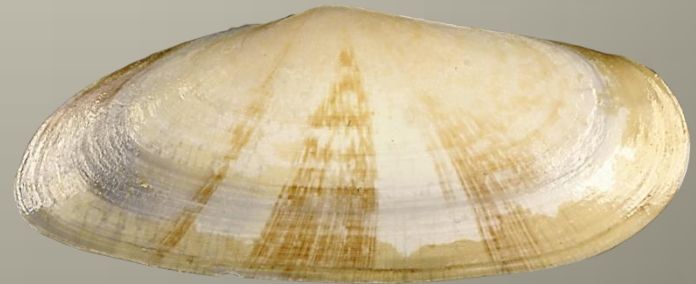


Donax (Cassella) longissimus
Jaeckel & Thiele, 1931

in Western Sahara ...
an unexpected expansion of the
distribution area



speaker: Frank Nolf

- Rika Goethaels and Fernand De Donder: shelling at La Sarga, Dakhla (Western Sahara, Morocco) in October 2012: find of an unknown *Donax* species with animal remains in fishing nets (20-30 specimens);
- depth: approximately 20 m;
- bottom: muddy;
- measurements: 30-40 mm













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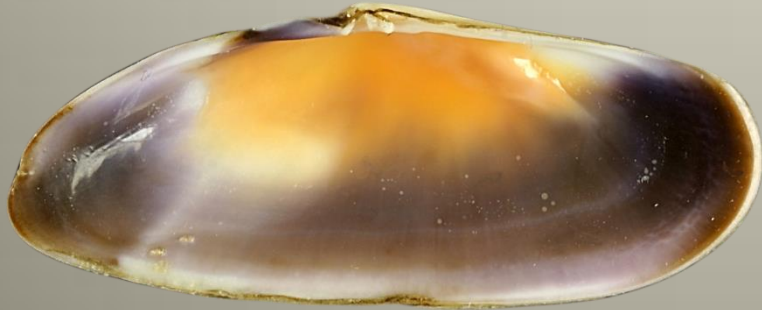


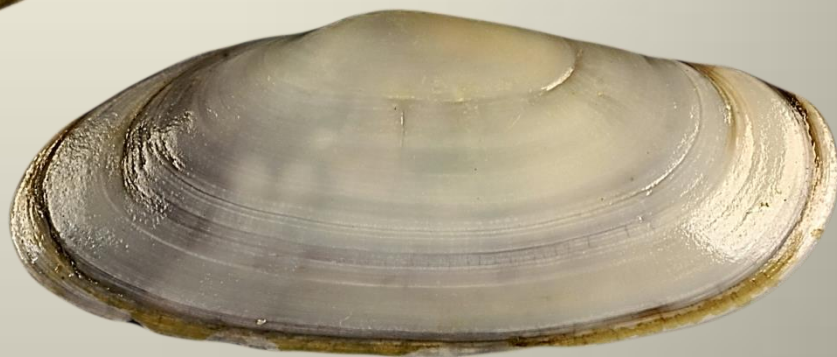
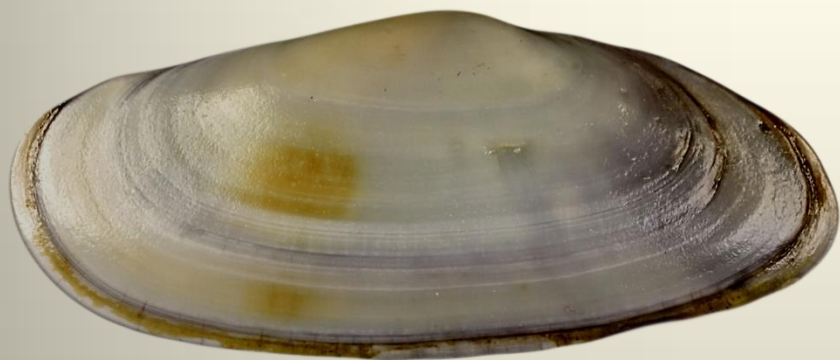


