



Sandpiper Pond Restoration

Fish and Macrocrustaceans

Objectives

- Determine the composition and abundance of fish and macrocrustaceans
 - Diversity
 - Similarity
 - Patterns of migration
- Document species population dynamics
 - Growth
 - Reproduction
 - Food habits
- by collecting a baseline data set prior to work
- and bi-weekly samples thereafter

Fishes of Sandpiper Pond



Cyprinodon variegatus



Poecilia latipinna



Fundulus confluentus

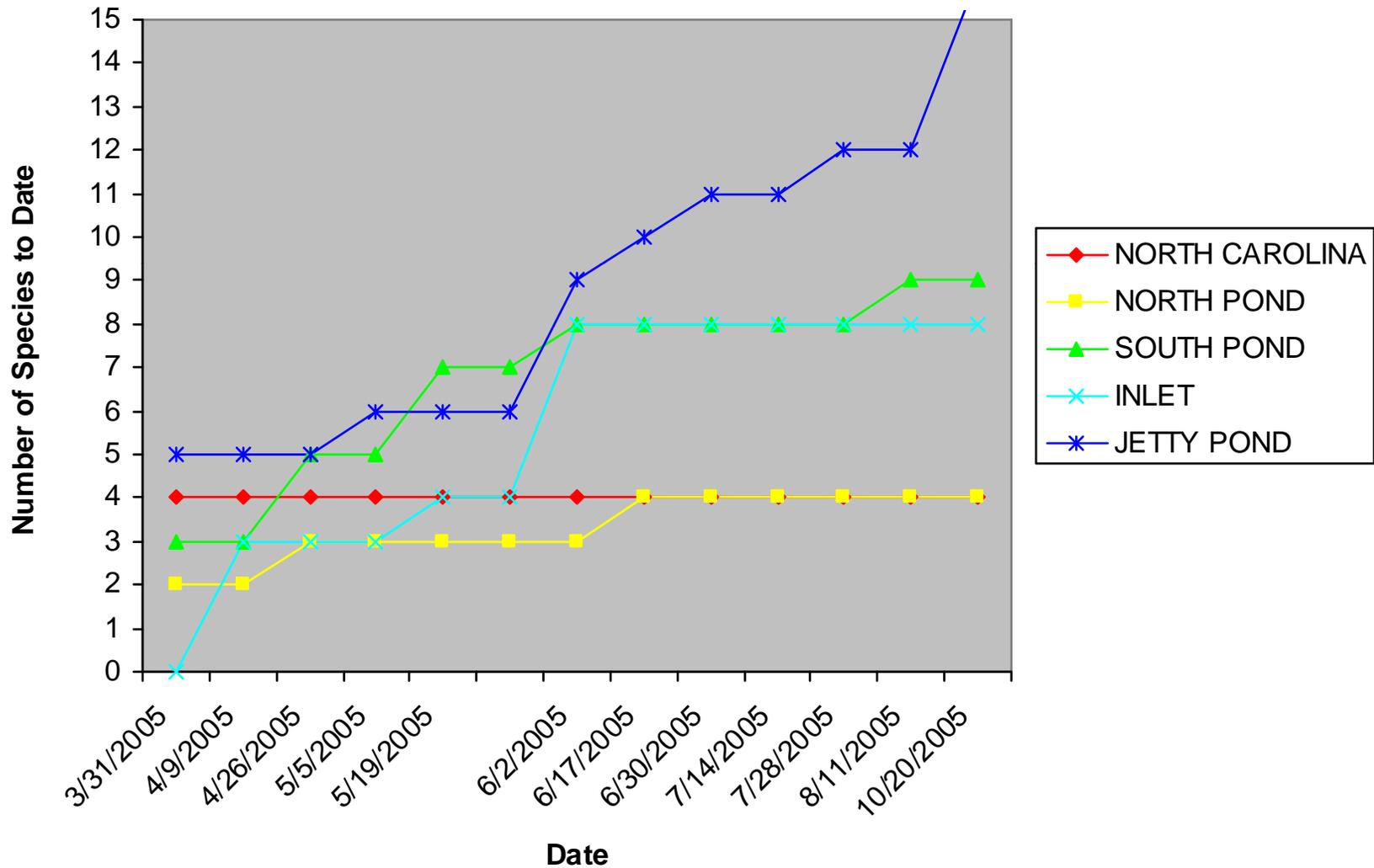


Gambusia holbrooki



Lucania parva

Species Abundance



Comparisons

- Mullet Pond, Shackleford Banks NC
 - Freshwater marsh
 - Isolated from seawater for approx. 30 years
- Jetty Lagoon, HBSP, SC
 - Salt marsh pond
 - Restricted opening and exchange with Murrells Inlet / Atlantic Ocean
 - Created after construction of jetties

