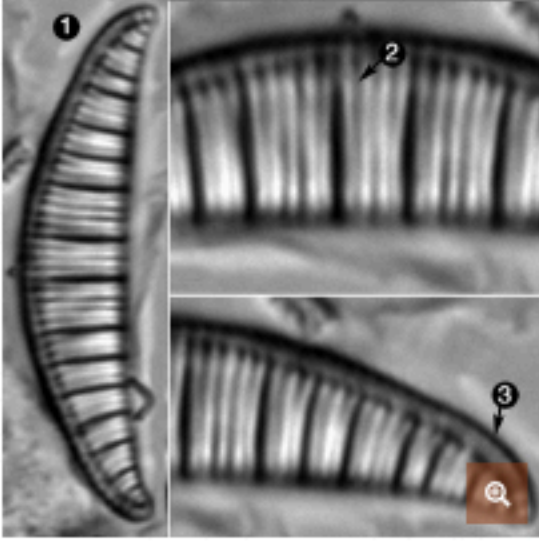


Rhopalodia gibberula

(Ehrenb.) O.Müll. 1895



Category	Epithemioid
Length Range	26.5-42.5 µm
Width Range	5-9.5 µm
Striae in 10 µm	12-23 (ventral)

Contributor Elaine Jordan - Jun 2015

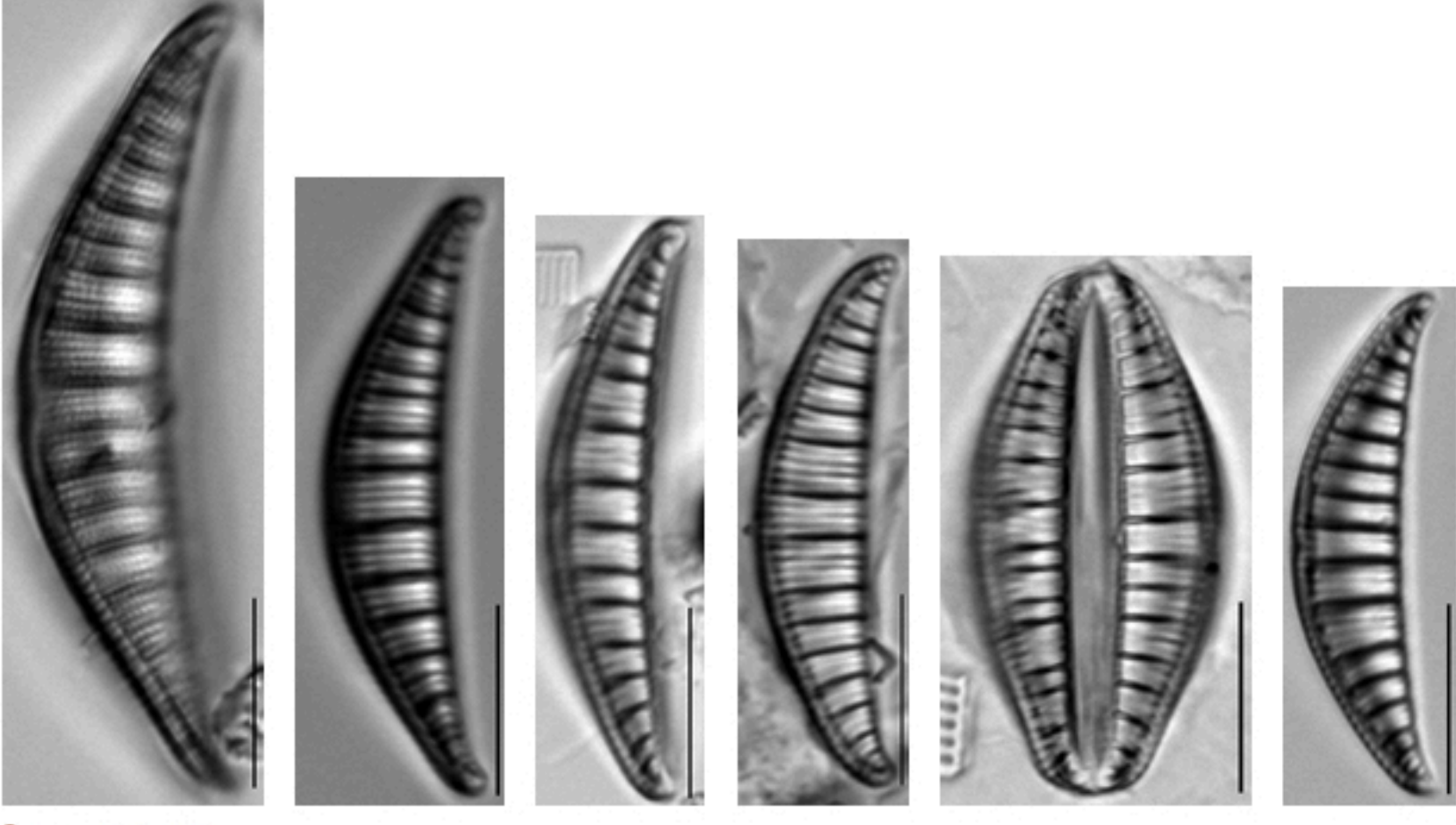
Reviewer Loren Bahls - Oct 2015

Synonyms

Epithemia gibberula (Ehrenb.) Kütz. 1844

Identification

Identification



[View image metadata](#)

Description

Valves are lunate, with strongly convex dorsal margins that are often slightly notched in the middle. The ventral margin is slightly concave to straight. In girdle view, frustules are widely lanceolate to elliptical and the width ranges from 11-16.5 µm. The apices can be slightly bent ventrally or may be protracted and rounded. The raphe is positioned on the dorsal margin. The transapical costa density ranges from 4-7 in

10 µm on the ventral margin, with 2-6 striae in between each costa. Costae are parallel at the valve center to slightly slightly radiate toward the apices.

Patrick and Reimer (1975) report valve lengths up to 70 µm.

Autecology

Rhopalodia gibberula was found in a benthic periphyton mat in Silver Lake Fen and in epipelion in moist soil of Excelsior Fen, both of Dickinson County, Iowa. This taxon has also been reported from California, Idaho, Montana, North Dakota, South Dakota, and Wyoming (Bahls 2009), as well as in saline lakes