

# Diatom Flora of the Low Countries

## *Fragilaria deformis* (W. Smith) B. Van de Vijver et L. Ector in B. Van de Vijver, A. Mertens et L. Ector 2020

**Basionym:** *Synedra deformis* W.Sm. 1856

**Synonyms:** *Synedra deformis* W.Sm. 1856 non *Synedra vaucheriae* var. *deformis* Grunow in Van Heurck 1881 (pl. 40, fig. 18); *Synedra vaucheriae* var. *deformis* (W.Sm.) Van Heurck (1896, p. 310, pl. 30, fig. 833).

### **Morphology**

Frustules in girdle view rectangular, solitary never linked to form chains. Valves linear with usually parallel margins, occasionally asymmetrical with one straight and one convex margin. Smaller valves becoming elliptic-lanceolate. Apices clearly protracted, rostrate to occasionally weakly capitate, placed on clearly developed shoulders. Axial area narrow but distinct, linear, gradually but weakly widening towards the central area. Central area asymmetrical due to shortening or absence of striae on one side. Ghost striae often present. Striae parallel near central area becoming weakly radiate towards the apices, often irregularly spaced. Areolae not discernible in LM.

### **Morphometrics**

Source	Length (µm)	Width (µm)	Striae (in 10 µm)	Areolae (in 10 µm)
Own data (n=4)	15.9-19.3	4.7-5.2	14-15	
Van de Vijver et al. 2020	14-29	4.5-5.0	14-16	

### **Related species**

*Fragilaria pectinalis* (O.F.Müll.) Lyngb (more slender outline, shoulders poorly developed, having a more irregular central area lacking ghost striae); *F. candidagilae* Almeida, C.Delgado, Novais & S.Blanco (clearly capitate apices that are more protracted, stria density 12-14 in 10 µm); *F. joachimii* Kahlert (apices shortly rostrate and bluntly rounded lacking typical shoulders; weakly inflated central area)

### **Distribution**

Roer Bonnerskoel, Sliedrechtse Biesbosch (NL); Molenbeek-Bollaak (B).

### **Ecology**

Possible ecological conditions: circumneutral to alkaline, eutrophic, α-mesosaprobic preference.

### **Ecological values**

Indicator values (Van Dam et al. 1994)

R	H	N	O	S	T	M
3	2			3	5	

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IPS  
(Cemagref 1982)

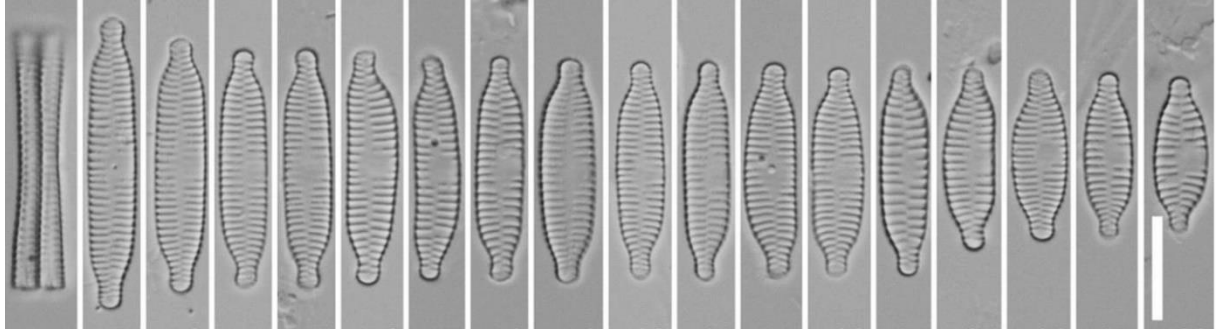
IPS-S	IPS-V
3.4	1

Rott et al. 1997, 1999

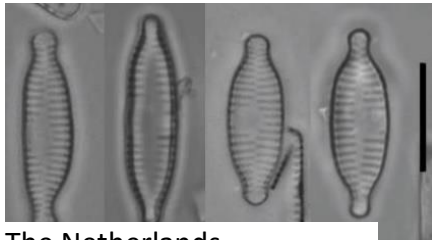
Rott SI s	Rott SI v	Rott TI s	Rott TI v

TDI  
(Kelly & Whitton 1995)

TI-S	TI-V



Type population. Van de Vijver B., Mertens A. & Ector L. (2020)



The Netherlands

**Remarks**

**References:**

- Van de Vijver B., Mertens A. & Ector L. (2020) Analysis of the type material of *Synedra deformis* W. Sm. and *Synedra vaucheriae* var. *deformis* Grunow (Fragilariaceae, Bacillariophyta).
- Van de Vijver, B., A. Mertens, C.E. Wetzel & L. Ector (2021) *Fragilaria capucina* & co.

**Citation:**

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