Living Resources

Wetlands constitute more than 39% of the Inland Bays/Atlantic Ocean Basin. These lush areas provide habitat for a variety of wildlife, from egrets to diamondback terrapins.

The living resources of the Inland Bays/Atlantic Ocean Basin are both extremely valuable and extremely vulnerable. The basin's forests, wetlands, and beaches shelter a variety of wildlife. The basin provides habitat for major fisheries and is a seasonal stopover for neotropical songbirds. Rare reptiles, birds, shellfish, mammals, and insects live here — from the diamondback terrapin to the tiger beetle. However, the basin's wildlife habitat is dwindling as human activity increases.

Priority Communities

Mature forests provide diverse habitat for many species of native mammals, invertebrates, amphibians, reptiles, and birds, including migratory songbirds. Of the less than 60,000 acres of forests remaining in the basin, most are privately owned.

Forests of the basin include coniferous, hardwood, and mixed woodlands with a variety of woody and grassy understory plants. Though longevity is desirable in forests — with minimal human disturbance favoring these natural communities — virtually all basin forests have been harvested at least twice since the arrival of European settlers. With most of the basin's land area cleared and drained for agriculture and increasingly subject to residential development, human impact on basin plants and animals has been profound.

Wetlands serve a variety of ecological functions: they filter nutrients, sediments, and toxic chemicals from water; they minimize storm and tidal flooding; and they slow erosion by providing a buffer against tides and waves. Wetlands also serve as habitat for a variety of animal and plant species.

Constituting more than 39% of the basin, wetlands support Delaware's most diverse freshwater, brackish, and saltwater ecological communities. Although saline and brackish marshes may be most recognizable to the beach-goer, boater, or casual observer, this basin includes significantly more nontidal, freshwater wetlands. Arguably the rarest and most diverse freshwater wetlands in the state, acidic sea-level fen wetlands and interdunal swale wetlands are only found in Delaware in this basin.

Historically, the Inland Bays portion of the basin has lost substantial wetlands acreage due to development and agricultural land conversion. Although the rate of wetland destruction in the basin and statewide has slowed in recent years, an estimated 54% of Delaware wetlands has been lost since 1780.

Priority Species

Neotropical migrant songbirds breed in North America and migrate to the tropics each autumn. The coastal maritime forests and scrub shrub communities in the basin provide important habitat for migrating birds.

The beaches and dunes along Delaware's Atlantic Coast provide critical habitat for beachnesting birds, including the piping plover, least tern, common tern, black skimmer, and American oystercatcher, which are ranked as rare by the Delaware Natural Heritage Program. The piping plover is also federally listed as threatened. While these birds resided in healthy numbers in the 1960s, their numbers have declined in recent years. The Division of Parks and Recreation closes nesting beaches seasonally to reduce human disturbance.

The diamondback terrapin is a small- to medium-sized turtle that lives in estuarine marshes and bays. Although this reptile is still common in the basin, potential human impacts merit attention. Bulkheads and riprap make it difficult for females to find nesting sites. Turtles attempting to cross Route 1 in search of nesting habitat often are killed by automobiles. Commercial crab traps also pose a threat.

The Inland Bays/Atlantic Ocean Basin has a history of robust osprey populations. However, several factors have lowered their productivity, including lack of safe nesting sites, changes in local fish populations, and human disturbance.

A great blue heron hunts for bait fish in a tidal creek along the Inland Bays.

Many shorebirds depend on Delaware's Inland Bays for nesting habitat.

Two rare species of tiger beetle are found in the basin. These species — the beach dune tiger beetle and the little white tiger beetle — inhabit open dune habitats and have only been found in Cape Henlopen State Park. They are good indicators of the ecological integrity of beach and dune communities.

The Delmarva fox squirrel is found in mature hardwood and loblolly pine forests along streams and bays. Population declines due to loss of habitat caused this squirrel to be placed on the Federal Endangered Species list in 1967. The species was reintroduced to the Inland Bays/Atlantic Ocean Basin, but their numbers remain low.

Freshwater mussels live in the bottom sediments of freshwater streams, rivers, and ponds. They are the most endangered family of animals in the United States. Of the 13 species that occur in Delaware, 11 are rare or extremely rare. Freshwater mussels are important monitors of water quality.

Surf clams are commercially important clams that are found in the ocean surf to a depth of about 140 feet. Overharvesting led to a decline of this species along the Delaware coast, and there are concerns about recovery of surf clam populations. The sandy ridges that surf clams prefer are used as borrow sites for beach nourishment activities.

"Mother Earth has many children whom she loves and provides for equally. The four-leggeds, the winged beings, those who live and swim in Mother's blood, are brothers and sisters to the plant nations, the creepy-crawlies, the life too small to see, and us. We two-leggeds must consider the rest of our family in all of our thoughts and deeds."

— Charles Clark IV
Assistant Chief, Nanticoke Indian Tribe