# *Cymbium ferranti* Nolf, 2022 (Mollusca: Gastropoda: Volutidae), a new species from Cameroon

speaker: Frank Nolf

**Abbreviations:**

**CFN:** Private collection of Frank Nolf (Oostende, Belgium)

**CSH:** Private collection Steve Hubrecht (Koksijde, Belgium)

**MNHN:** Museum national d'Histoire naturelle (Paris)

**PEMARCO:** Pêche maritime du Congo

**RBINS:** Royal Belgian Institute for Natural Science (Brussels, Belgium)

At present **fifteen different species** in the genus *Cymbium* are known. They are geographically distributed from the western end of the Mediterranean Sea and the coast of Portugal and then southward to West Africa, ending at the border of Angola and Namibia.

*Cymbium* species have a bathymetric range from the littoral to about 50 m, but a few species also occur in deeper waters from 100 to 180 m.

Most *Cymbium* animals prefer a habitat of mud and sand bottoms in quiet bays or lagoons from the littoral to about 50-75 m.

In spite of their relatively large dimensions and solid appearance, the West African species of the genus *Cymbium* belong to a taxonomically not fully defined group within the family VOLUTIDAE.

The genus *Cymbium* has often been subject of a thorough study in ancient and recent literature: Broderip (1830), Pallary (1930), Weaver & DuPont (1970), Tripodi (1972), Bruynseels (1975), Marche-Marchad (1977), Marche-Marchad & Rosso (1978), Fittkau & Stürmer (1980 & 1985), Poppe & Goto (1992) and Nolf (2017).

# *Cymbium ferranti* sp. nov.

**Type material:** 4 specimens.
**Holotype:** Kribi, Cameroon. Dived on muddy sand.
December 1975. 119.22 mm.
MNHN-IM-2000-38232.
**Paratypes:** All from the type locality.
**Paratype 1:** 143.72 mm. CFN.
**Paratype 2:** 198.61 mm. CFN.
**Paratype 3:** 96.8 mm. CSH.

**Type locality:** Kribi, Cameroon.

**Description:**

- Shell heavy and **solid**.
- **Slender and elongate** in outline, **tapering** and becoming very narrow towards the sutural ramp.
- Aperture with a curved outer lip, slightly globose in adult specimens.
- **Protoconch raised above the sutural ramp** and nearly completely covered by a brown callus.
- **No traces of a sutural incision**.
- Sutural ramp moderately small to rather broad towards the adapical notch, weakly hollowed out.
- Posterior shoulder ridge of the body whorl slightly carinated, even obscure but distinct.

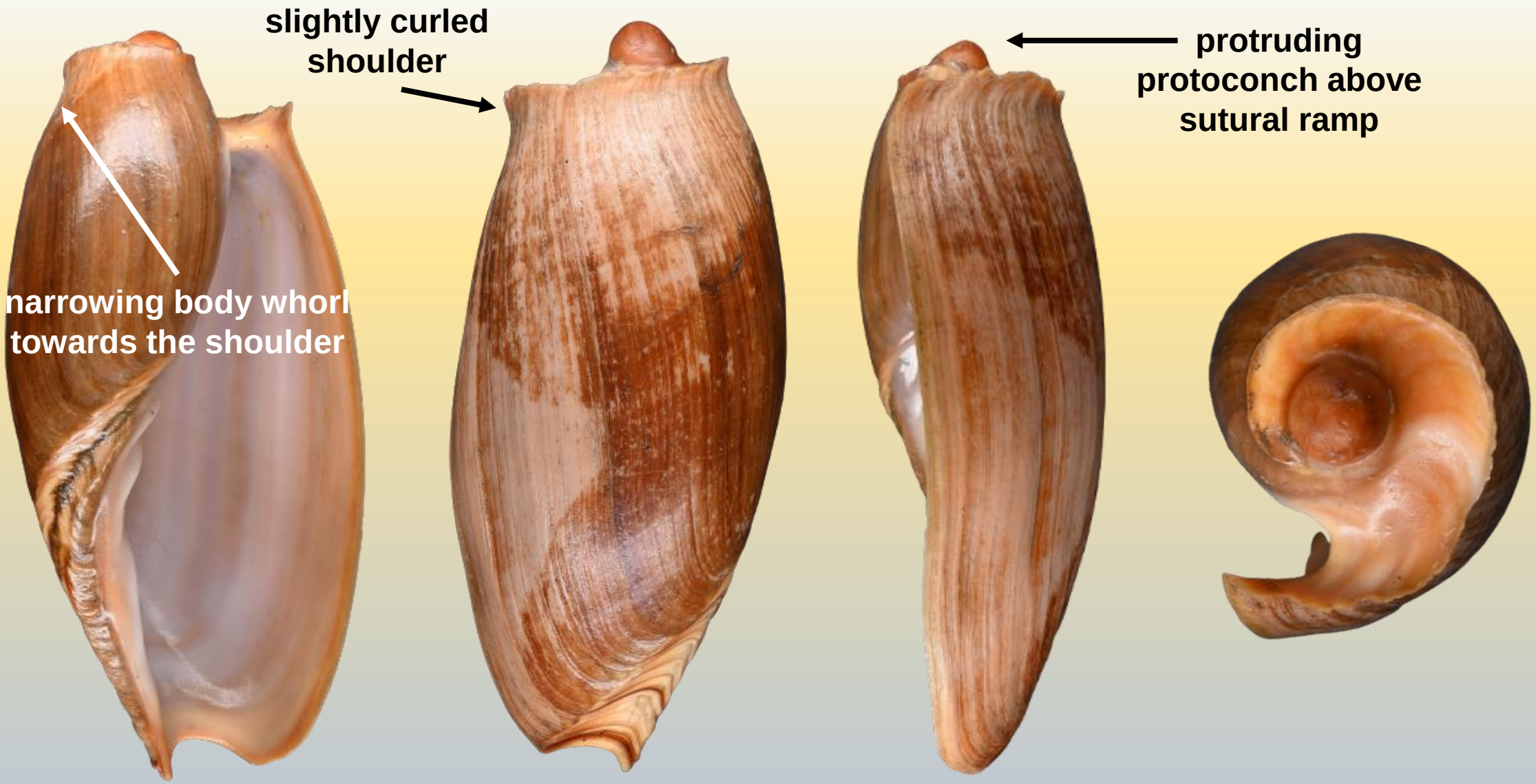
- Columella with **3 folds**, occasionally a very obscure fourth plait, all variably creamy white or light brown coloured.
- The adapical part is very narrow and small, with a **bluish grey tinge** just below the adapical notch.
- **Siphonal notch rather wide**, slightly flattened and not as deepened as in *C. coenyei* Nolf, 2017 *or Cymbium patulum* (Broderip, 1830).
- The interior of the aperture is light brown coloured with streaks of bluish-grey with a brown border near the aperture's edge, the outer surface is pinkish-brown to brown coloured.
- Periostracum extremely thin and dark brown coloured, usually for **3/4 covered by an enamelled layer** in adult specimens.

