

Diatom Flora of the Low Countries

Navicula lanceolata (C.Agardh) Ehrenberg 1838

Basionym : *Frustulia lanceolata* C.Agardh 1827

Synonyms : none

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 stria density)

Navicula viridula (Kützing) Ehrenberg (larger, lower stria and areola 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

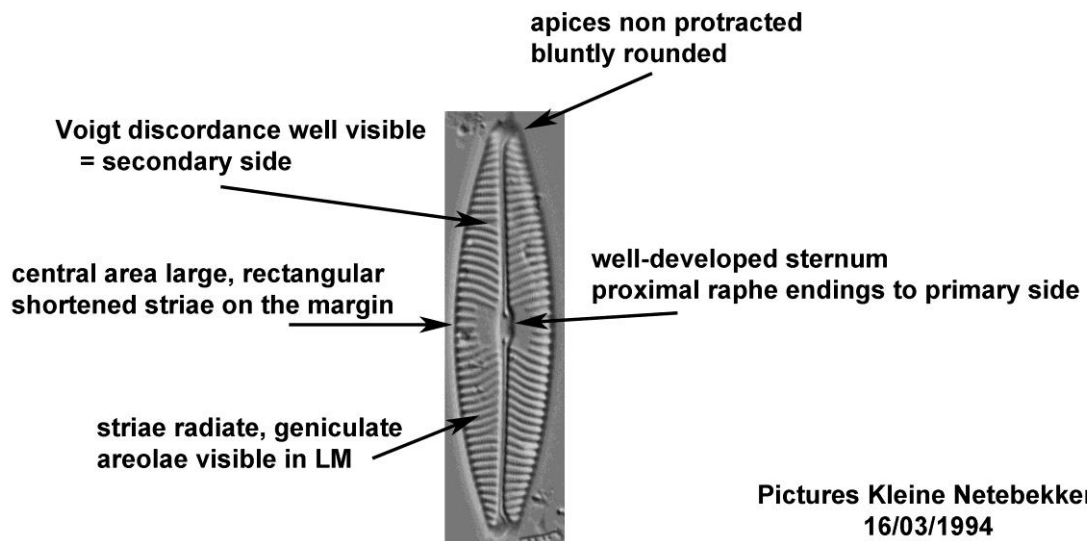
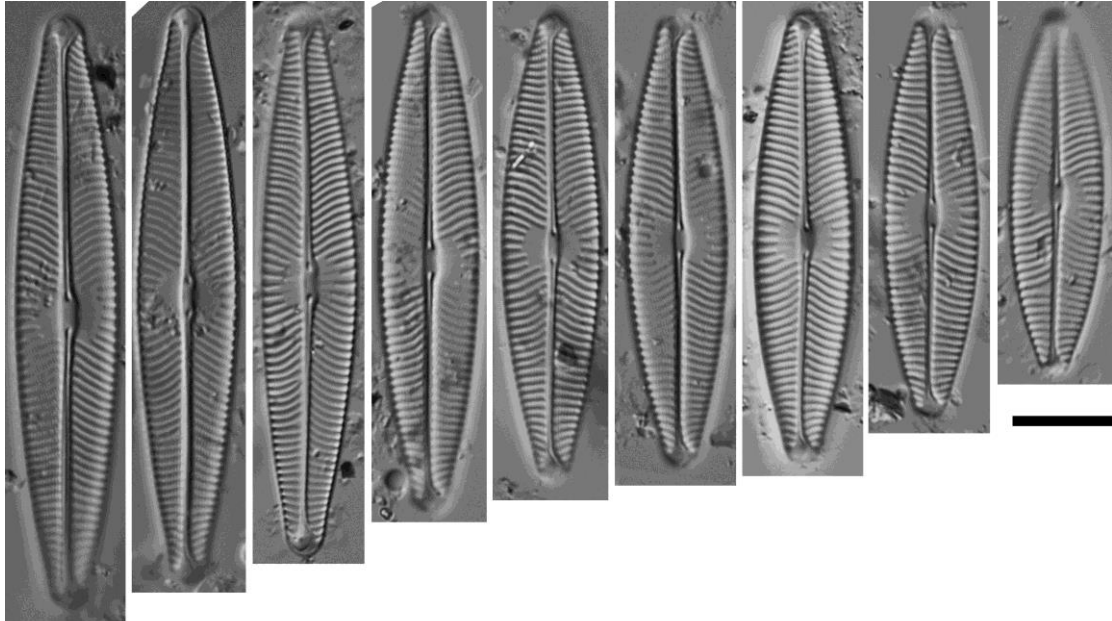
IPS-V	IPS-I
3.8	1.0

TI-index

TI-V	TI-S
4	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