in western North America (Blinn 1993). The range of conductivity where it has been reported is wide, from low to moderately high conductivity (Patrick and Reimer 1975). *Rhopalodia gibberula* has also been found in silty and sandy marshes and identified along four different intertidal zones of southern Oregon (Nelson and Kashima 1993). In addition, *Rhopalodia gibberula* septae are commonly found in fossil records because they are heavily silicified (Fritz et al. 1999).

Rhopalodia species are known to grow in nitrogen-poor habitats because they are hosts to endosymbiotic cyanobacteria, which fix atmospheric nitrogen.

Size Range, µm3	101-1000
Motility	Moderately motile
Attachment	Prostrate
Habitat	Moist habitats Benthic
Colony	Solitary
Nitrogen Fixer	Yes
BCG	BCG 3
Distribution	Western EMAP California

[Learn more about this >](#)



Credit: USGS BioData

Distribution of *Rhopalodia gibberula* in rivers of the continental U.S. based on the National Water Quality Assessment program. Retrieved 03 June 2015.



Credit: USGS BioData

Distribution of *Rhopalodia gibberula* in rivers of Alaska based on the National Water Quality Assessment program. Retrieved 03 June 2015.



Credit: USGS BioData

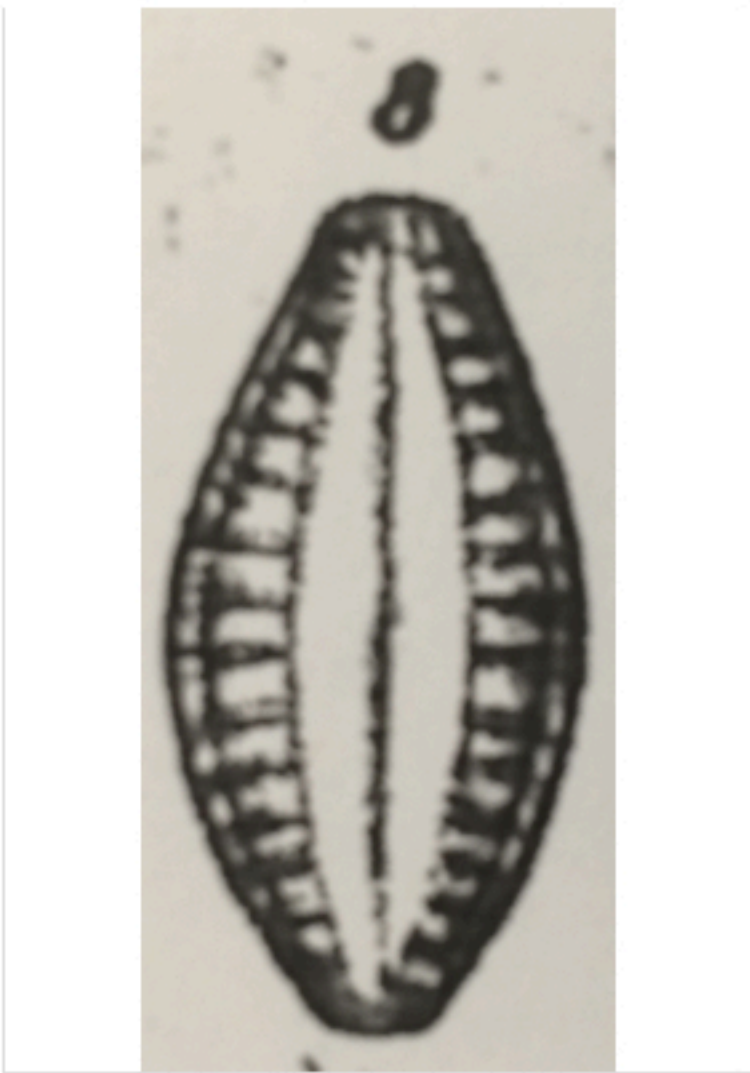
Distribution of *Rhopalodia gibberula* in rivers of Hawaii based on the National Water Quality Assessment program. Retrieved 03 June 2015.