## Remarks:

The present new species has certainly been **overlooked** in the past. For instance, **Nolf (2017)** figured a specimen of this species on Plate XX, figs 77-79 with the caption '*Cymbium pachyus* (Pallary, 1930)'. It is now introduced here as the holotype of *Cymbium ferranti* sp.nov.

The same mistake was made by **Ardovini & Cossignani (2004)**, who identified a specimen of this species from Conakry (Guinea) as *Cymbium patulum* (Broderip, 1830) (p.181), a species restricted to Angolan waters and never reported from that latitude (Conakry).


**Geographic distribution of *Cymbium ferranti* sp. nov.**




*Cymbium ferranti* sp. nov.
Off Kribi, Cameroon, W Africa. Dived. December 1975.
119.22 mm. Holotype. MNHN.

***Cymbium ferranti* sp. nov.**
**Off Kribi, Cameroon, W Africa. Trawled by fishermen on muddy sand. March 2018.**
**143.72 mm. Paratype 1. CFN**

***Cymbium ferranti* sp. nov.**
**Off Kribi, Cameroon, W Africa. Trawled by fishermen on muddy sand. March 2018.**
**96.8 mm. Juvenile specimen. Paratype 3. CFN**

***Cymbium ferranti* sp. nov.**
**Off Kribi, Cameroon, W Africa. Trawled by fishermen on muddy sand. March 2018.**
**198.60 mm. Paratype 2. CFN**

# Comparison with similar species from the same and adjacent waters

- ***Cymbium glans* (Gmelin, 1791):**

  * Much larger shell (170 to max. 365 mm).
  * Elongate and **not as tapered towards the sutural ramp**, which is broader.
  * Posterior end **more curled outwards and carinated**.
  * **Protoconch** well covered with a brown callus, but **not raised** above the sutural ramp.
  * Body whorl **completely covered** up to the margin with an **enamelled layer.**
  * Broad, shallow siphonal notch.
  * Colour pale brown.

**Geographic distribution:** From Mauritania to the Gulf of Guinea.

***Cymbium glans*** **(Gmelin, 1791).**
**Off Kribi, Cameroon, W Africa. Trawled by fishermen on muddy sand.**
**2018. 144.95 mm. CFN.**

***Cymbium glans*** **(Gmelin, 1791).**
**Off Kribi, Cameroon, W Africa. Trawled by fishermen on muddy sand.**
**2018. 200.77 mm. CFN.**

- ***Cymbium pachyus* (Pallary, 1930):**

* A nearly flat sutural ramp.
* Presence of a **glazy callus all over the surface** of the body whorl.
* Shoulder ridge extending **above** the protoconch in most specimens.
* Uniform brown colour of the aperture.
* A constant number of **4 columellar folds** (instead of 3, rarely 4 in *C. ferranti*).

