Sellaphora lundii **nom. et stat. nov. (Bacillariophyta), a forgotten European terrestrial species**

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Navicula heufleriana var. *minor* was described by Lund (1946: 73, fig. 6 I, J; here reproduced as Figs 1, 2) as being "present in an enriched sample from an allotment soil", Selly Oak, Birmingham, England. Terrestrial environments are not often sampled and studied in detail for diatom populations; this may be the reason why Lund's variety has been largely ignored in the scientific literature. To date we could not find any citation of this variety other than the original publication and in British check-lists.

While observing diatoms from terrestrial environments in Luxembourg (Antonelli *et al.* 2017), we came across populations of a diatom species initially identified as *Sellaphora* sp. 1 that was eventually identified with *N. heufleriana* var. *minor*. Observations in light (LM) (Figs 3-7) and scanning electron microscopy (SEM) (Figs 8-15) showed that the elliptical valves, centrally inflated but decreasing sharply in width towards the rostrate to weakly capitate apices and thus agreeing with descriptions provided by Lund (1946) of the English material.

Lund (1946) observed that his new variety was unlikely to belong a group of species related to *Navicula heufleriana* (Grunow) Cleve [≡ *Luticola heufleriana* (Grunow) D.G.Mann] based on the less coarse areolation. Indeed, the illustrations of *Luticola heufleriana* by Levkov *et al.* (2013: pl. 166: figs 17-23) proves to be a distantly related taxon. We have concluded that *Navicula heufleriana* var. *minor* does not belong to the genus *Luticola* D.G.Mann in Round *et al.* (1990) as it lacks the unique type of stigma characteristic of *Luticola*, and this is therefore not an appropriate home for Lund's variety.

Navicula heufleriana var. *septentrionalis* Hustedt, a purported taxonomic synonym of *Sellaphora elorantana* (Lange-Bertalot) C.E.Wetzel (Wetzel *et al.* 2015: 226) [≡ *Eolimna elorantana* (Lange-Bertalot) Lange-Bertalot & Kulikovskiy (Kulikovskiy *et al.* 2010: 80, figs 19-36) seems to be another unrelated taxon, thus we also propose raising Lund's variety to species rank.

