

Threatened fishes of the world: *Notropis sabiniae* (Jordan and Gilbert 1886) (Cyprinidae)

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Common name: Sabine shiner. **Conservation status:** Listed as endangered by the Missouri Department of Conservation; species of conservation concern by US Forest Service Region 8 and US Fish and Wildlife Service Region 2. **Systematics:** Member of *Notropis dorsalis* species group (*N. dorsalis*, *N. buccatus*, *N. longirostris*, *N. ammophilus* and *N. rafinesquei*) (Raley and Wood 2001). **Identification:** *N. sabiniae* is straw-colored with an arched body and colorless fins (Robison and Buchanan 1988). Small eyes are directed slightly upward (Pflieger 1997). Snout is rounded and ventral side of head is distinctly flattened. Mouth is large, subterminal, and nearly horizontal (Robison and Buchanan 1988; Pflieger 1997). Maximum total length is 64 mm. D 8, A 6–8 (7), lateral line scales 31–37, pharyngeal teeth 0.4–4.0 (1.4–4.1 in the Big Black drainage; Ross 2001). Photograph by Chad Thomas, Texas State University – San Marcos. **Distribution:** White, Black and St. Francis Rivers in Arkansas and Missouri; Big Black and Yazoo drainages of Mississippi and westward through central Louisiana to the San Jacinto river of East Texas (Robison and Buchanan 1988; Pflieger 1997; Ross



2001). **Abundance:** Ranges from locally common to rare (Gilbert 1978). **Habitat and ecology:** *N. sabiniae* inhabits relatively shallow slow flowing runs and riffles of small to large rivers and streams, and is often associated with sandy substrate (Moriarty and Winemiller 1997). Estimated life span is 2.5 years (Williams and Bonner 2006). Diet consists mainly of aquatic invertebrates (Williams and Bonner 2006). **Reproduction:** The Sabine shiner reaches sexual maturity at age 1 and spawns multiple clutches of eggs over an extended spawning period in central Louisiana (April through September; Heins 1981) and in east Texas (May through October; Williams and Bonner 2006). Evidence suggests that *N. sabiniae* is a broadcast spawner and that spawned eggs and larvae disperse downstream via drift during early development (Williams and Bonner 2006). **Threats:** Altered flow regimes and habitat fragmentation potentially disrupt reproductive processes by impeding downstream drift of early life stages and upstream migration of adults. **Conservation action:** Although considered currently stable by Warren et al. (2000), *Notropis sabiniae* is

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considered rare or uncommon due to restricted ranges in Louisiana, Mississippi and Arkansas. No specific conservation plan has been developed for this species. However, the Missouri Department of Conservation offers the following suggestions as conservation actions: minimize stream projects from June 1 to July 31, prevent sand and gravel removal and reservoir construction within *N. sabiniae* habitat, maintain sand bars and riverine features of streams and avoid altering water levels where *N. sabiniae* are found. Further conservation actions should include implementation of population monitoring programs, protection of *N. sabiniae* habitat from large-scale disturbances, and maintenance of stream connectivity and natural flow regimes.

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