

The genus *Semele* in West Africa (Mollusca: Bivalvia: Semelidae)

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Abstract: The presence of *Semele modesta* (Reeve, 1853) in the Gulf of Guinea is confirmed. The relationship and the differences with *S. martinii* (Reeve, 1853) from the West Atlantic and *S. lamyi* from West Africa are discussed.

Abbreviations:

CFN: Private collection of Frank Nolf.

CFS: Private collection of Frank Swinnen (Lommel, Belgium)

H.: Height.

L.: Length.

LV: Left valve.

RV: Right valve.

Diagnosis:

Family SEMELIDAE Stoliczka, 1870

Genus *Semele* Schumacher, 1817

In W Africa the genus *Semele* is represented by two species only:

Semele modesta (Reeve, 1853)

Pl. I, Figs 1-4; Pl. II, Figs 5-7

= *Amphidesma modesta* Reeve, 1853

This species belongs to the 'decisa'-group, which contains several rather large, heavy, irregularly commarginally sculptured species. Until recently most authors followed Boss (1972) and considered a rare, deeper water species from Brazil and Uruguay as an amfiatlantic species with *modesta* as the earliest name. Yet, we agree with Huber (2010) in stating that the South American species is distinct from the West African *modesta*. It was named *Amphidesma martinii* by Reeve (1853).

Semele martinii grows larger, more than 62 mm, whereas the West African *Semele modesta* is usually smaller than 30 mm. Both species are uncommon. The habitat is distinct. *Semele martinii* is a sublittoral sand-dwelling species from at least 55-120 m, whereas *S. modesta* can be dived subtidally in sandy gravel at a depth of 4-6 m in São Tomé. The sculpture in adult specimens is quite distinct. The valves of *S. martinii* are commarginal fading anteriorly and

very irregular posteriorly (like other species of the *S. decisa*-group), whereas in *S. modesta* the shells are rather equal, roughly ridged with dense fine radials. The description and the figure (fig. 1544 on p. 554) by Rios (2009) relate to *S. martinii*. Boss (1972; pl. 4 fig. B) illustrates a relatively large *S. modesta* (38.8 mm) from Ascension (W Africa). In the previous decade several specimens were dived by Italian and Belgian shell collectors in the Islands of São Tomé and Príncipe.

Geographic distribution: Liberia, the Gulf of Guinea (St. Helena, Ascension, São Tomé, Príncipe, Gabon).

Type locality: Cape Palmas (Liberia).

Semele lamyi Nicklès, 1955

Pl. II, Figs 8-9

= *Semele obliqua* Lamy, 1914 [non Wood, 1815]

= *Semele purpurascens* Nicklès, 1950 [non Gmelin, 1791]

Another *Semele* from W Africa is *S. lamyi* Nicklès, 1955 (Pl. II, Figs 8-9). It was referred to as *S. purpurascens* (Gmelin, 1791) by Lamy (1923) and Nicklès ((1947; 1950; 1952), a species living from North Carolina (USA) to the Rio de la Plata (which separates Uruguay and Argentina), the coasts of the Gulf of Mexico, Texas, East Mexico and the Caribbean Sea. It is also found in the East Pacific, from Panama, Nicaragua and the Galapagos Islands towards the coasts of South America (Ecuador, Peru to Chile) (= *S. sparsilineata* Dall, 1915). Originally, Nicklès (1950) reported *S. purpurascens* as a West African species from Senegal, Guinea and the Republic of the Congo. However, his description and figure were based on a specimen from the Antilles (Caribbean Sea). Later on (1955), he obtained several valves from the Atlantide-expedition and he described *S. lamyi* as a new species. *S. lamyi* is different by the character of the pallial sinus (smaller), the strength of the cardinal dentition (less developed) and the nature of the sculpture. The surface lamellae of the outer surface of *S. purpurascens* are obliquely crossing the growth lines in the anterior and the median part of the

valves, whereas in *S. lamyi* they run parallel to each other.

Geographic distribution: From Senegal to Angola.

Type locality: Guinea-Bissau.

