

POSTER PRESENTATION

NEW SPECIES OF THE DIATOM GENUS *GOMPHONEMA* EHRENBERG  
(BACILLARIOPHYCEAE) FROM HAWAII

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A survey of nearly ninety aerophilous and freshwater collections from three islands (Kaua'i, Oahu and Hawai'i) showed the presence of 6 new species of the genus *Gomphonema* Ehrenberg. Some of these species are new interpretations of taxa previously reported from the Hawaiian Islands, others are new discoveries. We present descriptions of these new taxa based on light and scanning electron microscopy. The diversity of this genus as a proxy for the freshwater diatom flora of the Hawai'i is discussed, in the context of a new three-year, NSF-supported biotic survey of the freshwater algae of the Hawaiian Islands. Based on preliminary observations of this and other freshwater raphid diatom genera, it would appear that the Hawaiian Islands support an endemic flora of freshwater diatoms far greater than previously reports would indicate.