In tro d u c tIo n

Boettger (1908) made a brief conchological description of a Quaternary fossil taxon from the Tejina Ravine, Tenerife Island, Canary Archipelago (Fig. 1), with the name *Hemicycla puchet var. eurythyra*, as follows:

“Differt a typo t. minus solida, magis depressa, apert. majore, transverse subovali, perist. minus incrassato, minus revolute reflexo, intus sublabiato, margine col-lumellari minus distincte tuberculifero. – Alt. 14–15, diam. max. 25–26 mm; alt. apert. 13–13½, lat. apert. 16 mm.”

No subsequent data has been published on this taxon and it is regarded as “incertae sedis” (Bank, Groh & Ripken, 2002: 206; Alonso & Ibáñez, 2007: 4). In this paper it is redescribed as a species distinct from *Hemicycla puchet* (A. Féru ssac 1821) and compared with *H. pouchet* and with the conchologically similar *H. (Hemicycla) pouchadan* Ibáñez & Alonso 2007.

M e th o d s

The studied material has been deposited in AIT and the private collections of M. Artiles and J. Martín. It consists of ten living specimens from Bajamar (leg. M. Artiles, May 2008) and several fresh and Quaternary fossil shells from the area shown in Fig. 1, collected between 1985 and 2007. The fossil shells come from a Pleistocene aeolian deposit older than 130 kyr BP (Castillo et al., 2006). The photographic methodology used is described in detail by Ibáñez et al. (2006). The standardized shell measurements are shown in...
Fig. 2. The measurements (Table 1) were obtained following the methodology of Alonso, Nogales & Ibáñez (2006) and Alonso et al. (2006) with analySIS® software produced by Soft Imaging System GmbH. Calculation of the number of shell whorls follows Kerney & Cameron (1979: 13). “Proximal” and “distal” refer to the position in relation to the ovotestis. The terminology of parts of the distal male genital system is the same as described in Alonso & Ibáñez (2007). Photographs (Dr. Eike Neubert, SMF) of a specimen regarded by the SMF as a probable syntype of Hemicycla eurythyra (SMF 7301, H=14.8 mm, D=23.3 mm, filename: “hele0, Teneriffa: Barranco ???, ex M. Schultze 1908” [original label O. Boettger was missing]) are shown for comparison, with the permission of SMF (Fig. 3A).

**Table 1** Hemicycla eurythyra, shell dimensions of the living population measured (in mm or mm², 10 specimens measured). Abbreviations: SD, standard deviation; Min, minimum; Max, maximum; other abbreviations as in Fig. 2.

<table>
<thead>
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<th>Character</th>
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<th>SD</th>
<th>Min</th>
<th>Max</th>
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<td>BP</td>
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<td>2.66</td>
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<td>69.19</td>
</tr>
</tbody>
</table>

**Abbreviations**

AIT Alonso & Ibáñez collection, Department of Animal Biology, University of La Laguna, Tenerife, Canary Islands, Spain.


SMF Natur-Museum Senckenberg, Frankfurt/Main, Germany.

**Systematics**

Genus *Hemicycla* Swainson, 1840

Type species (by monotypy): *Helix plicaria* Lamarck, 1816

*Hemicycla (Hemicycla) eurythyra* O. Boettger 1908

**Description** Body dark blue-greyish coloured, sole greyish (Fig. 3B). The shell (Figs 3A, C, D; Table 1) is imperforate, conic-globose, with a soft shine, 4½ convex whorls and well-marked sutures. Shell colour, uniform dark reddish-brown. Body whorl angulated (in some specimens until the peristome) and slightly gibbose in the descending zone towards the aperture. Aperture rounded. The white peristome is reflected to cover the umbilicus and is upwardly recurved in the palatal zone. The margins barely converge at the insertion and are united by a white parietal lip.

Shell ornamentation (Figs 3C, D) is formed by numerous smooth, radial ribs, regularly arranged, in a similar disposition above and below the periphery. The shell surface between the radial ribbing has minute striations, produced by very numerous, fine and dense, spiral grooves (Fig. 4).
Genital system (Fig. 5: 2 specimens dissected): Atrium very short. Bursa copulatrix complex with a thick, well developed diverticulum, slightly shorter than the bursa copulatrix duct which, in turn, is shorter than the common stalk and slightly swollen distally, shortly before entering the proximal vagina. Bursa copulatrix small and globular, with its neck inserted into the diaphragm.
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Albumen gland particularly long. Dart sac accompanied by a pair of branched tubular mucous glands. The penial complex displays a flagellum longer than the sum of penis plus epiphallus. Retractor muscle with an epiphallar insertion.

Distribution and habitat (Fig. 1) This species is endemic to Tenerife. It occurs only at an altitude of 20–460 m in a small area in the eastern part of the island (between Tejina Ravine and Bajamar), at the northwest of the dorsal chain of Anaga mountains, in open areas with lowland vegetation.

Remarks H. eurythyra is conchologically comparable with H. (Adiverticula) pouchet (A. Férussac 1821) and H. (Hemicycla) pouchadan Ibáñez & Alonso 2007, which also live in the eastern part of Tenerife, but at the south of the Anaga mountains. The syntypes of the last two species were incorrectly considered by Férussac as syntypes only of H. pouchet. This taxonomic and nomenclatural problem was recently clarified by Bank et al. (2002) and Ibáñez & Alonso (2007).

Hemicycla pouchet (Figs 3E, F) is conchologically more similar to H. eurythyra. However, both species belong to different subgenera for their respective presence/absence of a diverticulum in the bursa copulatrix complex. They also differ in shell ornamentation. Thus, H. pouchet has a granulated shell, with the granulations arranged on weakly accentuated radial striae which do not reach to form costulae and tend to disappear below the periphery, near the columellar zone.

Hemicycla pouchadan shares with H. eurythyra the presence of the diverticulum in the bursa copulatrix complex but the shell of H. pouchadan (Ibáñez & Alonso, 2007: Figs 3C, D) is smaller and has radial ribs, each with a strong transverse striation produced by very numerous, fine and densely set spiral grooves which do not appear on the shell surface between the radial ribs.

The fossil material of Boettger has similar dimensions to that of the living population measured here (Table 1). Only two of our specimens slightly exceed the size of Boettger’s material. The dimensions of the probable syntype of H. eurythyra (SMF 7301) are slightly smaller than found in Boettger’s material and in material examined here (Table 1).

Acknowledgements

We are grateful to Dr. Eike Neubert (SMF) for the photographs of the probable syntype of Hemicycla
Rediscovery and redescription of *Hemicycla eurythra*, to SMF for permission to publish and to Mr. Klaus Groh (Hackenheim) and an anonymous referee for their very valuable comments and suggestions.

**References**


