Little Bayou Pierre Survey

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Bayou Darter Research


Bayou Darter Surveys 1986-1989
Fish Assemblage in Bayou Pierre

• Earlier work documented 67 species (>24,000 individuals) in 202 samples

• Work focused on Bayou Pierre, 12 samples in Little Bayou Pierre
Fish Assemblage in Bayou Pierre

• Objectives
  – Resample Little Bayou Pierre
  – Is the Bayou Darter there?
  – If not, why?
Current Sampling

Bayou Pierre

Historical Surveys (1986-1989)

Current Surveys (2010)
Approach

• Are there other species found only in Bayou Pierre or Little Bayou Pierre?

• What species commonly occur with Bayou Darters? Are those species also found in Little Bayou Pierre?

• **Indicator species analysis** – What species are indicators of 1) Bayou Pierre, 2) Little Bayou Pierre and 3) samples with Bayou Darters
• Bayou Pierre Indicators
  – *Etheostoma rubrum*
  – *Etheostoma lynceum*
  – *Noturus hildebrandi*

• Little Bayou Pierre Indicators
  – *Micropterus punctulatus*
  – *Fundulus olivaceus*
  – *Luxilus chrysocephalus*
  – *Notropis longirostris*
Within Bayou Pierre:

- **Samples with Bayou Darters**
  - *Etheostoma lynceum*
  - *Noturus hildebrandi*

- **Samples without Bayou Darters**
  - *Fundulus olivaceus*
  - *Notropis longirostris*
  - *Cyprinella lutrensis*
Indicator Species Analysis

- Species found with Bayou Darters in Bayou Pierre tend to be more common in Bayou Pierre
  - *Noturus hildebrandi*
  - *Etheostoma lynceum*

- Species characteristic of Little Bayou Pierre tend not to be found with Bayou Darters
  - *Fundulus olivaceus*
  - *Luxilus chrsocephalus*
  - *Micropterus puctulatus*
  - *Campostoma anomalum*
Ordination Analysis
Conclusions

• Fish assemblages in Bayou Pierre and Little Bayou Pierre are more distinct than expected given their close proximity.

• Seems unlikely there was ever a Bayou Darter Population in Little Bayou Pierre. There was likely not any colonization resulting from upstream movements.

• Conservation of Bayou Darter lies in preserving populations in Bayou Pierre.

• Control of erosion, headcutting and channel modifications are key.