In the 21st century, our freshwater resources face many challenges:

- Recurring drought and human population growth have led to increased and competing demands for freshwater resources.
- Reduced river flows, lower lake levels and aging lake infrastructure threaten to degrade fish habitats and reduce fishing and boating opportunities.
- Urban development and other land use changes alter watershed conditions and can affect fish habitats.
- Aquatic invasive species can block boater and angler access on lakes, worsen water losses and lead to costly maintenance and repairs for water infrastructure.

**Division Activities**

- Fisheries management and research
- Fish rearing and stocking
- Fish habitat restoration and enhancement
- Aquatic invasive species management
- Conservation of imperiled freshwater fishes and mussels
- Angler access improvements on rivers and lakes
- Instream flow studies
- Fish kill investigation and recovery of damages
- Outreach and information
Division staff are located in Austin, San Marcos, two regional offices, 15 district offices, one research center and five fish hatcheries. This includes the Texas Freshwater Fisheries Center, which combines a state-of-the-art hatchery with an educational visitors’ center. Field biologists and technicians spend much of their time away from the office conducting surveys and habitat assessments on our lakes and streams. They typically work a 40-hour week, but the schedule isn’t always 8 to 5. Sampling trips may involve longer hours. Some activities are conducted nights and weekends.

Work Environment

Spend some time around water. Practice observing the world around you and consider what it would be like to work in such an environment. Take high school courses in biology, chemistry, physics, mathematics, computer science, English and communications. Visit a nearby college or university that offers courses in fisheries or aquatic biology. Talk with professors and students in those programs to learn about educational needs and programs that might suit you best.

CAREER CHOICES AND EDUCATION

FISHERIES BIOLOGIST (NRS I-IV)

Management Biologist
Management biologists use sampling data to develop plans to improve fisheries and achieve objectives such as improving habitat or increasing the number or size of fish caught by anglers. Managers design stocking programs and fishing regulations. They interview anglers to gauge success of management efforts. The job includes public relations, public policy and administrative responsibilities.

Research Biologist
Fisheries research biologists study aquatic organisms and their interactions with the environment. Research provides the science behind our fisheries management decisions. Areas of research include ecology, physiology, behavior, genetics, aquaculture, economics, pathology, population dynamics and computer modeling. Inland Fisheries research is coordinated by the Heart of the Hills Fisheries Science Center in Mountain Home. A crew of research biologists and technicians oversees projects and works with professionals throughout the division and agency.

Conservation Biologist
Through partnerships with local communities, private landowners, corporations, NGOs and other state and federal agencies, conservation biologists work to protect and restore Texas native fishes, their habitats and other aquatic resources. They often deal with complex issues that require advanced communication and problem-solving skills, as well as broad-based training in a variety of scientific disciplines. Areas of expertise include fish biology, aquatic ecology, hydrology, toxicology, watershed management, restoration science, instream flow science, water quality and management of aquatic nuisance species.

Hatchery Biologist
Texas freshwater hatcheries rear Florida largemouth bass, smallmouth bass, channel and blue catfish, striped and hybrid striped bass, sunfishes and prey fish. Our hatcheries do extensive research focused on improving the efficiency of hatchery production and operation as well as the overall quality of the fish being stocked.

Preparation for a Career in Inland Fisheries

Volunteer
Volunteers assist hatchery and field crews with maintenance, fish culture, and fishery and habitat assessments. AmBASSadors are special volunteers who donate their time and talents at the Texas Freshwater Fisheries Center. They assist with youth fishing activities, facility tours, special events, as well as construction and maintenance of exhibits. For more information, visit tpwd.texas.gov/volunteer

Internship
TPWD’s Summer Student Internship Program is for students who are enrolled in accredited colleges or universities and meet minimum requirements. Inland Fisheries interns work in freshwater hatcheries, field management offices, research laboratories or at the Texas Freshwater Fisheries Center in Athens. For more information, visit tpwd.texas.gov/jobs/internship.phtml

EDUCATION FOR BIOLOGISTS

• Bachelor’s degree required
• Master’s degree preferred

Relevant Degrees and Programs
• Fisheries Science
• Environmental Science
• Aquatic Biology
• Zoology
• Ecology
• Marine Science

Useful Courses
• Writing and public speaking
• Social studies
• Chemistry and statistics
• Geographic Information Systems (GIS)
• Marketing and public relations
• Human dimensions

FISHERIES TECHNICIAN (FWT I-II)

Technicians work at hatcheries and field stations, assisting with sampling, data collection, research and fish rearing. They also maintain equipment and facilities.

EDUCATION FOR TECHNICIANS

• High school diploma or GED
• Knowledge of boats, motors, auto repair, freshwater habitats and aquatic life

EXPERIENCE

EDUCATION FOR BIOLOGISTS

• Bachelor’s degree required
• Master’s degree preferred

Relevant Degrees and Programs
• Fisheries Science
• Environmental Science
• Aquatic Biology
• Zoology
• Ecology
• Marine Science

Useful Courses
• Writing and public speaking
• Social studies
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