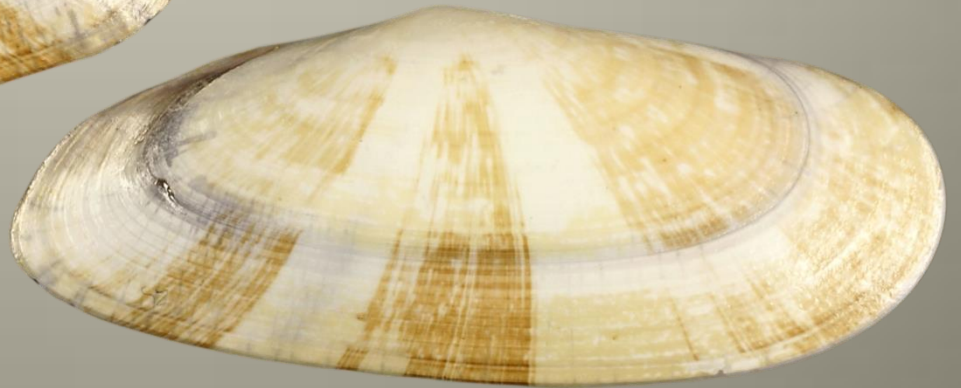


Donax longissimus Turton, 1932





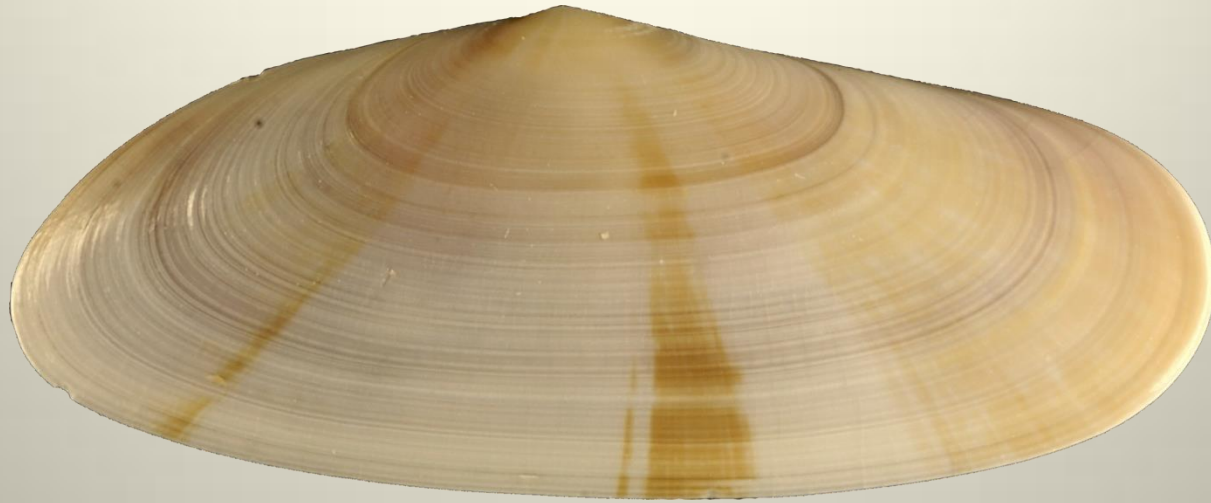




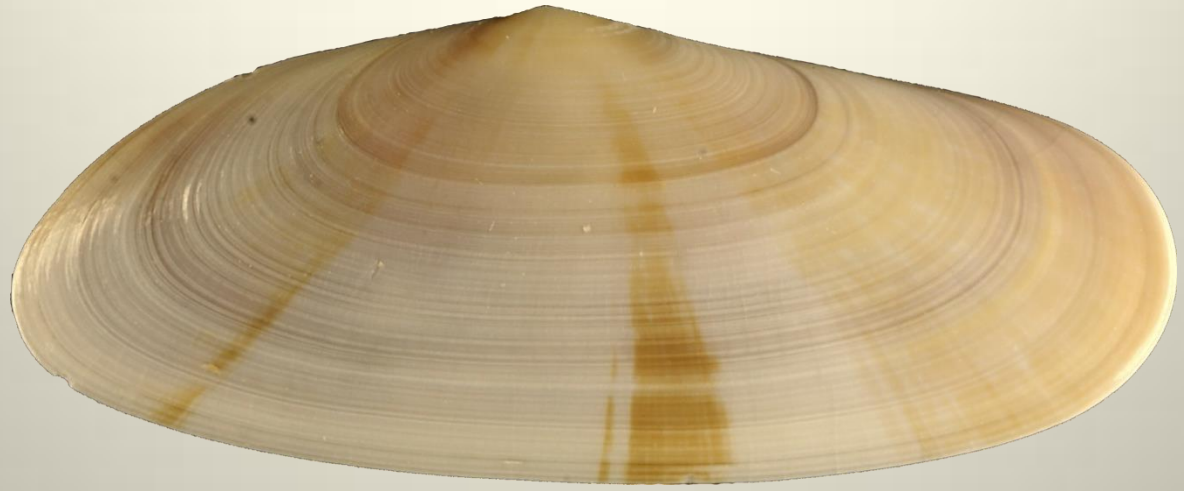


- R. von Cosel (1995) confused this species with *Donax burnupi* G.B. Ill Sowerby, 1894 as 'a species with disjunct distribution and originally described from South Africa, which in the northern part of its range is now strictly confined to the zone with predominant upwelling and colder waters (Mauritania, North of Senegal)'

- Comparison with single valves labeled as '*Donax burnupi*' in the collection of Alain Ferrant (Knokke, Belgium): the specimens, collected at Jeffreys Bay and in KwaZulu-Natal, showed a complete similarity to the material from Dakhla and certainly were different from *Donax burnupi* !!



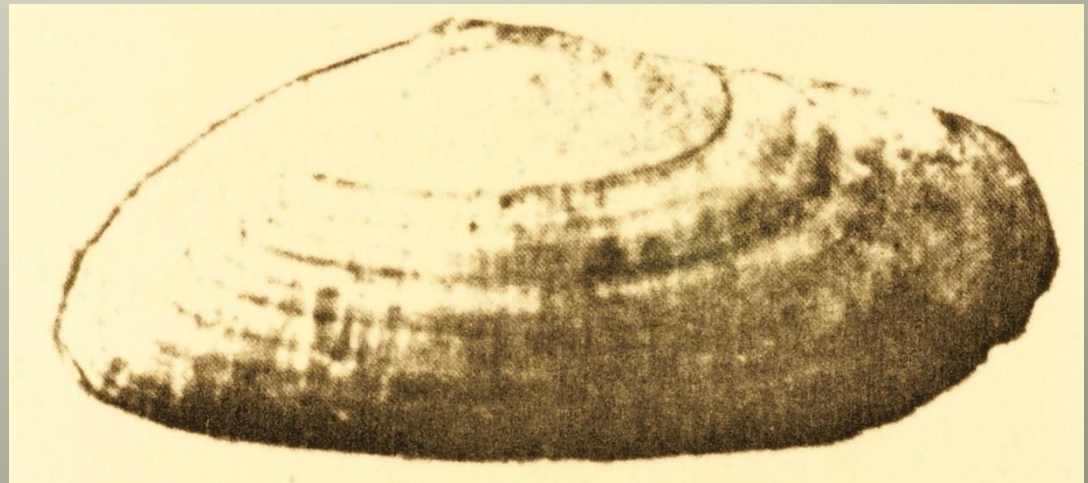
Winkelspruit, KwaZulu-Natal, RSA



Winkelspruit, KwaZulu-Natal, RSA

Literature:

- W.H. Turton: *The Marine Shells of Port Alfred S. Africa* (1932): '*Psammotellina prolongata*, new species, Pl. LXVIII, fig.8, 1779 – Port Elizabeth, juvenile specimen of 3,5 x 8 mm;
- Thiele, J. & Jaeckel, S.G.A.: *Muscheln der Deutschen Tiefsee-Expedition* (1931): pp 161-268, plate IV, fig. 116: the hand-drawn figure is confusing and does not much match the type material!



**W.H. Turton: The Marine Shells of Port Alfred
S. Africa (1932): *Psammotellina prolongata***

**Figure of *D. longissimus* by Jaeckel &
Thiele (1931)**



- Barnard (1964): *Annals of the South African Museum*, vol. XLVII, Part III, p.530:

'*D. burnupi* en *D. longissimus* Jaeckel & Thiele, 1931: two different species?'

