomé.

Etymology: Named after our colleague and friend Peter Ryall, who was the first to call our attention to the singularity of these shells.

Description: Shell (Figs. 1-6) fusiform rhomboid, elongate and solid with a high spire. Protoconch (Fig. 7) with about 1 1/4 whorls, with a diameter between 500 and 650 µm, placed in an oblique position, the nucleus not situated at the apex.

Teleoconch of the holotype with 4 1/2 convex whorls, each one having 7-8 prominent and thick axial ribs which go from suture to suture without any sub-sutural rib or smooth area, and are mostly aligned with those of the following whorl. Ribs becoming thinner and somewhat s-shaped on the last whorl. Suture deep and sinuous. Last whorl representing 65/70% of total shell height. Spiral sculpture formed by very fine and numerous striae on the whole surface, which pass over the axial ribs, extend down to the base and cover also the outer lip. Aperture oval elongate, with an evident parietal callus and smooth columella; siphonal canal short and wide; outer lip very much thickened. Background coloration light cream, with a dark brown subsutural band below which there are irregular and interrupted spiral lines of the same colour; in the middle of the body whorl these lines tend to form another broad band; lower base and mouth almost white.

Dimensions: The holotype is 5.7 mm; the paratypes measure from 5.6 to 6.2 mm.

Animal: Not studied.

Distribution: Only known from the two mentioned locations in São Tomé Island, from which we suppose it to be endemic. So far it has not been found in the closeby Príncipe Island, although material from this island available for study, from similar depths, has been scarce so far.

Remarks: Although the generic placement of this new species in the genus *Haedropleura* must be considered a tentative assignation, due to the lack of soft parts, it seems clear from a conchological perspective, because it presents a shape and micro sculpture typical of this genus.

Specially after the introduction of the genus *Anacithara* Hedley, 1922, for west african fauna (HORRO, RYALL AND ROLÁN, 2010), we are aware of the close relationship between these two genera. These can only be certainly separated using radular characters, according to KILBURN (1994) with whom we agree this point. It must be noted that *H. ryalli* shows the spiral sculpture of finer and numerous spiral striae which is typical of *Haedropleura*, instead of more distant incised grooves present in *Anacithara* and that it also presents a larger and different protoconch.

It must also be remembered that genus *Bellaspira* Conrad, 1868 has sometimes been considered as a senior



Figures 1-7. *Haedropleura ryalli* spec. nov. 1, 2: holotype, 5.7 mm, Lagoa Azul (MNHN); 3, 4: paratype, 5.7 mm, Lagoa Azul (MNCN); 5: paratype, 6.1 mm, Minerio (CSG); 6: paratype, 5.8 mm, Minerio (CPR); 7: protoconch of the holotype.

Figuras 1-7. Haedropleura ryalli spec. nov. 1, 2: holotipo, 5,7 mm, Lagoa Azul (MNHN); 3, 4: paratipo, 5,7 mm, Lagoa Azul (MNCN); 5: paratipo, 6,1 mm, Minerio (CSG); 6: paratipo, 5,8 mm, Minerio (CPR); 7: protoconcha del holotipo.

synonym of *Haedropleura*, but GIANNUZZI-SAVELLI AND PUSATERI (1986) have already solved this question,

showing conchological and radular differences between both genera and concluding that *Bellaspira* species is

restricted to the Caribbean and Panamic provinces, while the appropriate genus for European species is *Haedropleura*.

There is great confusion regarding the genus *Haedropleura* in Eastern Atlantic and Mediterranean waters and a general revision of the genus is very much needed, especially for West African waters. Recently MICALI (2010) referring only to Mediterranean species, shows three different ones and calls them *H. septangularis*, *H. secalina* (Philippi, 1844) and *H. flexicosta* Monterosato, 1884. It is not the aim of this paper to start on such a revision, which, at least in Atlantic waters, would include more species and should include information on the types.

ACKNOWLEDGEMENTS

We are grateful to the Department of Genetics of the University of Vigo for their help with photography, and to

However, we must state that *Haedropleura ryalli* sp. nov. is easy to separate from all other European and West African *Haedropleura* species due to its unique protoconch. This does not appear on any other species of this genus, even in those with paucispiral protoconchs such as *H. secalina* and *H. flexicosta* mentioned by MICALI (2010), or such as the one figured by NORDSIECK (1977: 75, plate 1, n° 8) under the genus name *Bellaspira*, which are clearly larger, with a more flattened top and does not show the typical position of the nucleus of *H. ryalli*. The constant pattern of *H. ryalli* which is not found in specimens from other locations also confirms its valid specific status.

Dr. S. Gofas, editor of *Iberus* who made important suggestions for this paper.

BIBLIOGRAPHY

- GIANNUZI-SAVELLI R. AND PUSATERI F. 1986. Ripristino validit  del taxon generico *Haedropleura* Monterosato in B.D.D., 1883 (Mollusca: Gastropoda). *Lavori, Societ  Italiana di Malacologia*, 22, Atti Congresso Palermo 13-16 sett 1984: 163-168.
- HORRO J., RYALL P. AND ROL N E. 2010. *Anacithara* (Conoidea, Turridae) a new genus to West Africa. *Gloria Maris*, 49 (1): 14-22.
- KILBURN R.N. 1988. Turridae (Mollusca: Gastropoda) of southern Africa and Mozambique, Part 4. Drilliinae, Crassispirinae and Strictispirinae. *Annals of the Natal Museum*, 29 (1): 167-320.
- KILBURN R.N. 1994. Turridae [s. l.] (Mollusca: Gastropoda) of southern Africa and Mozambique. Part 7. Subfamily Crassispirinae, section 2. *Annals of the Natal Museum*, 35: 177-228.
- MICALI P. 2010. Nota sul genere *Haedropleura* B.B.D., 1883 nel Mediterraneo. *Malacologia Mostra Mondiale*, 67: 3-5.
- NORDSIECK F. 1977. *The Turridae of the European Seas*. Rome, La Piramide. 131 pp.
- POWELL A.W.B. 1966. The Molluscan families Speightiidae and Turridae. *Bulletin of the Auckland Institute and Museum*, 5: 1-184, 23 pls.