

# Diatom Flora of the Low Countries

## *Luticola frequentissima* Z. Levkov, D. Metzeltin et A. Pavlov 2013.

**Basionym:** *Luticola frequentissima* Z. Levkov, D. Metzeltin et A. Pavlov 2013

**Synonym:** none

### **Morphology**

Valves more or less asymmetrical, lanceolate, rhombic-lanceolate to elliptic with rounded ends. Axial area narrow, linear, weakly expanded near the central area, which is wide, slightly asymmetrical, bow-tie shaped, bordered by 3-4 isolated round areolae on both sides of the valve margin. Isolated areola on stigma side larger. One round stigma in central area close to valve margin. Raphe straight to slightly curved. Proximal raphe endings short, hook-shaped towards stigma, distal raphe fissures long and hooked to same side as proximal endings. Striae punctate, strongly radiate throughout. Areolae round to elongated, close to margin larger.

### **Morphometrics**

| Source             | Length (µm) | Width (µm) | Striae (in 10 µm) | Areolae (in one stria) |
|--------------------|-------------|------------|-------------------|------------------------|
| Own data (n=11)    | 9.2-15.6    | 5.6-7.2    | 20-24             | 4-6                    |
| Levkov et al. 2013 | 12-27       | 6.5-9.0    | 20-24             | 4-6                    |
|                    |             |            |                   |                        |

### **Related species**

*Luticola mutica* (Kützing) Mann (central area much smaller, coarser striae composed of 3 elongated areolae, brackish water species).

### **Distribution**

Type location River Vardar, Demir Kapija, Macedonia;  
Strijper Aa-gebied, Oude Maasje, Keizersveer Bergsche Maas, Dommel, Zuider kanaal Sprang Capelle, Zwaluwse haven, Lek bij Jaarsveld, Kuipersveer Oude Maas, Haringvliet Oost (NL); Ophasseltbeek, Lokanaal, Visbeek, Kalkenvaart, Leie (B).

### **Ecology**

Occurs in eutrophic,  $\alpha$ -mesosaprobic freshwater habitats.

### **Ecological values**

Indicator values (Van Dam et al. 1994)

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

IPS  
(Cemagref 1982)

| IPS-S | IPS-V |
|-------|-------|
| 2     | 2     |

Rott et al. 1997, 1999

| Rott SI s | Rott SI v | Rott TI s | Rott TI v |
|-----------|-----------|-----------|-----------|
| 2         | 3         | 2.9       | 1         |

TDI  
(Kelly & Whitton 1995)

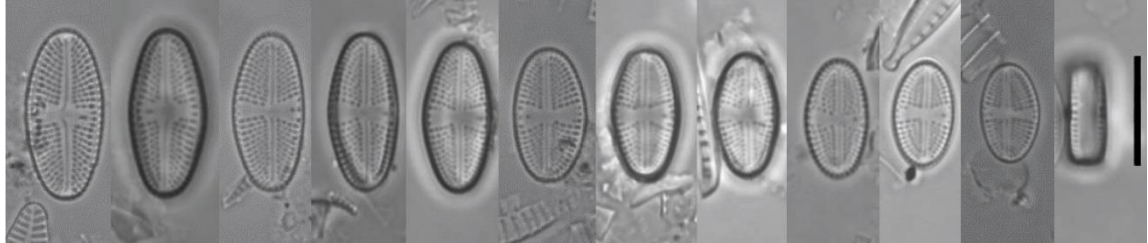
| TI-S | TI-V |
|------|------|
| 5    | 2    |

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### Remarks

*L. mutica* in Lange-Bertalot et al. (2017) is *L. frequentissima*.



The Netherlands

### References:

Lange-Bertalot, H., G. Hofmann, M. Werum & M. Cantonati (2017) Freshwater Benthic Diatoms of Central Europe.

Levkov, Z., D. Metzeltin & A. Pavlov (2013) *Luticola* and *Luticolopsis*. Diatoms of Europe 7.

### Citation:

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