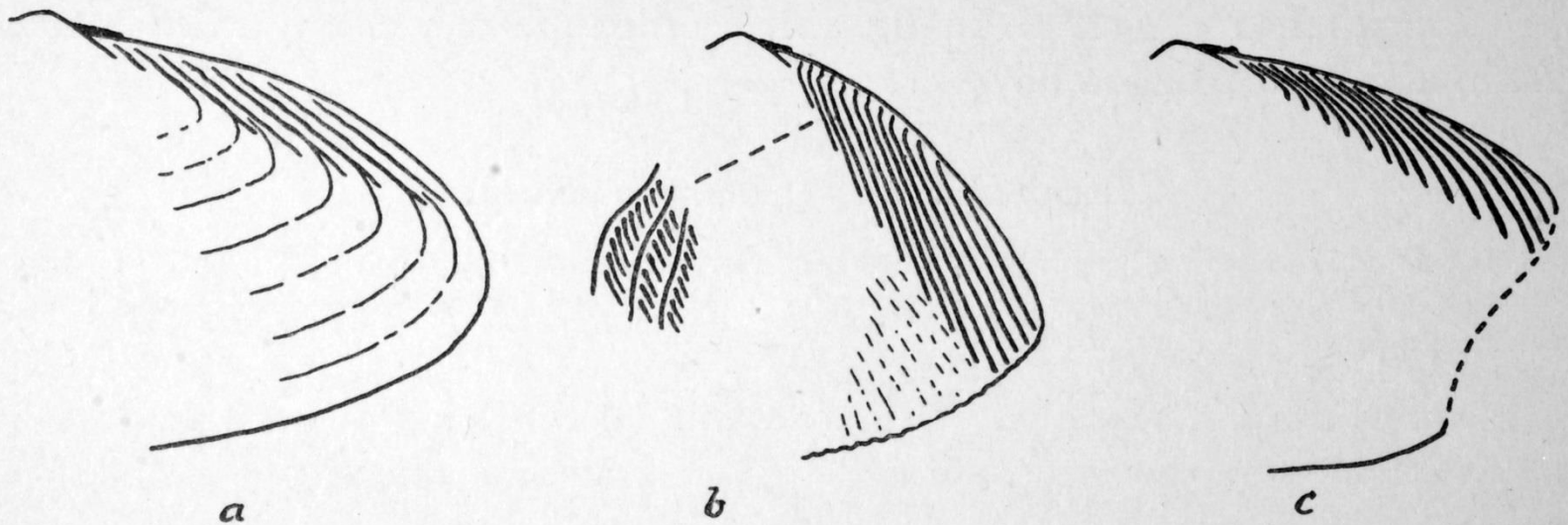


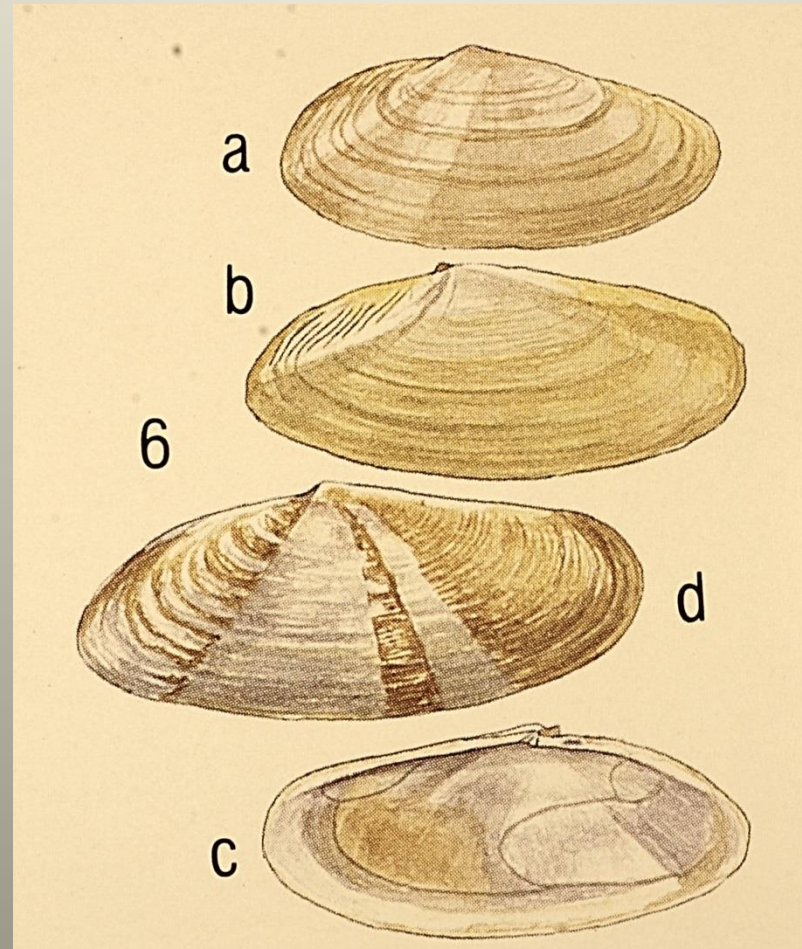
FIG. 30. Posterior end of: *a*, *Donax burnupi* Sow. *b*, *bertini* Pilsbry. *c*, *Donax* sp., off Tugela River.