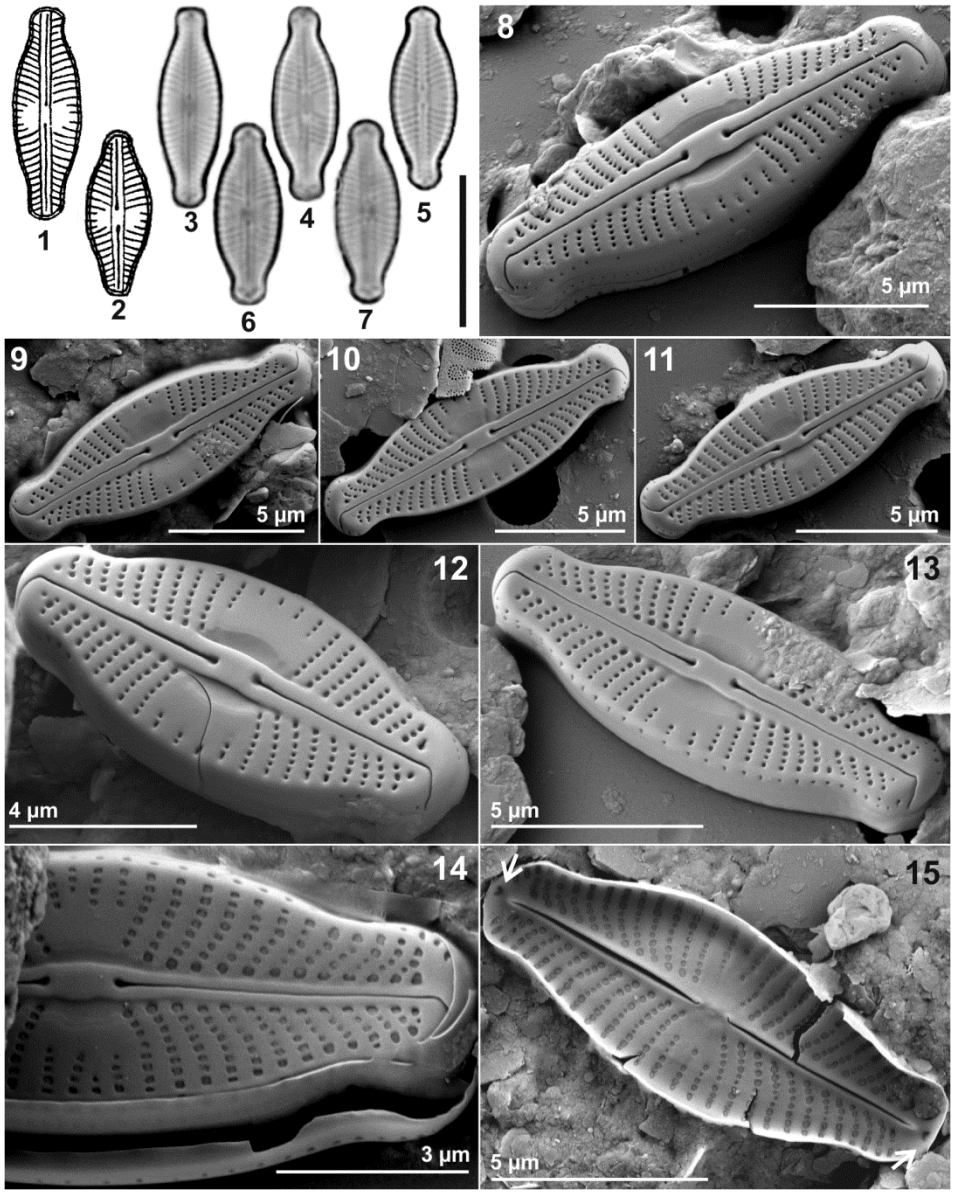
As a matter for further comparative studies, similar species may be *Sellaphora sardiniensis* Lange-Bertalot *et al*. (Lange-Bertalot *et al*. 2003: 122, pl. 19: figs 1-9, pl. 20: figs 1-5) described from dried ponds in Sardinia (aerophytic species) and *Sellaphora hustedtii* (Krasske) Lange-Bertalot & Werum (Werum & Lange-Bertalot 2004: 173, pl. 31: fig. 14), originally collected from freshwater near Kasel (Krasske 1923: 198, fig. 3, as *Navicula hustedtii*). Both differ in general aspects of valve outline and striation, despite having similar dimensions.

Based on the ultrastructural analysis of terrestrial material from Luxembourg observed by us we propose the following nomenclatural and taxonomic change:

***Sellaphora lundii* C.E.Wetzel, Barragán & Ector nom. et stat. nov.**
Basionym: *Navicula heufleriana* var. *minor* J.W.G.Lund, 1946, *New Phytologist* 45, p. 73, fig. 6 I, J.

Lectotype (here designated): fig. 6 I, J in Lund (1946), here reproduced as Figs 1, 2 (a holotype was not designated by Lund).

Eponymy: Named for John Walter Guerrier Lund (1912-2015), English phycologist and ecologist, the original discoverer of this species.



Figures 1-15: *Sellaphora lundii* nom. et stat. nov. Figs 1, 2. **Lectotype**. Original drawings of *Navicula heufleriana* var. *minor* J.W.G.Lund. Figs 3-7. Light microscope image showing elliptical valves that are centrally inflated and decrease sharply in width towards the rostrate to weakly capitate apices. Central area extends and is rectangular to oblong and striae are radial, curved and faintly punctate (usually five shorter striae). Figs 8-15. SEM images of a population collected from soil (grasslands) in Luxembourg (Useldange, Attert River catchment). Figs 8-14. External view showing the presence of conopeal grooves alongside the raphe and striae variability at the central area. Fig. 15. Internal view showing the rounded apical pit present at both apices; this is usually closed externally. Reduced silica polar bars are also apparent (white arrows).

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