Original Description

E. gibberula, punctato-striata parva, dorso late elato, apicibus leviter re-volutis constrictis. *Icon?*

Basionym	Eunotia gibberula
Author	Ehrenb. 1843

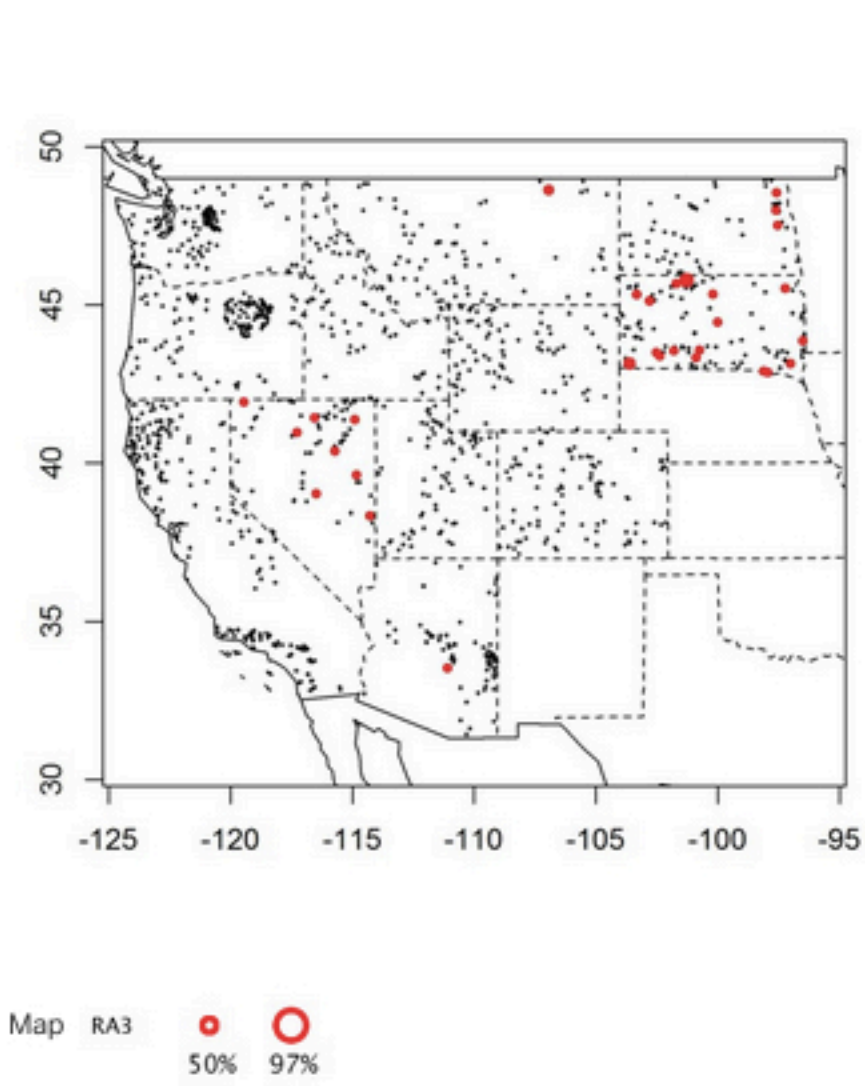
Original Images



78 *E. gibberula*, punctato-striata parva, dorso late elato, apicibus leviter re-volutis constrictis. *Icon?*

