

ORAL PRESENTATION

SOME INTERESTING DIATOMS FROM IOWA WETLAND MITIGATION SITES

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During 2005 and 2006 twelve wetland mitigation sites and three natural wetlands in Central Iowa were sampled. The 222 fresh collections examined microscopically revealed 847 taxa including 615 non-diatom algae, 157 non-photosynthetic protozoans, and 75 microinvertebrates. Although several diatoms were observed in these live samples, subsequent analysis of prepared Naphrax mounts reveals a much greater diversity of diatoms than of all the other taxa. For instance, the fresh observations averaged 12 non-diatom taxa per sample. Naphrax mounts examined from the first two of the eight sampling dates average 45 diatom taxa per sample.

Among the diatoms observed are members of the genera *Craticula*, *Neidium*, *Playaensis*, and *Tryblionella* which have not been reported from Iowa. Light and scanning electron microscopical observations will be reported.

The three natural wetlands were a prairie pothole, a peatland marsh, and an upper floodplain river marsh. The non-diatom microorganisms of the created wetlands most resembled the upper floodplain river marsh communities; but no other site-related or seasonal patterns were found. Their diversity increased with more variation in physical structure at a site. The diatom distribution and diversity will be compared with these patterns.