

# Diatom Flora of the Low Countries

## ***Amphora copulata* (F.T. Kützing) F.R. Schoeman et R.E.M. Archibald 1986.**

**Basionym:** *Frustulia copulata* F.T. Kützing 1833

**Synonym:** ?*Amphora balatonis* Pantocsek 1902

### **Morphology**

Valves semi-lanceolate to semi-elliptical, dorsal smoothly arched, ventral concave. Ends narrowly rounded, very slightly bent ventrally in larger specimens. Axial area narrow, central area small, dorsal elliptical, 'closed' and slightly transapically elongated bordered with short striae close to the dorsal margin; ventrally wider fascia extending to the valve margin. Raphe filiform, proximal raphe endings dorsally bent. Dorsal striae weakly radiate in the middle, becoming more strongly radiate to the valve ends; ventral striae radiate in the middle becoming convergent at the ends always composed of a single elongated areola.

### **Morphometrics**

Source	Length (µm)	Width (µm)	Striae (in 10 µm)	Areolae (in 10 µm)
Own data (n=11)	15.5-37	5-7.7	D: 13-18 V: 12-17	
Levkov, Z. 2009	19-42	5-7.5	D: 14-16 V: 12-14	
Nagumo 2003	28-80	7-16	11-12	

### **Related species**

*Amphora affinis* Kützing (ventral striae composed of two areola, central area trapezoid expanding to the valve margin); *Amphora lange-bertalotii* var. *tenuis* Levkov et Metzeltin (stria density lower, shape central area bordered by longer stria).

### **Distribution**

Brielse Meer noordzijde, Dorpse Beek Epe, Gemaal Galathee aan Mariadijk, Gemaal de Krammerse Polders, Stevensweert aanlegsteiger, Lobith ponton, Hagestein boven sluis, Kuipersveer Oude Maas, Poederoijen Afgedamde Maas (NL); Albertkanaal, Zuidlede, Kanaal Brussel-Schelde, Dender, Molenbeek-Bollaak, Krommedijkbeek, Roobeek, Gentse Binnenwateren, Nieuwe Kale, Wimp, Leie (B)

### **Ecology**

Cosmopolitan. Eutrophic, usually chalk rich waters with an average electrolyte content, oligo- to β-mesosaprobic.

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## Ecological values

Indicator values (Van Dam et al. 1994)

R	H	N	O	S	T	M
4	2	2	2	2	5	1

IPS  
(Cemagref 1982)

IPS-S	IPS-V
4	2

Rott et al. 1997, 1999

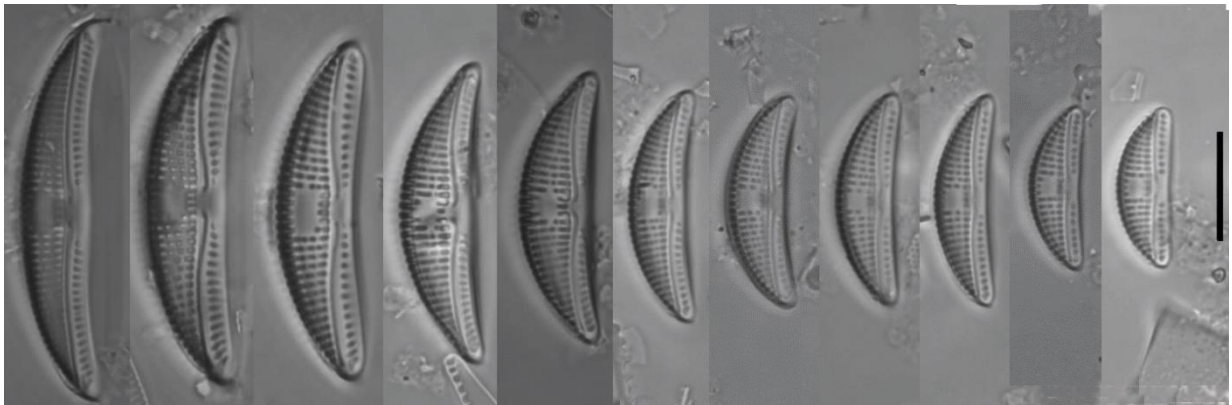
Rott SI s	Rott SI v	Rott TI s	Rott TI v
1.6	2	3.5	5

TDI  
(Kelly & Whitton 1995)

TI-S	TI-V
5	1

## Remarks

The Netherlands



## References:

- Lange-Bertalot, H., G. Hofmann, M. Werum & M. Cantonati (2017) Freshwater Benthic Diatoms of Central Europe.  
Levkov, Z. (2009) *Amphora* sensu lato. Diatoms of Europe 5.  
Nagumo, T. (2003) Taxonomic studies of the subgenus *Amphora*. Bibliotheca Diatomologica Band 49.

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