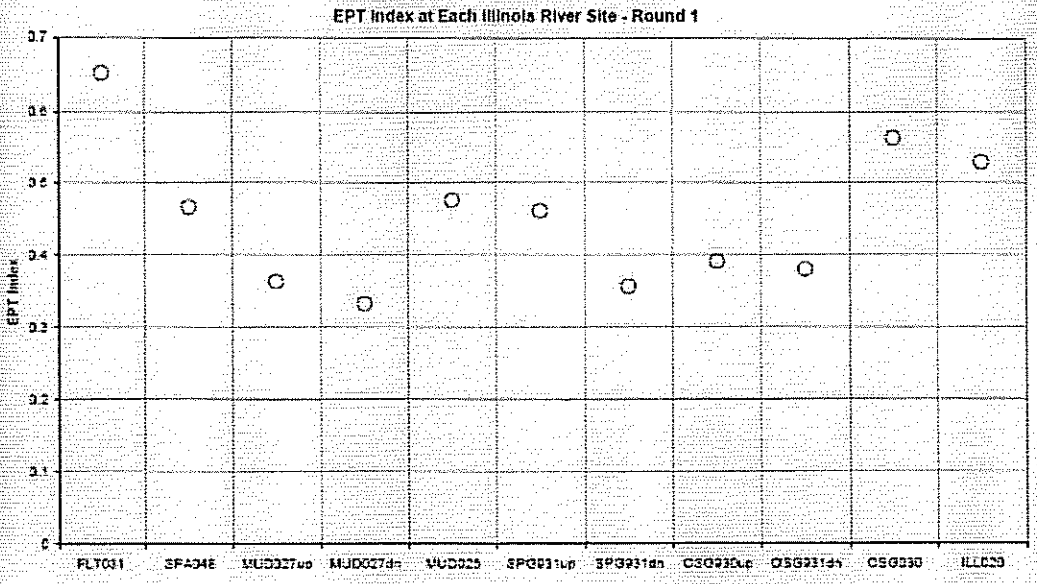
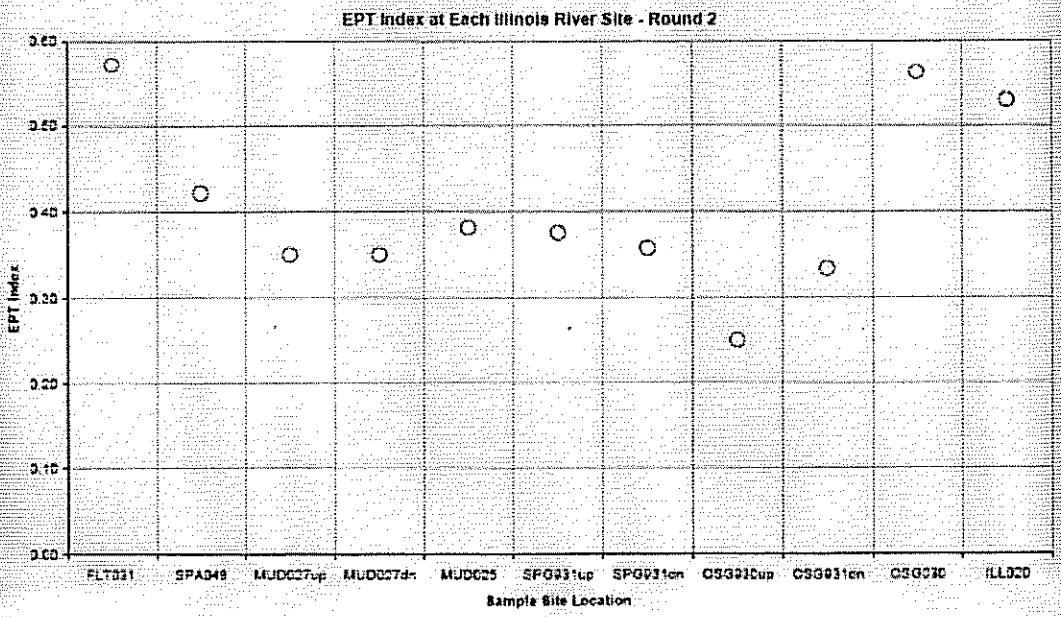
EPT Index





(USEPA 2004)

Exponent

Ginn007111

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USGS Ozark Plateau Fish Community Assessment

18 stations sampled between 1993/95

One station located on the Illinois River at Tahlequah, OK, above Tenkiller Lake)

Illinois River station had among the highest species richness of all stations sampled

(USGS 1998)