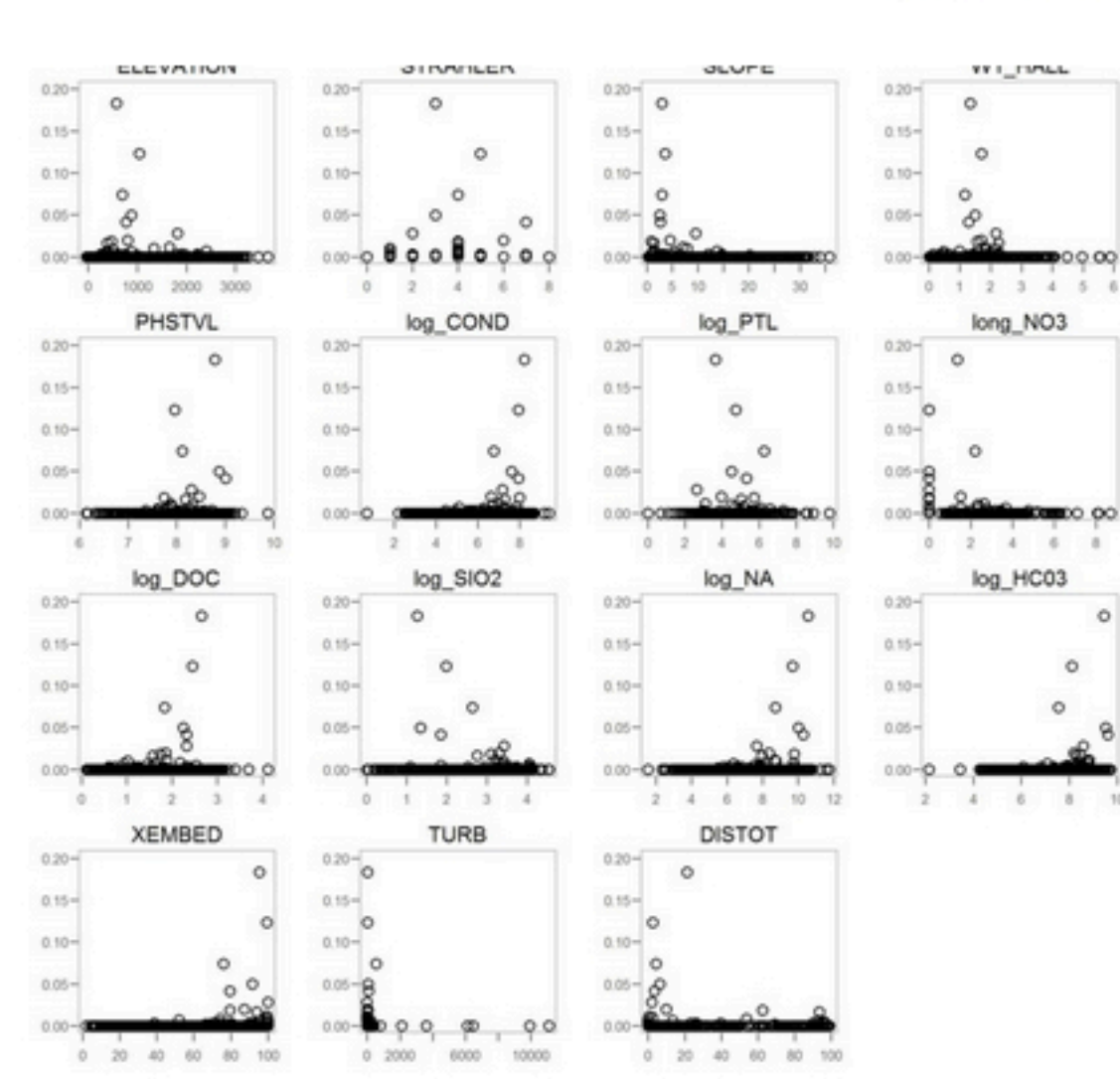
EMAP Assessment

EMAP Distribution



Response Plots

[Response Plot Key >](#)



Citations & Links

Citations

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Links

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[Rhopalodia gibberula NCBI](#)

[North American Diatom Ecological Database](#)

