



Bay Briefings



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Galveston Bay Estuary Program • 17041 El Camino Real, Suite 210 • Houston, TX 77058 • Phone: 281/218-6461 • Fax: 281/218-6807 • Email: gbep@tceq.state.tx.us • Web site: www.gbep.state.tx.us

Species Protection

Overview

The Galveston Bay estuary features an amazing variety of animals, from barnacles to bald eagles; from oysters to otters; from red-eared sunfish to redfish.

Galveston Bay's wildlife is also valuable economically. According to the U.S. Environmental Protection Agency, Galveston Bay's recreational fishing is valued at \$2.8 billion, and commercial fishing at \$358 million, annually. The upper Texas coast is one of the country's premier hot spots for birdwatching, which brings in people and money from around the globe. Tourism is among the region's most important industries, and wildlife watching is its fastest growing sector.

An Ecosystem Approach

Ecosystem management has emerged as the preferred approach to managing the bay's resources. This approach looks at people, habitat, and wildlife as interconnected parts of the ecosystem and attempts to strike a balance between human and environmental needs.

Habitat conservation is one of the cornerstones of ecosystem management and is critical to supporting healthy wildlife populations. Habitat conservation is the basis for most successful long-term efforts to manage fish and wildlife.

Invasive Species

Invasive species are plants, animals, and pathogens that are not naturally found in the area's ecosystem but have been introduced by human activity. Once established, these species pose a serious threat to the ecosystem, can compromise human health, and cause significant economic losses. Invasive species can be introduced through the releasing of exotic pets and aquarium species, the spreading of seeds from nursery plants by birds, the discharging of water from ships that have visited foreign ports, and in many other ways.

Numerous invasive species have become established within the bay's ecosystem. Among the most destructive invasive species present in our system are Chinese tallow, which has

invaded much of our native prairie and freshwater wetland areas; fire ants and West Nile virus, which pose serious human health concerns; and water hyacinth, a nuisance for shipping and agriculture.

Protecting Species and Ecosystems

In addition to conserving habitat, regulations help protect aquatic and wildlife species. While the public is most familiar with regulations governing fishing and hunting, other laws protect endangered species and marine mammals and prohibit the transport and sale of invasive species. In addition, organizations often undertake non-regulatory approaches to the protection of fish and wildlife, such as public-education campaigns, scientific monitoring, trash cleanups, and marsh restoration.

The Outlook for Fish and Wildlife

Studies by the Texas Parks and Wildlife Department suggest populations of important fish species in Galveston Bay are fairly stable and, in some cases, increasing.

Shrimp abundance varies annually and trends are difficult to establish. However, shrimp populations appear to be stable. Blue crab populations appear to be in decline in some areas within the bay system. Oyster populations are sensitive to environmental conditions, and production varies annually. Although trends are difficult to establish, Galveston Bay's most significant oyster reefs appear to be stable.

Populations of geese and several species of ducks have increased in recent years, while a few duck species have declined. The quantity and quality of both breeding and wintering habitat influence waterfowl populations.

Recent population declines are apparent in some species of water birds that nest in large colonies such as herons and terns. These birds use the bay all year, and their decline is possibly the result of lost breeding habitat.

Numerous species of migratory songbirds and raptors (hawks, bald eagles, etc.) use our estuary as wintering habitat or stop-over locations during long migrations. Many of these species are declining, particularly grassland species. Continued habitat loss and fragmentation pose a threat to them.

The brown pelican is a well-known success story in species management. Populations plummeted during the last century, but have recovered thanks to regulatory protection, pollution reduction, and habitat improvement. In Galveston Bay, nesting brown pelicans have risen from six pairs in 1973 to over 3,900 pairs in 2003.



Brown Pelican. Source: Kevin Stillman, Texas Department of Public Safety

What the Galveston Bay Estuary Program Is Doing

The Estuary Program implements the bay's Species Population Protection Action Plan. The plan supports comprehensive species management. Our activities include:

- protecting and enhancing habitat for fish, birds, and wildlife;
- restoring oyster reefs;
- supporting a reduction in by-catch from shrimp trawls and recreational catch-and-release efforts; and
- conducting invasive-species research and management.

What You Can Do

Persons throughout the Galveston Bay region are involved in local habitat planning. Involvement in designing and implementing these efforts is critical to the long-term success of conservation efforts for the bay. For more information on these efforts and others, visit the Estuary Program's Web site at www.gbep.state.tx.us.



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