



IOWA DEPARTMENT OF NATURAL RESOURCES

Sport Fish Restoration Research Findings

Evaluation of the status, distribution, and habitats of Flathead Catfish in Iowa's rivers.



Project Duration: 2003-2011

Location: Statewide



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Catfish angling and management is a subject of great importance to many Iowa anglers. Some anglers have considerable interest in trophy fisheries for Flathead Catfish, and are willing to accept more strict regulations if they will improve their chances of harvesting a trophy fish. Since little was known of the status of Flathead Catfish populations in Iowa, and the factors affecting these populations, it was unknown whether changes in the management of Flathead Catfish could improve the fishery. This study was started in 2003 to provide information needed to improve Flathead Catfish management in the state.

Goals

- Evaluate methods used to sample Flathead Catfish.
- Measure Flathead Catfish populations on several interior rivers.
- Evaluate distribution and seasonal movements of Flathead Catfish in Iowa.
- Determine relationships between Flathead Catfish populations and habitat.



Results

- Electrofishing sampled a wider range of Flathead Catfish sizes and ages during early-summer than late-summer, but mid-summer hoop nets were most efficient for sampling Flathead Catfish greater than 20 inches.
- Assessment of Flathead Catfish populations in interior rivers revealed above average catch rates and the presence of trophy size individuals (greater than 40 inches) and fish over 16 years old (max. age 27) in all study rivers (despite known limitations of low-frequency electrofishing for sampling larger, older fish).

- Mean length at age varied greatly within and among sites on interior rivers.
- Radio-telemetry results identified long distance seasonal movements of Flathead Catfish associated with overwintering and spawning. Fish tracked for multiple years showed a high degree of loyalty for seasonal locations.
- Dams that act as barriers to upstream fish passage play a major role in determining the distribution of Flathead Catfish populations in Iowa's interior rivers.

Conclusions

- Low frequency electrofishing during early summer maximized catch rates of Flathead Catfish while collecting some larger, older fish. Supplementing with mid-summer hoop nets provided a better estimate of maximum ages and sizes of fish in the population.
- Characteristics of Flathead Catfish populations sampled on interior rivers did not suggest high exploitation. So, changes to sport fishing regulations were not warranted.
- Barriers to Flathead Catfish movements could negatively affect populations. This is particularly true if barriers separate sections of river that provide suitable spawning and summer/fall habitat from suitable overwintering habitats.
- Maintaining fish passage where it exists and improving fish passage where possible is important to interior river Flathead Catfish populations. Fish passage improvements which reconnect 3rd – 6th order stream segments to segments with evidence of Flathead Catfish populations would provide the greatest benefits.