

PLANTS OF THE UPPER MISSISSIPPI RIVER SYSTEM

Long Term Resource Monitoring Program Sampling Methods

Five pools are monitored for vegetation on the Upper Mississippi River System including Pools 4, 8, 13, and 26 on the Mississippi River and La Grange Pool on the Illinois River.

Stratified Random Sampling

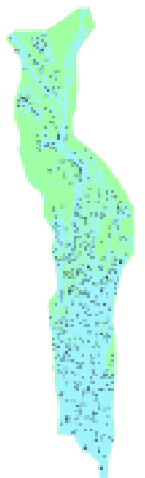
submersed and floating leaf plants

- ◆ 550 to 650 sampling points are randomly selected throughout each pool.
- ◆ Plant samples are taken with a rake. Plants retrieved are identified to species.
- ◆ The frequency of each species is calculated and increasing or decreasing trends are noted.

Aerial Photos

floating leaf, emergent, and terrestrial plants

- ◆ 1:15,000 color infrared aerial photos of each pool are taken from an airplane.
- ◆ The aerial photos are converted to digital coverages through photo interpretation, transferring and digitizing.
- ◆ The resulting coverages can be used to calculate the acres of vegetation types and land uses.

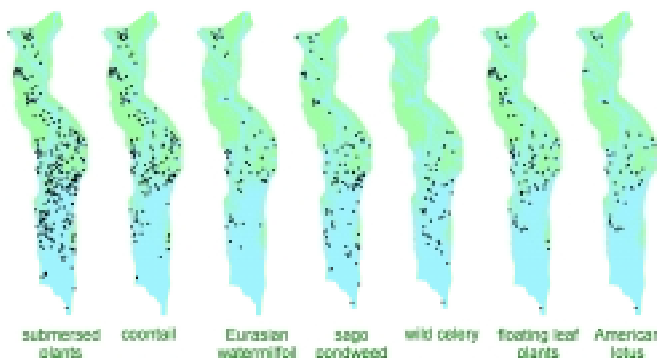


Rake samples



sago pondweed

1998 sampling points, Pool 8



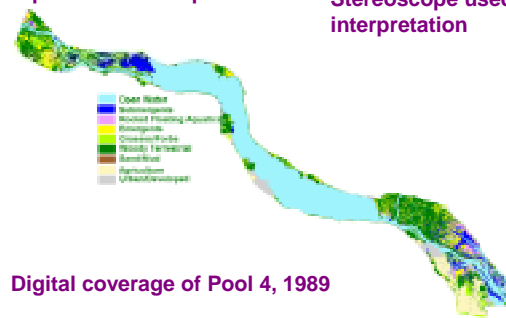
1998 sampling points where plants occurred, Pool 8



Aerial photo with interpretation



Stereoscope used for interpretation



Digital coverage of Pool 4, 1989

Seedling and Seedfall Study

forest regeneration

- ◆ 15 plots in two locations (total of 30) are monitored in each pool.
- ◆ Square one meter plots are searched for seedlings. Seedlings are tagged and their health is tracked and recorded.
- ◆ Buckets at each site catch seeds falling from the trees. The seeds are identified and counted.

