# Native Fish in the Classroom

# **Teacher Guide**

# American Paddlefish (Polyodon spathula)



Louisiana Department of Wildlife and Fisheries and Louisiana Sea Grant College Program 2020 Update Edition



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## **INTRODUCTION**

*Native Fish in the Classroom* is a multidisciplinary, classroom-based project developed primarily for middle and high school students. The overall goal of the project is to create an active learning environment to assist students in developing an attitude of stewardship toward natural resources and an appreciation for fisheries management practices through the process of rearing Paddlefish.

The following objectives support this goal:

- 1) Provide students with background information on fisheries management, fish biology, protected species, and aquatic natural resources.
- 2) Maintain a classroom-based nursery aquarium in which students rear Paddlefish from eggs to fingerlings and learn about the components necessary for fish survival.
- 3) Learn about freshwater ecological systems by understanding the role of fisheries management and how it benefits the whole freshwater system.

#### Why Paddlefish?

The Paddlefish is an ideal species to use for studying fish growth and development in the classroom because its life cycle parallels the academic year. Paddlefish fry can grow about 1 inch per week in ideal environmental conditions, and often reach about 4 inches in less than two months. This rapid growth allows students to observe three distinct life stages of the Paddlefish.

#### Timeline

The project is expected to occupy class time from early March through mid-May. A teacher training workshop is scheduled in the summer for teachers new to the project. Additionally, a January meeting covering the Paddlefish spawn ensures successful preparation for receiving Paddlefish eggs in the spring. In early March, teachers are invited to bring their students to assist with the artificial spawning process at the Booker Fowler Fish Hatchery and bring eggs back to their classrooms.

Once hatched, fry will be reared to fingerling stage by the students in their classroom nursery tank. At the end of the school year, students will join their teacher to release their (hopefully!) 4-6-inch fingerling Paddlefish into a pre-approved public stream, with the required supervision/approval of an LDWF biologist. The hatchery will also have a reserve of Paddlefish fingerlings that will be released into Louisiana streams to help sustain a healthy Paddlefish population, in addition to being used to replace any classroom fingerlings that may die during the school year. The fingerlings raised in the hatchery often grow up to 6 inches or more before being released into the wild.

#### **Expected Benefits**

**Louisiana students** will obtain hands-on, real-science knowledge of the state's native aquatic resources, and ideally will develop a sense of stewardship towards all of Louisiana's natural resources.

**Louisiana teachers** will gain access to the state's Booker Fowler Fish Hatchery as an outdoor classroom. *Native Fish in the Classroom* will also provide hands-on classroom lessons unique to Louisiana.