**Geographic distribution:** From Benin, Togo, Nigeria to the coasts of Cameroon.

***Cymbium pachyus* (Pallary, 1930).**
**Off Kribi, Cameroon, W Africa. Trawled by fishermen on muddy sand. December 1975. CFN. 84.39 mm.**

***Cymbium pachyus*** **(Pallary, 1930).**
**Off Kribi, Cameroon, W Africa. Trawled by fishermen on muddy sand. December 1975. CFN. 112.83 mm.**

***Cymbium pachyus*** **(Pallary, 1930).**
**Off Kribi, Cameroon, W Africa. Trawled by fishermen on muddy sand. December 1975. 112.29 mm. CFN.**

***Cymbium pachyus*** **(Pallary, 1930).**
**Off Kribi, Cameroon, W Africa. Trawled by fishermen on muddy sand.**
**December 1975. 125.94 mm. CFN.**

***Cymbium pachyus*** **(Pallary, 1930).**
**Off Kribi, Cameroon, W Africa. Trawled by fishermen on muddy sand.**
**December 1975. 133.98 mm. CFN.**

- ***Cymbium patulum* (Broderip, 1830):**
  *** Lighter and more globose** shell.
  * **Sutural incision** over a distance of 450° to 540° compared to the absence of it in *C. ferranti*.
  * **Creamy white to salmon-orange** coloured mouth.
  * Wider adapical notch and the broader adapical area.
  * **Protoconch not extending** above the sutural ramp and not covered with an enamelled layer.

**Geographic distribution:** From northern Angola to the border between southern Angola and Namibia.

***Cymbium patulum*** **(Broderip, 1830). Ambriz, Angola. 07°51’ S/ 13°08’ E. Trawled by Belgian fishermen (PEMARCO) at a depth of 100 m. 1967. 168.13 mm. CFN.**

- ***Cymbium coenyei* Nolf, 2017:**

  ***** A **more fragile** shell.
  * The **protoconch is sunken** and completely covered by a thick brown callus, compared to the protruding protoconch of *C. ferranti*.
  * The **bluish-grey** adapical area is broader and not tapered.

**Geographic distribution**: Mouth of the Congo River, Democratic Republic of the Congo.

***Cymbium coenyei*** **Nolf, 2017. Holotype.**
**Off the mouth of the Congo River, near the lighthouse between Banana and Cabinda, Democratic Republic of the Congo. 05°59’ S/ 12°21’ E. Trawled by Belgian fishermen (PEMARCO) on a muddy bottom at a depth of ca 20 m. 1967. RBINS (IG 33588, MT 3618). 121.23 mm.**

- ***Cymbium fragile* Fittkau & Stürmer, 1985:**

  *** Thin, fragile** shell.
  * **Slender** with an oval outline.
  * Microsculpture of the outer surface shows **fine growth marks** and is still partially visible under the periostracum.
  * Sometimes the body whorl is crossed by a series of more than fifty dark **brown parallel lines**.
  * The **protoconch is elevated** and clearly visible like in *C. ferranti*, but not covered by a callus.
  * The parietal area from the umbilicus to the shoulder is covered with a **glazy callus** for **1/3 of the surface** of the last whorl.
  * The shoulder is strongly curved over the narrow deep slope of the sutural platform.

* No callus visible at the interior side of the very narrow sutural platform.
* The **edge of the mouth is sharp and thin**, except in older specimens.
* Number of columellar plaits: 3-4, sometimes 5.
* **Siphonal notch broad** and not deeply incised.
* **Periostracum thin**, sometimes brown with a weak **olive-green tint**, darker in the siphonal region.
* Inside of the shell is orange-cream or reddish-brown coloured.

**Geographic distribution**: Ivory Coast, Ghana, Togo, Benin, Nigeria, Gabon, Angola.

***Cymbium fragile*** **Fittkau & Stürmer, 1985.**
**Off Luanda, Angola. 08°45’ S/13°20’ E. Trawled by Belgian fishermen (PEMARCO) 60 km offshore on a muddy bottom at a depth of 183 m. 1973. 142.13 mm.**

**Conclusion:**

It may be surprising that **two new *Cymbium* species** have been described **in the past five years** from the **Gulf of Guinea - southern Angola area**. The reason is that it concerns **a very overlooked region** inhabited by a mollusc fauna, not always easily accessible to shell collectors or scientists. We depend too often on the **local fishery** who has no or poor interest for accurate information about exact locality, depth and habitat of their catches. Most specimens obtained from fishermen are intended for **food purposes** or processed as **utensils**.

A few new species were described in the last decades, other species redescribed because they were **confused** with similar species or forgotten by lack of recently collected material, despite the limited number of species. Many authors have tried to revise the genus *Cymbium*, but most attempts failed since the material studied was obtained from **unreliable sources** and often data or conclusions were copied from each other. Descriptions often refer to wrong figures or pictures that are accompanied by **incorrect captions**.

*Cymbium ferranti* is an example of these **‘neglected-confused’ species**. Finds of some rare specimens of it, among populations of ***Cymbium glans*** and especially of ***C. pachyus***, were considered in the past as aberrant forms and always received the label of one of both.

Nevertheless, *Cymbium ferranti* – named after the late **Alain Ferrant**, active member of the **‘*Neptunea*’-study group** - shows **constant characteristics** and is distinctly different from its related species: the combination of the **protruding protoconch**, the very slightly curled shoulder and especially the **narrowing last whorl towards the sutural slope** makes it special among others.