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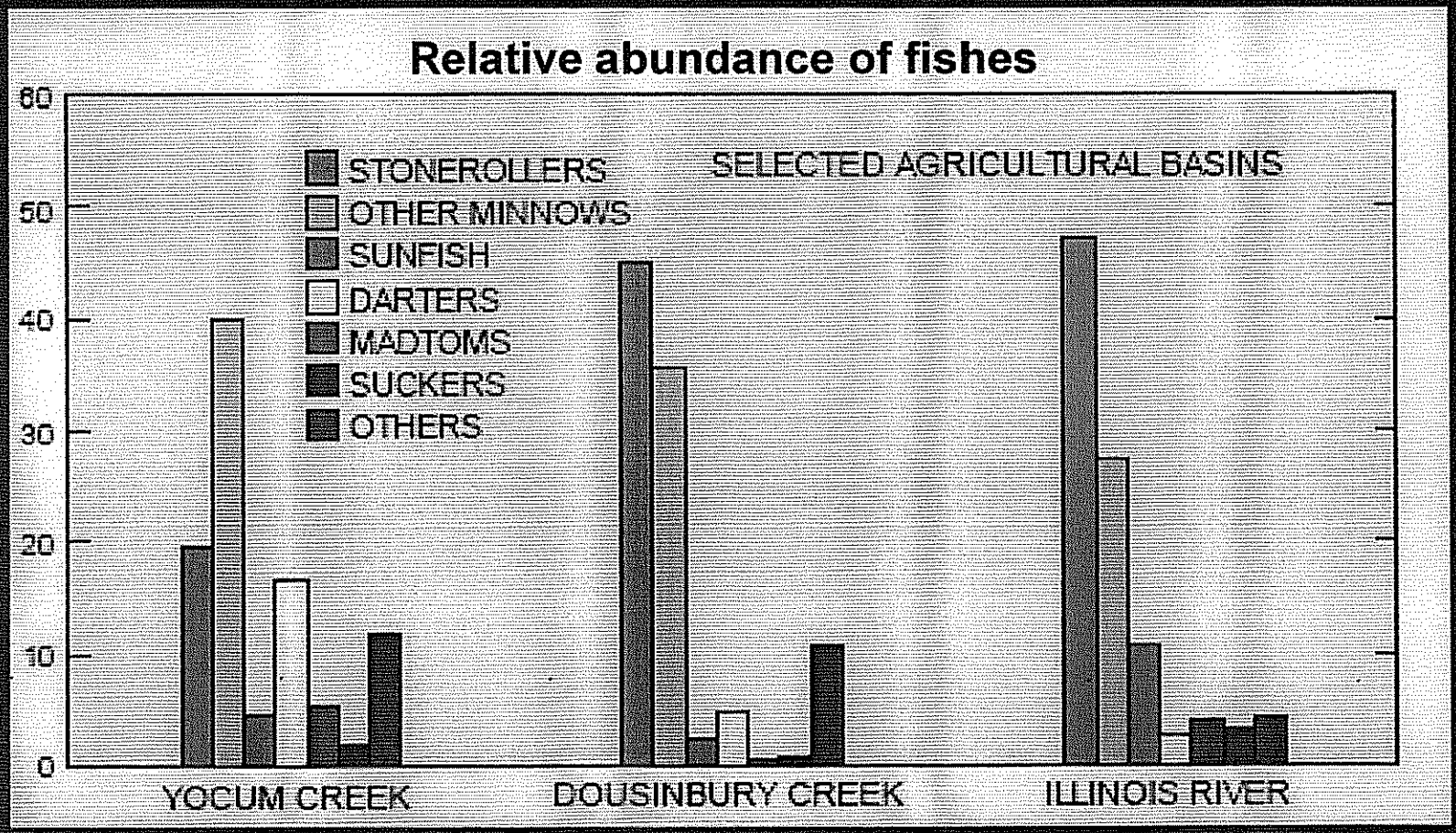
USGS Ozark Plateau Fish Community Assessment (cont.)



(USGS 1998)

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Lake Tenkiller Primary Productivity

- Studies by USEPA in 1985, OK State in 1992/93, & NE State in 2001-2003
- 1992/93 data on algal communities indicated reservoir was P-limited, likely due to high N
- Total P, N, chlorophyll *a*, and turbidity decreased from upper to lower stations, differences not significant
- 1992/93 algae cell densities were similar to those measured in 1985
- Reservoir was P-limited in 2002 growing season
- Phytoplankton production was N- and light-limited in early 2002 as well as 2001 & 2003

(Gakstatter & Katko 1987, Haraughty & Burks 1996, Norvell & Schooley 2004)

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EPA Illinois River Survey: Lake Frances

- In 1985, chlorophyll *a* concentrations were low (<5 ug/L) above Lake Frances; however significant algal communities developed in the lake
- Below Lake Frances concentrations declined and reached upstream concentration levels within 20-30 miles
- Patterns for phytoplankton were similar, with levels increasing in Lake Frances, then decreasing below the dam

(Gakstatter and Katko 1987)

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EPA Illinois River Survey: Tenkiller Lake

Chlorophyll *a* decreased from 12 ug/L near the upper end of the reservoir to 1.7 ug/L near the dam

Phytoplankton also decreased from the upper to lower end of the reservoir

Dominated by filamentous blue-green algae

(Gakstatter and Katko 1987)

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