

NAME OF SPECIES: Threespine stickleback (*Gasterosteus aculeatus*)

| A. CURRENT STATUS AND DISTRIBUTION | |
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| 1. In Wisconsin? | a. YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| | b. Abundance: ? |
| | c. Geographic Range: Lakes Superior, Michigan, and several tributary rivers, including Brule, Kewaunee, Root, Iron, and St. Louis |
| | d. Type of Waters Invaded (rivers, ponds, lakes, etc): |
| | e. Historical Status and Rate of Spread in Wisconsin: 1 st reported in Lake Huron in 1982, rapidly spread to other northern Great Lakes |
| 2. Invasive in Similar Climate Zones | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Where: All Great Lakes except Erie |
| 3. Similar Habitat Invaded Elsewhere | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Where: see above |
| 4. In Surrounding States | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Where: |
| 5. Competitive Ability | High: Have rapidly expanded range within the Great Lakes, fairly aggressive feeders Low: Little found about actual impacts where introduced |
| B. ESTABLISHMENT POTENTIAL AND LIFE HISTORY TRAITS | |
| 1. Temperature: | Range: 4 - 20 deg. C |
| 2. Spawning Temperature: | Range: |
| 3. Number of Eggs: | Range: |
| 4. Preferred Spawning Substrate: | eggs in nests constructed of plant materials |
| 5. Hybridization Potential: | In California, report of hybridization with a native stickleback species |
| 6. Salinity Tolerance | Fresh: <input checked="" type="checkbox"/> Marine: <input checked="" type="checkbox"/> Brackish: <input checked="" type="checkbox"/> |
| 7. Oxygen Regime | Range: |
| 8. Water Hardness Tolerance | Range: |
| 9. Easily confused for Native Species? | List: |
| C. DAMAGE POTENTIAL | |

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| 1. Likelihood of Damage | a. Presence of Natural Enemies: |
| | b. How well introductory and expansion pathways can be described and quantified: Not well understood. Not known in Great Lakes before 1979. May have migrated in via the Nipissing Canal, been brought in by bait dealers and released by anglers, or spread via ballast water |
| 2. Environmental Impacts | a. Alteration of ecosystem composition, structure and function: aggressive feeder, prey on eggs and also worms, crustaceans, insects, small fish |
| | c. Damage to ecosystem resilience/sustainability: |
| | d. Loss of biological diversity: may compete directly with native sticklebacks for food; could also cause concern if it's found that they can hybridize with any native sticklebacks |
| | e. Abiotic modifications (affects on turbidity, H2O chemistry, etc.): |
| | f. Biotic effects on other species (loss of cover, nesting sites, forage, changing competitive relationships: |

D. NET SOCIO/ECONOMIC IMPACT

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| 1. Positive aspects of the species to the economy/society: | Effect: |
| 2. Direct and indirect effects of the invasive species: | Effect: |
| 3. Type of damage caused by organism: | Effect: concern about potential competition with native fish and possible impacts on native fish populations |
| Industries affected by invasive: | Effect: |
| 4. Loss of aesthetic value affecting recreation and tourism: | Effect: |
| 5. Increased cost to a sector (monitoring, inspection, control, public education, modifying practices, damage repair, lower yield, loss of export markets due to quarantine: | Effect: |
| 6. Cost of prevention or control relative to cost of allowing invasion to occur (cost of prevention is borne by different groups than cost of control): | Effect: |

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| 7. Cost at different levels of invasion: | Effect: |
| E. CONTROL AND PREVENTION POTENTIAL | |
| 1. Costs of Prevention (including Education): | |
| 2. Responsiveness to Prevention Efforts: | |
| 3. Detection Capability: | |
| 4. Control Tactics Effective: | Mechanical: <input type="checkbox"/> Biological: <input type="checkbox"/> Chemical: <input type="checkbox"/> |
| 5. Efficacy/Feasibility of Control (effort, # of staff): | |
| 6. Cost of Control: | High: <input type="checkbox"/> Medium: <input type="checkbox"/> Low: <input type="checkbox"/> |
| 7. Non-Target Effects of Control: | |
| 8. Threshold at which control would be attempted: | |
| 9 Efficacy of Monitoring: | |