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Geographic range:

S. modesta (Reeve, 1853) ———

S. lamyi Nicklès, 1955 ———

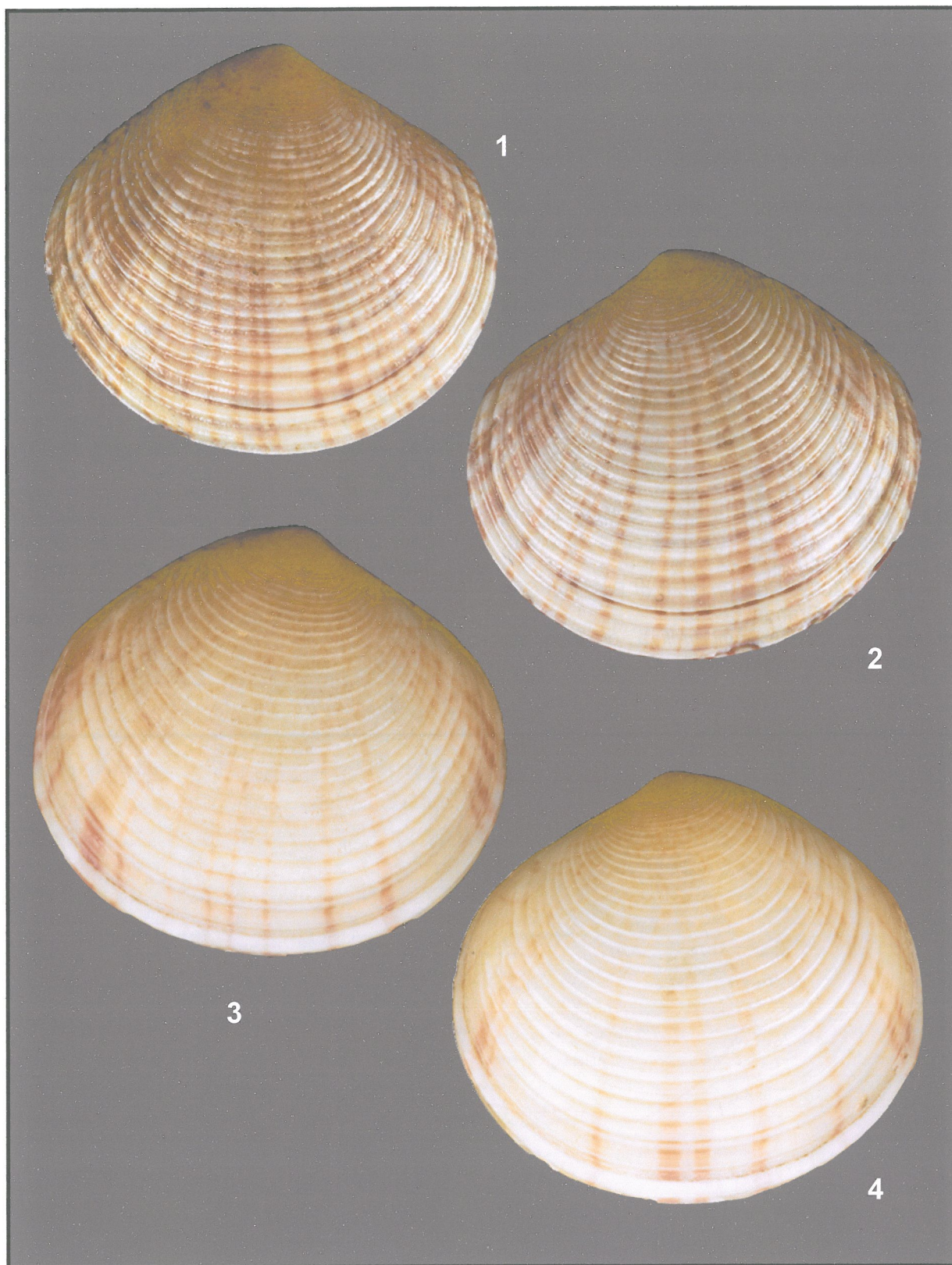


Plate I. Figs 1-4: *Semele modesta* (Reeve, 1853). Lagoa Azul, São Tomé, Gulf of Guinea. Dived in sandy gravel at a depth of 5 m; 1-2: CFN. H. 22.17 mm L. 24.68 mm; 1: RV; 2: LV; 3-4: CFS. H. 23.19 mm L. 25.49 mm; 3: RV; 4: LV.