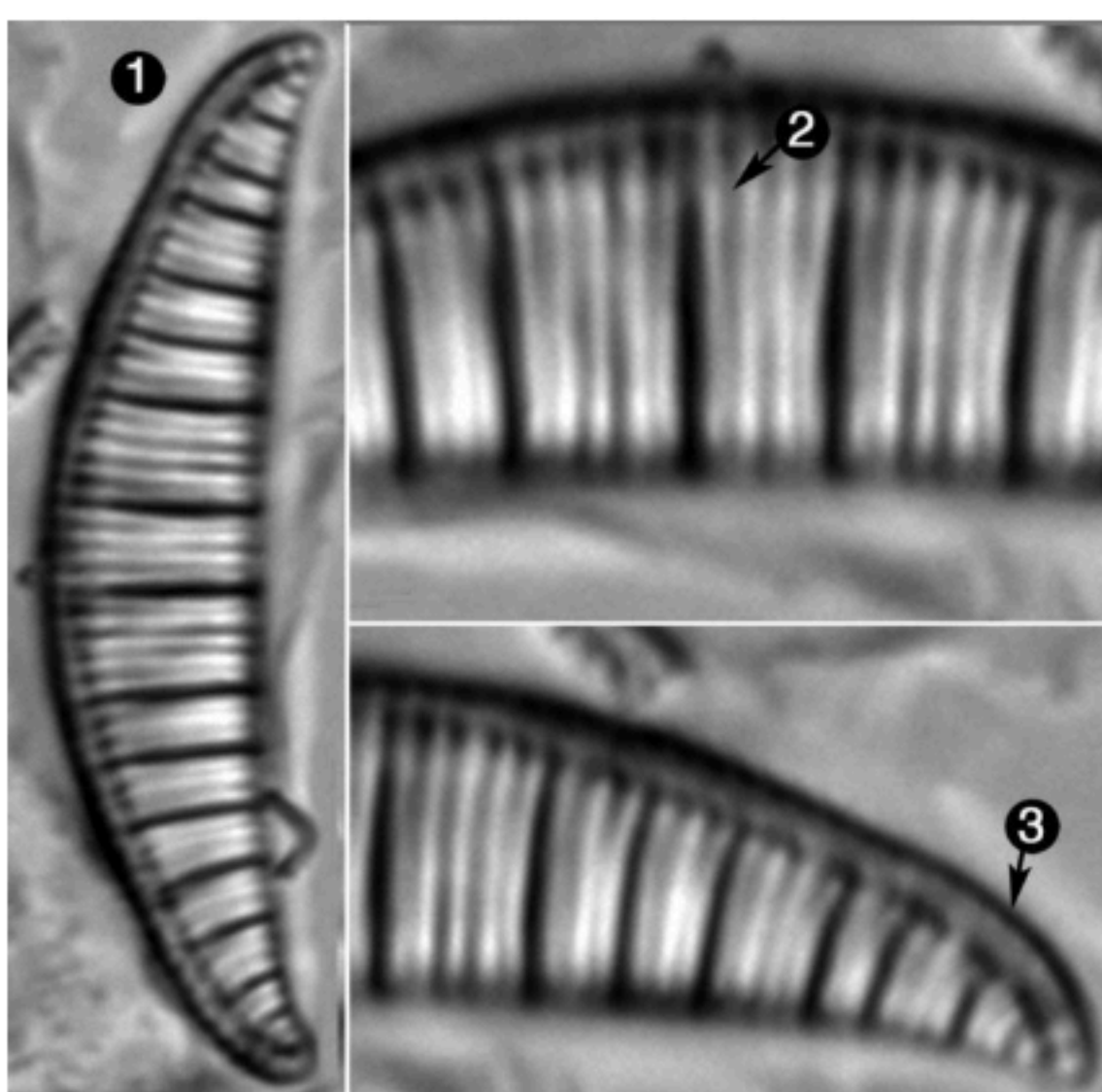
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Guide to *Rhopalodia gibberula*

(Ehrenb.) O.Müll. 1895



Credit: Elaine Jordan

- 1 Valves lunate
- 2 Striae 2-6 between costae
- 3 Apices slightly bent ventrally, or protracted and acutely rounded

Valves are lunate, with strongly convex dorsal margins that are often slightly notched in the middle. The ventral margin is slightly concave to straight. In girdle view, frustules are broadly lanceolate to elliptical. Apices are slightly bent ventrally, or protracted and acutely rounded. The raphe is located on dorsal margin and is difficult to distinguish. Transapical costae may be slightly radiate.