

# Diatom Flora of the Low Countries

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## ***Navicula lanceolata* (C.Agardh) Ehrenberg 1838**

**Basionym:** *Frustulia lanceolata* C.Agardh 1827

### **Morphology**

Valves lanceolate with bluntly rounded, non-protracted apices. Raphe filiform. Proximal raphe endings deflected to the primary side of the valve. Distal raphe endings hooked to the secondary side. Axial area narrow, linear. Central area rather large, rounded to rectangular and even square. Striae radiate, more convergent near the valve apices. Lineolae discernible in LM.

### **Morphometrics**

source	Length (µm)	Width (µm)	Striae (in 10 µm)	Areolae (in 10 µm)
Own data	31-74	8.5-10.5	11-12	30-35
Krammer & Lange-Bertalot 1986	28-70	(8)9-12	10-13	32
Lange-Bertalot 2001	28-70	(8)9-12	10-13	32
Potapova 2009	30-60	9-12	10-13	32
Hofmann et al. 2011	28-70	8-12	10-13	32

### **Related species**

*Navicula germainii* Wallace (apiculate apices, lower valve width, lower striae density); *Navicula viridula* (Kützing) Ehrenberg (larger, lower striae and areolae density) .

### **Distribution**

Present from the Arctic to the Tropics, one of the most common species in Europe.

### **Ecology**

Clear indicator of eutrophy. Present in eutrophic to hypertrophic water showing a broad ecological spectrum. Present in springs but also in brackish water. Oligo- to α-mesosaprobic. Usually at low temperatures, less present in summer. Known to show winter/spring blooms.

### **Ecological values**

Indicator values (van Dam et al. 1994)

R	H	N	O	S	T	M
4	3	2	3	3	5	3

IPS  
(Cemagref 1982)

IPS-S	IPS-V
3.8	1

Rott et al. 1997, 1999

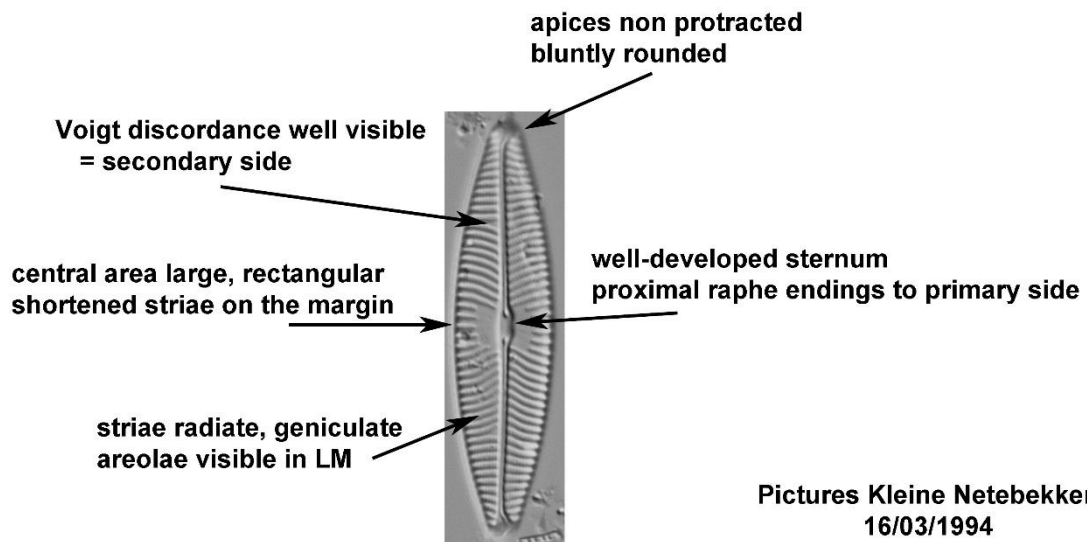
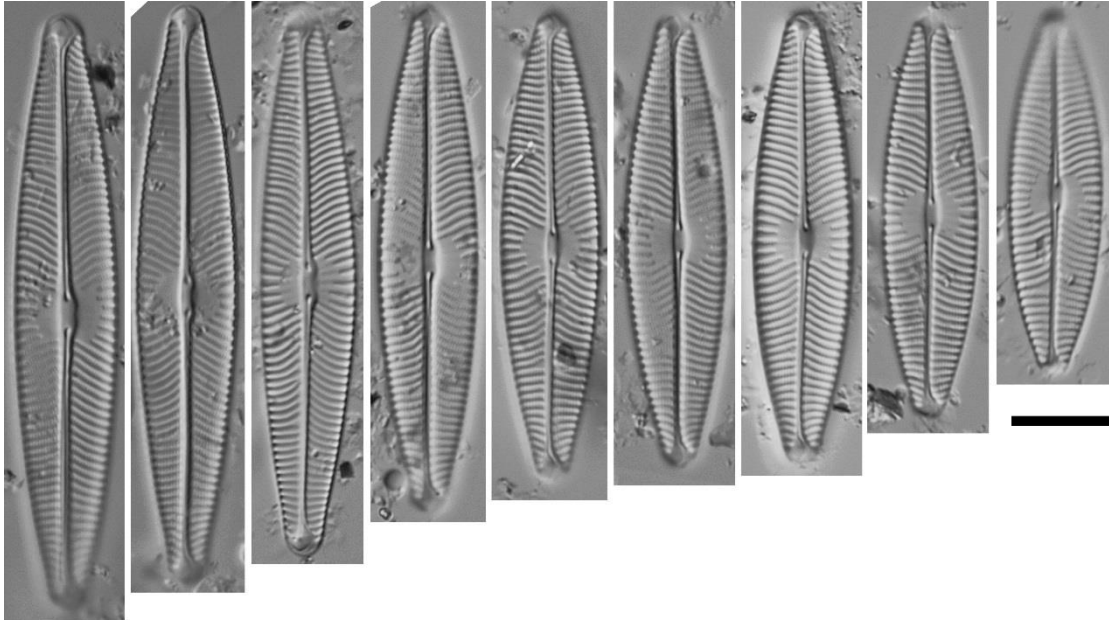
Rott SI s	Rott SI v	Rott TI s	Rott TI v
2.3	3	3.5	4

TDI  
(Kelly & Whitton 1995)

TI-S	TI-V
5	2

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Remarks



## References:

Lange-Bertalot (2001) *Diatoms of Europe 2*: p. 87, figs p. 314

Hofmann et al. (2011) *Diatomeen im Süßwasser-Benthos von Mitteleuropa* p. 387, figs p. 678

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