Transfer of *Navicula pseudolagerstedtii* Cholnoky to *Geissleria* Lange-Bertalot & Metzeltin (*Gomphonemataceae*, Bacillariophyta)

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The diatom genus *Geissleria* Lange-Bertalot & Metzeltin (1996: 63) is represented by 79 species and three infraspecific taxa of which 43 have been flagged as currently accepted taxonomically (Guiry & Guiry 2019). Although many of these taxa have been transferred to a range of genera such as *Baikalia* Bukhtiyarova & Pomazkina (Bukhtiyarova & Pomazkina 2013), *Navigeia* Bukhtiyarova (Bukhtiyarova & Pomazkina 2013), *Placogeia* Bukhtiyarova (Bukhtiyarova & Pomazkina 2013) and *Grachevia* Bukhtiyarova (Bukhtiyarova & Pomazkina 2013), we are in favour of retaining the genus *Geissleria* as circumscribed by Lange-Bertalot & Metzeltin (1996: 63) unless molecular studies provide evidence to the contrary.

African diatom material is seldom incorporated in taxonomic studies. There are several reasons for this: less material was collected as compared to Europe, the United Kingdom and the United States of America. In addition, collecting biological material is not easy in many central African countries due to difficulty of access and political instability. During an investigation of material from the Democratic Republic of the Congo and Zambia several taxa belonging to the genus *Geissleria* were observed (e.g., Cocquyt *et al.* 2019). While attempting to identify these specimens we noted a species described as *Navicula pseudolagerstedtii* by Cholnoky (1960: 75, fig. 236). This taxon clearly belongs to the genus *Geissleria* as it has the characteristic annulus structure typical of the genus, which was observed by Cholnoky and incorporated in his description. He described this structure as three strongly elongated areolae near the apex separated from the other striae by a transapical rib parallel to the raphe. A scan of the original pencil drawing made by Cholnoky is given here as Fig. 1. Cholnoky (1960: 75) described the following morphological characteristics: valves broad lanceolate, with wide and clearly protracted poles; length 13-18 µm and width 6-7 µm. Raphe straight, filiform. Axial area narrow linear, central area irregularly demarcated and bordered by 3 shortened striae on each side of which some may be missing altogether. Striae always strongly radiate, about 15 in 10 µm. Re-investigation of an original slide (NIWR 193/3860) in the, South African National Diatom Collection (**SANDC**) showed that this taxon is rare with only a single valve being observed (Fig. 2), this valve conforms with the dimensions given by Cholnoky (1960: 75, fig. 236).

When the name *Navicula pseudolagerstedtii* was introduced by Cholnoky (1960: 75) the words "type", "typus", "holotype" or "holotypus" were not included, but this was not a requirement for validity until 1 January 1990 (Art. 40.6, Turland *et al*. 2018). However, after 1 January 1958, indication of type (Art. 40.1) is required but this "…can be achieved by reference to an entire gathering,…" (Art. 40.2, Turland *et al*. 2018). In this instance, a single collection "Eshowe-Melmoth 285" is given (Cholnoky 1960: 75), which is sufficient to meet the requirements of Art. 40. Unfortunately, to our knowledge, unprepared original material no longer exists of this sample.

Geissleria pseudolagerstedtii (Cholnoky) J.C.Taylor & Cocquyt, *comb. nov.* (Figs 1, 2)
Basionym: *Navicula pseudolagerstedtiii* Cholnoky *Nova Hedwigia* 2(1/2): 75, fig. 236, 1960.
Holotype: NIWR 193/3860 (**SANDC**!)
Type locality: Eshowe-Melmoth (Umlazi River), Kwa-Zulu Natal (Tugela 285), South Africa.

Etymology: Presumably referring to the taxon being distinguishable from *Navicula lagerstedtii* Cleve.

Distribution: In addition to the original report from Kwa-Zulu Natal, the taxon has also been reported from Sierra Leone by Carter & Dennis (1982: 311). The valves as depicted by Carter & Dennis (1982: pl. 4 figs 144-149) indicate the genus *Geissleria*. However, the variability in valve shape suggests a complex of several taxa needing further in-depth investigation.

Registration: http://phycobank.org/101400

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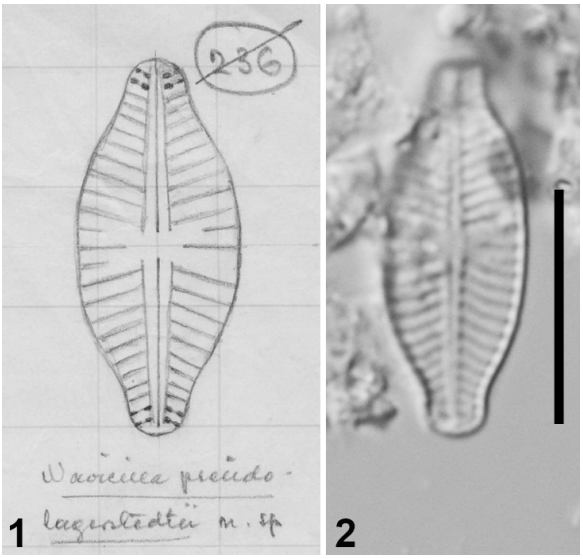

Figs 1, 2. *Geissleria pseudolagerstedtii* (Cholnoky) J.C.Taylor & Cocquyt, *comb. nov.* Fig. 1. Original drawing of *Navicula pseudolagerstedtii* by Cholnoky, kept at the South African National Diatom Collection, housed at the North-West University, South Africa. Each quadrant corresponds with a square of 5 x 5 µm. Fig. 2. Valve from the type slide NIWR 193/3860. Scale bar Fig. 2 = 10 µm.