

Diatom Flora of the Low Countries

Navicula cryptocephala Kützing 1844

Basionym : *Navicula cryptocephala* Kützing 1844

Synonyms : *Navicula cryptocefalsa* Lange-Bertalot 1993

Morphology

Valves (narrowly) lanceolate to rhombic-lanceolate with gradually narrowing, protracted to weakly rostrate apices. Raphe filiform. Proximal raphe endings almost straight to weakly deflected to secondary side. Axial area (very) narrow, linear. Central area small to moderately large, round to elliptical. Striae strongly radiate, more convergent near the valve apices. Lineolae not discernible in LM.

Morphometrics

| source | Length (µm) | Width (µm) | Striae (in 10 µm) | Areolae (in 10 µm) |
|---------------------------------|-------------|------------|-------------------|--------------------|
| Own data | 24-36 | 6-7 | 16-17 | >35 |
| Krammer & Lange-Bertalot (1986) | 20-40 | 5-7 | 14-17 | c. 40 |
| Lange-Bertalot (2001) | 20-40 | 5-7 | 14-18 | c. 40 |
| Potapova (2009) | 21-34 | 5.2-6.5 | 15-17 | c. 35 |
| Hofmann et al. (2011) | 20-40 | 5-7 | 14-18 | c. 40 |

Related species

Navicula exilis Kützing (lower stria density, smaller central area, broader apices)

Navicula cryptofallax Lange-Bertalot & Hofmann (lower valve width, lower stria density, smaller central area, more (sub)capitate apices)

Distribution

Widespread, one of the most common species in Europe.

Ecology

Present in eutrophic to polytrophic water

Moderate to higher electrolyte contents

Circumneutral to weakly alkaline

Tolerant for higher levels of saprobity (up to β - α -mesosaprobic)

Ecological values

Indicator values (van Dam et al. 1994)

| R | H | N | O | S | T | M |
|---|---|---|---|---|---|---|
| 3 | 2 | 3 | 3 | 3 | 7 | 2 |

IPS

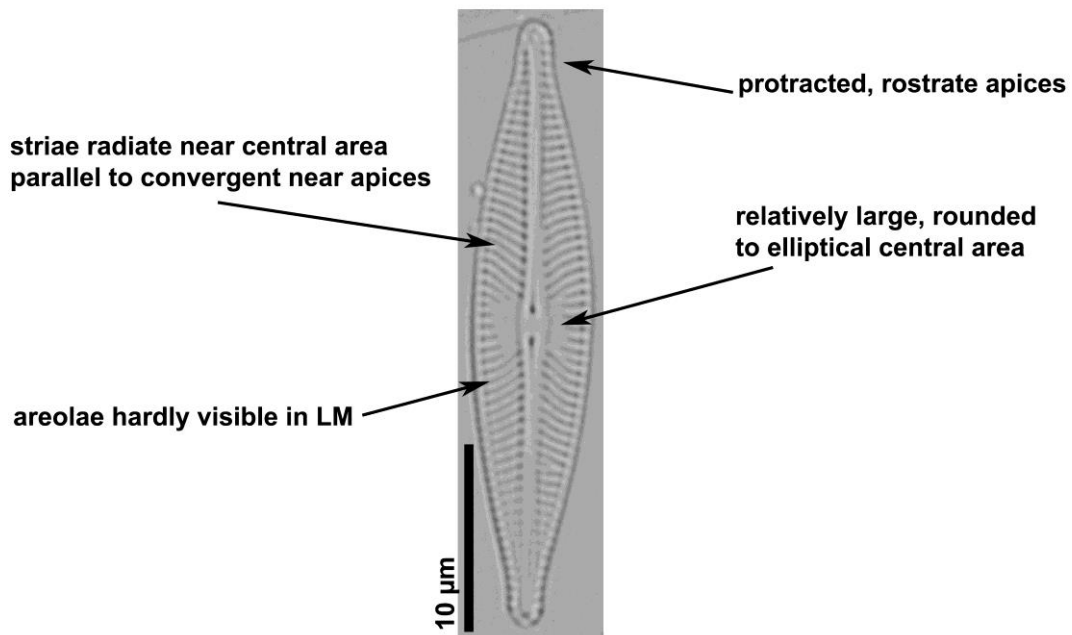
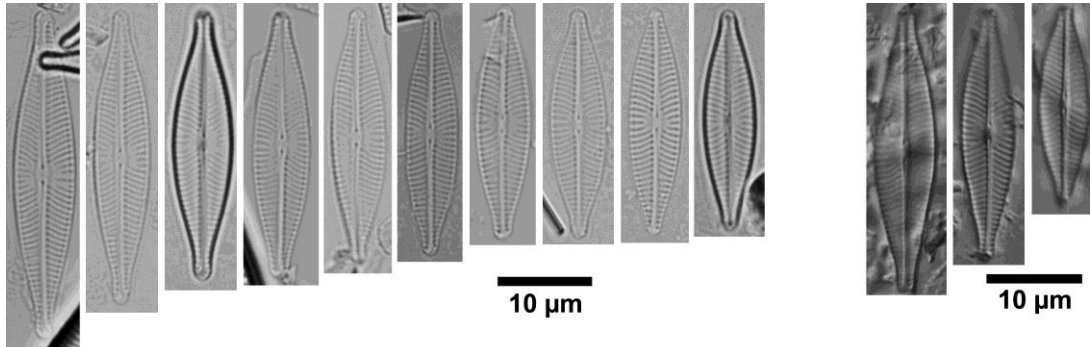
| IPS-V | IPS-I |
|-------|-------|
| 3,5 | 2 |

TI-index

| TI-V | TI-S |
|------|------|
| 4 | 1 |

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Remarks



Oude Strijper Aa (NL)
02/06/1982

Type material
sample 209 Kützing coll.

References:

- Lange-Bertalot (2001) *Diatoms of Europe 2*: p. 27, figs p. 270, 272
Hofmann et al. (2011) *Diatomeen im Süßwasser-Benthos von Mitteleuropa* p. 377, figs p. 664