

Diatom Flora of the Low Countries

***Nitzschia fonticola* (A. Grunow) A. Grunow in H.F. van Heurck 1881.**

Synonyms: *Nitzschia fonticola* Grunow 1879; *Nitzschia kuetzingiana* var. *romana* Grunow 1880; *Nitzschia romana* (Grunow) Grunow 1881; *Nitzschia macedonica* Hustedt 1945; *Nitzschia subromana* Hustedt 1954; *Nitzschia manca* Hustedt 1957 pro parte (Iconotypus).

Morphology

Valves more widely to more narrowly lanceolate according to the length, tapering to the shortly protracted rostrate to subcapitate ends. Fibulae short, blocky, two middle ones farther apart than the others. Striae fine but clear.

Morphometrics

Source	Length (µm)	Width (µm)	Striae (in 10 µm)	Fibulae (in 10 µm)
Own data (n=13)	12.6-22	2.8-4.5	26-34	12-16
Lange-Bertalot et al. 2017	7-46	2.5-5.5	24-33	9-14
Tudesque et al. 2008	7-46	2.5-5.5	26-30	10-12
Krammer & Lange-Bertalot 1997-2004	10-65	2.5-5	23-33	9-16
Trobajo et al. 2006	6-67	3-4.5	25-36	10-18

Related species

Nitzschia costei Tudesque, Rimet et Ector (valves linear-lanceolate, less broad, striae density lower 23-27 in 10 µm); *Nitzschia fossilis* (Grunow) Grunow (fibulae sparser 7-9, lower striae density 18-21, areolae clear visible).

Distribution

Kleine Aa, Peelse Loop, Lobith ponton, Hagestein boven sluis, Poederdijk, Afgedamde Maas, Beekbergerwoud, Kampen, Eijsden Boven Maas, Stevensweert aanlegsteiger, Oud Hoenderhoekse Wetering, Sliedrechtse Biesbosch, Brielse Meer, Haven Stellendam (NL) Broenbeek, Martjesvaart, Kanaal Kortrijk-Bossuit, Kottembeek, Ieperleed, Kanaal Bocholt-Herentals, Heulebeek, Oude Mandel, Kanaal Gent-oostende, Mark, Zwartesluisbeek, Vondelbeek, Kottembeek, IJzer, Dender, Zuunbeek (B).

Ecology

Occurs in eutrophic freshwaters with moderately low to high electrolyte content. Tolerates pollution loads up to α -mesosaprobic to polysaprobic levels.

Ecological values

Indicator values (Van Dam et al. 1994)

R	H	N	O	S	T	M
4	2	3	3	4	5	1

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IPS
(Cemagref 1982)

IPS-S	IPS-V
3.5	1

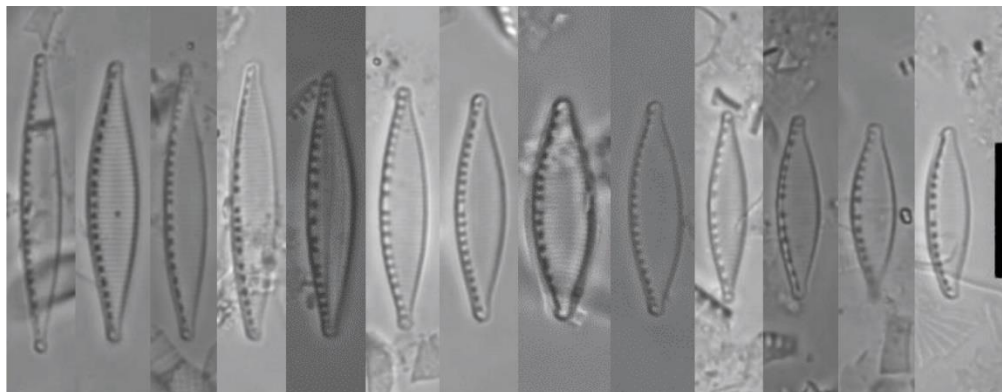
Rott et al. 1997, 1999

Rott SI s	Rott SI v	Rott TI s	Rott TI v
2.1	4	1.9	0

TDI
(Kelly & Whitton 1995)

TI-S	TI-V
4	2

Remarks



The Netherlands

References:

- Krammer, K. & H. Lange-Bertalot (1997-2004) Bacillariophyceae. Süßwasserflora von Mitteleuropa 2/1-4.
- Lange-Bertalot, H., G. Hofmann, M. Werum & M. Cantonati (2017) Freshwater Benthic Diatoms of Central Europe.
- Trobajo, R., D.G. Mann, V.A. Chepurinov, E. Clavero et E.J. Cox (2006) Taxonomy, life cycle, and auxosporulation of *Nitzschia fonticola* (Bacillariophyta).
- Tudesque, L., F. Rimet & L. Ector (2008) A new taxon of the section *Nitzschiae lanceolatae* Grunow: *Nitzschia costei* sp. nov.

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