

## POSTER PRESENTATION

### A DESCRIPTION OF THE FRUSTULAR MORPHOLOGY OF *FRUSTULIA CREUZBURGENSIS* (KRASSKE) HUSTEDT, WITH COMMENTS ON ITS SYSTEMATIC POSITION

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*Frustulia creuzburgensis* (Krasske) Hustedt was originally assigned to the genus *Navicula* Bory and later transferred to *Frustulia* Rabenhorst due to its unilaterally deflected external proximal raphe ends resembling those of *F. weinholdii* Hustedt *emend* Wallace. Unlike most members of the genus, *F. creuzburgensis* is found in saline waters, and has been reported from Europe, N. America, S. Africa and Hawaii. Light and scanning electron microscopy of *F. creuzburgensis* from coastal streams in California indicates the presence of porte-crayon arrangement around the external distal raphe ends, a feature used to diagnose *Frustulia*. However, there is also a lack of ribs bordering the raphe system, which is inconsistent with other members of *Frustulia*. A notch in the girdle bands at about mid-valve, accompanied by girdle band protuberances, is described for the first time in this species. Populations of this taxon produce both *cis* and *trans* frustules in a 1:2.5 proportion, respectively. Enlarged external areolar openings near the external proximal raphe ends are also described for the first time. We discuss the possible relationships of this enigmatic taxon amongst the Naviculales.