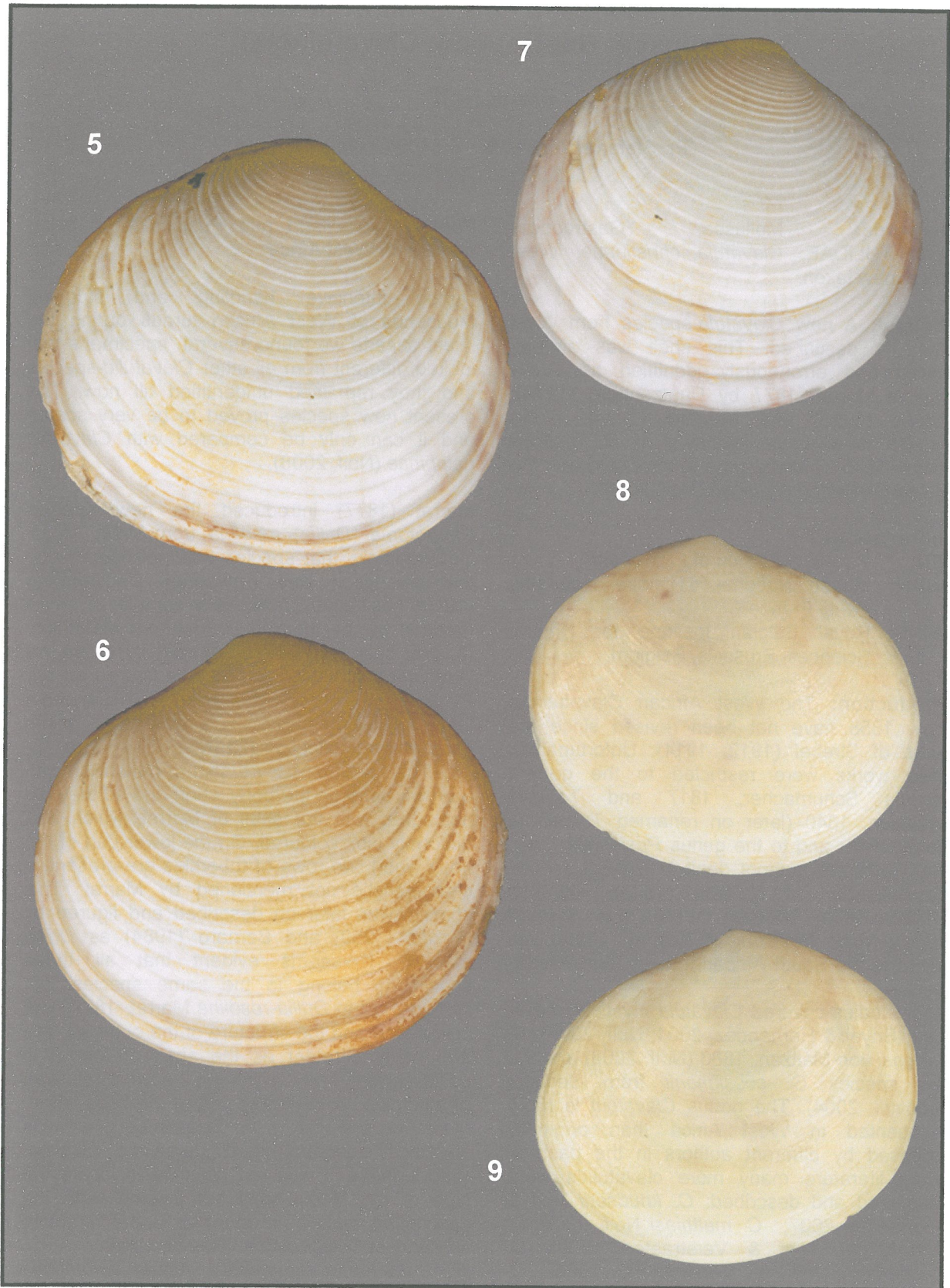


Plate II. Figs 5-7: *Semele modesta* (Reeve, 1853). Lagoa Azul, São Tomé, Gulf of Guinea. Dived in sandy gravel at a depth of 5 m. CFS; 5-6: 26.41 mm L. 28.79 mm; 5: RV; 6: LV; 7: RV. H. 22.08 mm L. 24.14 mm; Figs 8-9: *Semele lamyi* Nicklès, 1955. Pointe-Noire, Republic of the Congo. Dredged in sand at a depth of 8 m. 1992. CFN. H. 17.93 mm L. 20.43 mm; 8: RV; 9: LV.