- Kilburn & Rippey (1982): *Sea Shells of Southern Africa*, p.189:
'*D. burnupi* – *D. longissimus*: clearly synonymous', but not on the base of text and figures, fide F. Nolf)!

After control of the text and the figures by Jaeckel & Thiele (1931) Kilburn & Rippey conclude : '*D. longissimus* is a synonym of *D. burnupi*';

Opinion of F. Nolf: fig. 43, a & b in Kilburn & Rippey: *D. burnupi* and fig. 43, c & d: *D. prolongatus*

Figures by Kilburn & Rippey (1982)



The opinion of Markus Huber

- Huber (2010) first regarded *D. burnupi* and *D. longissimus* as the same species, and so he consequently degraded the latter to the rank of junior synonym;
- In 2014 he supposed that the *Donax* specimens from Dakhla belonged to a new species, eventually to *Tentidonax burnupi* or to *Capsella variegata*;
- Finally, in 2015, he changed his opinion and he introduced the name *Donax prolongatus* (Turton, 1932) as the correct name for the Western Sahara specimens



Donax (Tentidonax) burnupi
G. B. Sowerby III 1894
S. Africa, 10-80 m; 36 mm; c



Donax (Tentidonax) bertini
H. A. Pilsbry 1901
S.-SE. Africa, 1-10 m; 16.5 mm; o

***Donax burnupi* G.B. Sowerby, 1894**



**Durban, KwaZulu-Natal, RSA – from sand
dredged off The Bluff – depth: 18-20 m**

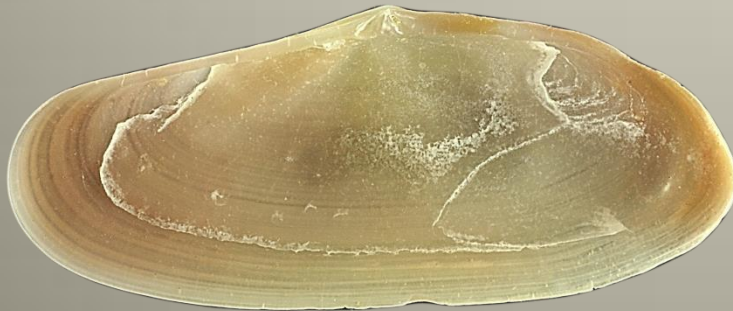
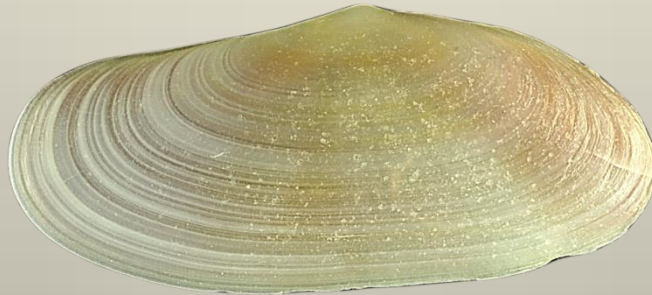


Durban, KwaZulu-Natal, RSA – from sand dredged off The Bluff – depth: 18-20 m



**Durban, KwaZulu-Natal, RSA – from sand
dredged off The Bluff – depth: 18-20 m**

Donax longissimus



Jeffreys Bay, Port Elizabeth, RSA

Due to the efforts of Steve Hubrecht and Alain Ferrant (Belgium), Philippe Poppe (Philippines) and Dai Herbert (KwaZulu-Natal) a lot of specimens of *D. burnupi* from different localities have been gathered, studied and compared with the unknown species. This has resulted in a paper with the following conclusions:

Our opinion (2015)

- *Donax burnupi* and *D. longissimus* are two different species, both live in Western Sahara and South Africa;
- *D. prolongatus* (Turton, 1932) is a junior synonym of *D. burnupi* (G.B. Sowerby III, 1894);
- *D. longissimus* mainly differs from *D. burnupi* by the following characteristics: umbones at 3/5 from the posterior end (different from the 2/5 ratio in *D. burnupi*) and the smooth surface compared to the presence of postero-dorsal sulci in *D. burnupi*.