

Native Fish in the Classroom

U.S. Fish and Wildlife Service - New Mexico Fish and Wildlife Office

Introduction

Native Fish in the Classroom (NFIC) is a new program in its second year of operation in Albuquerque, New Mexico. Based on nationally recognized programs, NFIC is structured so that students can raise native fish in their classroom while learning about ecology, biology, conservation, and socio-economic issues regarding water resources. As a positive educational tool, this hands-on, interdisciplinary project is appropriate for all grade levels, however, this year NFIC will be open specifically for 5th grade classes.

The NFIC project allows students to raise fish in the classrooms, providing an opportunity for students to develop a bond with the fish in their care. Students will have several months to learn all aspects of the fish's life including habitat, biology, and threats. To encourage appreciation for native New Mexico species, we will be using Rio Grande cutthroat trout and other native fish species of the Middle Rio Grande in all of our classroom aquariums. At the end of the school year, students are provided an opportunity to release their fish in their native habitat (if funds available). Previous sites included the Rio Grande, north of Pilar, New Mexico (Rio Grande cutthroat trout - Saturday field trip), and the Rio Grande near Bosque School in Albuquerque, New Mexico (Middle Rio Grande species - weekday fieldtrip).

Project Goal

By understanding the need to conserve habitats, students become stewards of local watersheds and can make informed decisions about how to care for the environment in the future. Caring for the fish fosters a conservation ethic in the students and promotes an appreciation for native wildlife. The physical act of students walking to a river and directly releasing their fish into the wild makes a concrete connection between caring for the fish and caring for the water. By the end of the project, students will have learned about the importance of local resources and wildlife, and have memories that last a lifetime.

Points of Contact

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NMFWCO Responsibilities

- Provide *2012 NFIC Reference Guide and Activities* booklet and a supplemental resource CD. The reference guide will include aquarium set-up, maintenance guidelines, background and species-specific information, and classroom activities.
- Provide all equipment to set-up aquariums in four classrooms, including providing native fishes. NMFWCO will provide native fish and support to additional classrooms who want to participate in the program if they are able to purchase their own tank equipment and agree to the standards of the NFIC project.
- Provide native fish species for classrooms.
- Provide in-class presentation during the course of the project.
- Determine and arrange for appropriate release locations (if funds allow) with assistance from teachers. Previous sites included the Rio Grande, north of Pilar, New Mexico, and the Rio Grande near Bosque School in Albuquerque, New Mexico.

Teacher Responsibilities

- Develop and implement activities to suit specific needs of the classroom. Teachers are encouraged to use, modify, or create new activities for students from the *2012 NFIC Reference Guide and Activities* booklet.
- Care for the fish and aquarium during extended school breaks.
- Monitor students' participation and daily maintenance of aquariums.
- Immediately notify NMFWCO biologists of any aquarium or fish health problems.
- Provide materials for various activities.
- Inform parents of the schools participation in the NFIC program.
- Organize students during the NFIC – Releasing the Natives Event (if funds allow).

Student Responsibilities

- Feed fish as scheduled.
- Complete scheduled water quality monitoring and water changes.
- Maintain record of fish health, growth, and numbers.
- Complete in-classroom activities and curriculum per teacher instruction.
- Participate in the NFIC – Releasing the Natives Event (if funds allow)

Proposed Timeline

1. September 2012
 - Distribute applications for participation in the NFIC program
2. October 2012

- October 3rd (COB 4:30 p.m.), Deadline for all applications
- October 10th, Notify schools selected to participate in NFIC project
- 3. November 2012
 - November 3rd, Teacher Workshop (mandatory for participating classroom teachers)
 - Week of November 26th or December 3rd, Begin aquarium set-up
- 4. December 2012
 - Complete appropriate activities
- 5. January 2013
 - NMFWCO completes in-classroom presentation
 - Complete appropriate activities
 - Week of January 8th, Begin bacteria cycling of aquarium
 - Week of January 16th, Introduce fish to aquariums
- 6. February 2013
 - Complete appropriate activities
- 7. March 2013
 - NMFWCO completes in-classroom presentation
 - Complete appropriate activities
- 8. April 2013
 - Pre-release preparation
 - Transition trout to natural feed
 - NMFWCO completes in-classroom presentation
- 9. May (to be schedule by January 2013)
 - Release fish into the wild (site to be determined, if funds available)
 - Teacher evaluation of the program

Resources for Teachers:

- Trout in the Classroom
 - <http://www.troutintheclassroom.org/>
- New Mexico Department of Game and Fish
 - <http://www.wildlife.state.nm.us/education/index.htm>
- Environmental Protection Agency
 - <http://www.epa.gov/enviroed/>

NFIC Reference and Activity Guide under revision

Although we are proud of our first NFIC Reference and Activity Guide, it is currently being revised. We are working hard to incorporate and improve our guide using feedback from our first group of teachers as well as our own reviews. The guide will be posted when the revisions are completed.