Gomphonema olivaceoides var. hutchinsoniana

Patrick 1971



Category	Asymmetric Biraphid	Genus Considered Gomphoneis
Length Range	18.4-23.4 µm	
Width Range	5.5-6.1 µm	
Striae in 10 µm	11.7-14.3	
Contributor Reviewer	Gina LaLiberte - Apr 2017 Sarah Spaulding - Aug 2018	

Identification

Original Description Autecology

Citations & Links

Compare

Identification



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Description

Valves are clavate with broadly subrostrate to subcapitate headpoles and capitate footpoles. The axial area is linear and narrow. The central area is a transverse rectangle, formed by 1 to 3 shortened striae on each side of the valve. The 4 longest striae bordering the central area have an isolated stigmoid on the ends closest to the proximal raphe

ends. The raphe is filiform, with the proximal ends slightly inflated and deflected to the secondary side of the valve. The striae are radiate, transitioning to parallel at the head pole and strongly radiate at the foot pole.

Autecology

This variety was originally described from Pennsylvania (Patrick 1971). Since then, it has been found in Maine (images on this page) and has been reported in southeast rivers (Bishop et al. 2017).

Motility	Slightly motile	
Attachment	Vertical	
Habitat	Benthic	
Colony	Colonies common	
Occurrence	Rare	
Waterbody	Rivers Lakes	
Distribution	Southeast rivers 2014	



Credit: Gina LaLiberte

Size diminution in one population from Maine (ANSP GC 112789).

Original Description

Valve lanceolate with narrowed rostrate to distinctly capitate apex and

Patrick 1971

capitate base. Axial area linear, narrow, at the central area the margins of the axial area are marked by 4 puncta. Central area transverse with 1 or 2 shortened striae on each margin of the valve. Raphe linear, not extending or only slightly extending into the central area. Striae radiate throughout the valve, indistinctly punctate. Striae, 13-14 in 10 μ. Length, 15-18 μ. Breadth, 5-6 μ.

Length Range	15-18 µm
Width	5-6 µm
Striae in 10µm	13-14

Original Images



Gomphonema olicaceoides var. hutchinsoniana var. nov.

Valva lanceolata, apice anguste rostrata vel distincte capitata, basi capitata. Area axialis angusta, punctis quattuor areae centralis ad margines praesentibus. Area centralis transversa, striis singulis vel duobus brevibus ad quemque marginem valvae. Raphe linearis, in aream centralem non aut leviter extendens. Striae per totam val-vam radiatae, indistincte punctatae. Striis, 13-14 in 10 μ . Longitudo, 15-18 μ . Latitudo, 5-6 µ.

Valve lanceolate with narrowed rostrate to distinctly capitate apex and capitate base. Axial area linear, narrow, at the central area the margins of the axial area are marked by 4 puncta. Central area transverse with 1 or 2 shortened striae on each margin of the valve. Raphe linear, not extending or only slightly extending into the central area. Striae radiate throughout the valve, indistinctly punc-tate. Striac, 13–14 in 10 $\mu.$ Length, 15–18 μ. Breadth, 5-6 μ. This taxon differs from all other varie-

tics of this species by the narrow rostrate to capitate apex. The invalidly published *G. olioaceoides* var. *cochleariformis* Manguin has also a capitate basis, but this character is not found in the other varieties. The present taxon seems to be most closely related to that invalidly published taxon. This variety is named in monor of rio-

fessor G. Evelyn Hutchinson, whose help-ful comments and criticisms have aided in the production of many of my scientific contributions.

Citations & Links

Citations

Bishop, I.W., Esposito, R.M., Tyree, M. and Spaulding, S.A. (2017) A diatom voucher flora from selected southeast rivers (USA). Phytotaxa 332 (2): 101-140.

Publication Link: 10.11646/phytotaxa.332.2.1

Patrick, R. (1971) The effects of increasing light and temperature on the structure of diatom communities Limnology and Oceanography 16 (2):405-421

Links

North American Diatom Ecological Database NADED ID: 37075

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Guide to Gomphonema olivaceoides var. hutchinsoniana

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2 Headpole subrostrate to subcapitate

3 Footpole capitate

4 Four isolated stigmoids bordering central area