

Planothidium victori P.M. Novis, J. Braidwood et C. Kilroy 2012.

Synonyms: *Achnanthes rostrata* var. *magna* F.Straub in Straub (1985, p. 139, pl. 10, fig. 142; pl. 11, fig. 142b); – *Achnanthes lanceolata* var. *magna* (F.Straub) Lange-Bertalot in Krammer & Lange-Bertalot (1991, p. 79, as “*Achnanthes lanceolata* subsp. *frequentissima* var. *magna*”, nom. inval.); – *Achnanthes lanceolata* var. *magna* (F.Straub) Lange-Bertalot in Lange-Bertalot (1993, p. 5, as “*Achnanthes lanceolata* subsp. *frequentissima* var. *magna*”, nom. inval.); – *Achnantheiopsis frequentissima* var. *magna* (F.Straub) Lange-Bertalot in Lange-Bertalot (1997, p. 207); = *Planothidium frequentissimum* var. *magnum* (F.Straub) Lange-Bertalot in Lange-Bertalot (1999, p. 282); = *Planothidium caputium* J.Zimmermann et R.Jahn in Zimmermann et al. (2014, p. 16, fig. 4.3a–h).

Morphology

Valves narrowly lanceolate to weakly elliptic–lanceolate with convex margins and only weakly protracted, broadly rounded apices (never capitate). RLV: axial area very narrow, straight linear. Central area with a clear horseshoe–shaped spot with a cavum. On the opposite side almost reaching the hors-shoe spot. Striae weakly radiate throughout the entire valve. RV: axial area narrow, linear, widening near the central area. Central area transversely rectangular to slightly elliptic, bordered on each side by two, occasionally three, shortened striae. Raphe branches straight with expanded, drop–like proximal raphe endings. Terminal raphe fissures unilaterally deflected. Striae radiate throughout.

Morphometrics

Source	Length (µm)	Width (µm)	Striae (in 10 µm)	Areolae (in 10 µm)
Own data (n=3)	12.8-15.9	4.8-5.4	14	
Wetzel et al. 2019	4.5-19.5	4.0-5.5	RL:14-18 RV: 14-17	
Jahn et al. 2017	5.1-24.6	3.6-7.3	11.5-17	

Related species

Planothidium frequentissimum (Lange-Bertalot) Lange-Bertalot (rhombic–lanceolate valve outline and a wider axial area, striae opposite cavum longer); *P. alekseevae* Gogorev et Lange (broad rostrate apices)

Distribution

Lobith ponton, Beekbergerwoud, Sloot Landgoed Marquette Heemskerk, Aa Noord-Brabant, Haringvliet-Oost, Beken & Sprengen Veluwe, Poldersloot Garijp, Schipsloot Wolvega, Stadsgracht Sloten (NL); Holvenloop, Kattebeek, Stampkotbeek-Molenbeek, Munsterbeek, Boerekreek, Leebeek, Winterbeek Bilzen, Voer Leuven (B).

Ecology

Slow running waters with medium to high conductivity. Eutraphentic and tolerating pollution (α-mesosaprobic). Sensitive for contamination with heavy metals.

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Ecological values

Indicator values (Van Dam et al. 1994)

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

IPS
(Cemagref 1982)

IPS-S	IPS-V
3.8	1

Rott et al. 1997, 1999

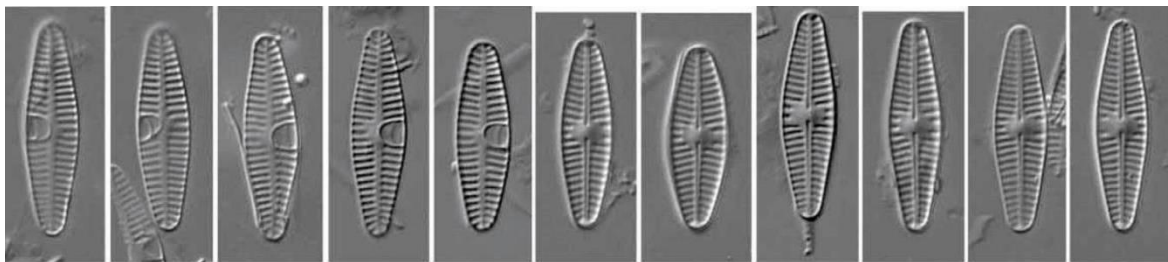
Rott SI s	Rott SI v	Rott TI s	Rott TI v
2.5	0	2.8	3

TDI
(Kelly & Whitton 1995)

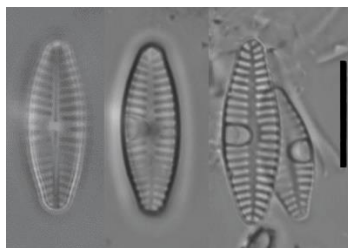
TI-S	TI-V

Remarks

Epitype in Jahn et al. 2017



The Netherlands



References:

Jahn, R., N. Abarca, B. Gemeinholzer, D. Mora, O. Skibbe, M. Kulikovskiy, E. Gusev, W-H. Kusber, & J. Zimmermann (2017): *Planothidium lanceolatum* and *Planothidium frequentissimum* reinvestigated with molecular methods and morphology: four new species and the taxonomic importance of the sinus and cavum. *Diatom Research* 32: 75–107.
<https://doi.org/10.1080/0269249X.2017.1312548>

Novis, P.M., Braidwood, J. & Kilroy, C. (2012): Small diatoms (Bacillariophyta) in cultures from the Styx River, New Zealand, including descriptions of three species. *Phytotaxa* 64: 11-45

Van de Vijver, B., L. Ector et C.E. Wetzel (2019) Taxonomic Diatom Workshop *Planothidium*.

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Wetzel, C., B. Van de Vijver, S. Blanco & L. Ector (2019) On some common and new cavum-bearing *Planothidium* (Bacillariophyta) species from freshwater. *Fottea*, Olomouc, 19(1): 50–89

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