Sørensen's Coefficient of Similarity

- $S = 2J / (X+Y)$

- where

J = total number of species in both locations

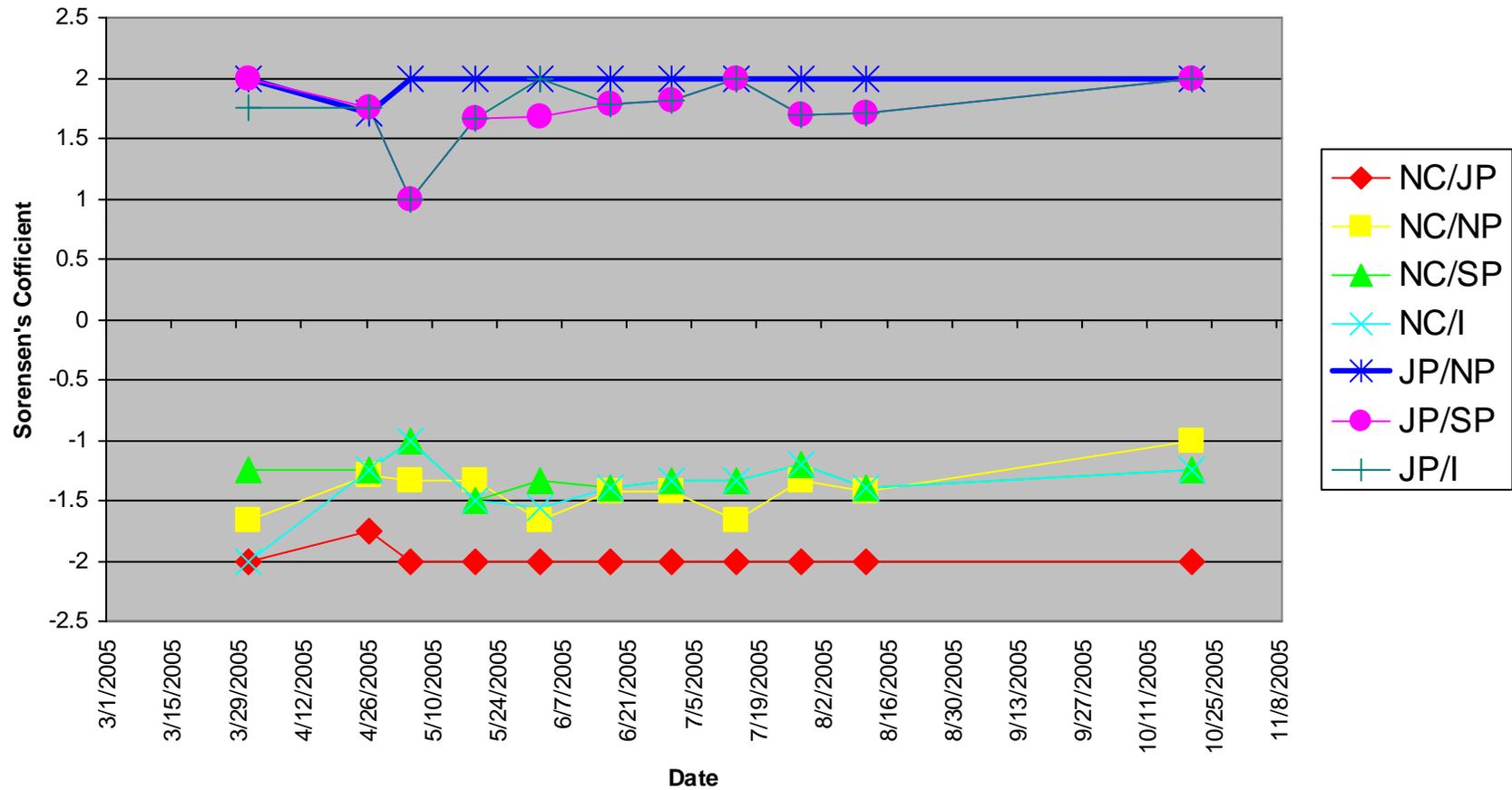
X = number of species in first location

Y = number of species in other location

S=1 indicates identical species composition

S=2 indicates completely different compositions

Similarity of Fish Faunas



Bibliography

- **Au, Shu-fun 1974. Vegetation and Ecological Processes on Shackleford Bank, North Carolina. NPS Scientific Monograph No. 6**