

Beaufort Inlet

The fish and wildlife resources in and around Beaufort Inlet are as abundant and diverse as those at Bogue Inlet. The same federally-protected species that may be present in the Bogue Inlet area during various seasons are likely to use Beaufort Inlet as well.

The Beaufort Inlet area has been designated with numerous management characterizations reflecting its high resource value. The Natural Heritage Program has delineated several Significant Natural Heritage Areas within the project area, including the Rachel Carson National Estuarine Research Reserve (NERR) to the northeast and Shackleford Banks to the east (Figure 1). Tidal inlets have also been designated as HAPC for red drum, penaeid shrimp and the snapper-grouper complex by the SAFMC. The Service has designated critical habitat for overwintering piping plovers at the Rachel Carson NERR and Shackleford Banks. Shackleford Banks forms the southernmost portion of Cape Lookout National Seashore and has also been designated a Wilderness Area. The United States Congress has designated Fort Macon State Park and portions of Beaufort Inlet as OPA NC-04P and L03AP respectively under the Coastal Barrier Resources Act, coincident with the boundaries of the NERR and Cape Lookout National Seashore.

The Newport River that drains into Beaufort Inlet contains anadromous fish spawning areas upriver from Morehead City. Designated fishery nursery areas within the tidal influence of Beaufort Inlet include Calico Creek, Crab Point Bay, the Newport River, Harlow Creek, Oyster Creek, Bell Creek, Eastman Creek, Ware Creek, and Russell Creek. Within the North River estuary to the northeast, fishery nursery areas have been delineated in the North River, Turner Creek, Ward Creek, North and South Leopard Creeks, and Whitehurst Creek. The inlet also provides a passageway for fish eggs and larvae to move from offshore spawning areas into estuarine nursery areas. Research conducted by scientists at the National Oceanic and Atmospheric Administration (NOAA) in Beaufort have documented 129 different species of larval fish in and around Beaufort Inlet to date, finding larvae present during every month of the year.

Commercial fishery landings from the Newport River/Beaufort Inlet area is a million dollar industry, with an average of 683,550 lbs for an annual value of \$ 1,065,455 from 1994 to 2001 (Table 10). Over two dozen fishery species have been commercially harvested each year from this system. Blue crab, shrimp, hard clams, Eastern oyster (*Crassostrea virginica*), mullet, and southern flounder are the largest annual catches by weight from the Newport River and Beaufort Inlet area (NC DMF, unpublished data).

The tidal shoal system within Beaufort Inlet provides spawning habitat for blue crab and red drum. The Rachel Carson NERR is an example of how the flood tidal shoal system can generate abundant marsh and bare sand areas in addition to SAV. This marsh and island complex has been designated a Significant Natural Heritage Area due to its high resource value. Adjacent Fort Macon State Park is now managed by the state and contains high archaeological value as an historic military defense site in coastal North Carolina. Beaufort Inlet has more recently received scientific attention as a shipwreck believed to be Blackbeard's *Queen Anne's Revenge* has been

Table 10. Commercial fisheries landings from the Newport River and Beaufort Inlet, 1994 to 2001. Data are provided by the North Carolina Division of Marine Fisheries and represented in state fiscal years (July 1 through June 30).

Year	Average Landings (lbs)	Average Value
1994	665,967	\$ 842,699
1995	719,646	\$ 1,106,498
1996	595,451	\$ 1,043,672
1997	797,723	\$ 1,331,542
1998	671,065	\$ 986,170
1999	831,429	\$ 1,202,862
2000	615,374	\$ 936,470
2001	571,743	\$ 1,073,728
1994-2001 Average	683,550	\$1,065,455

discovered on the southwestern portion of the inlet’s ebb tidal delta. Other shipwrecks adjacent to Beaufort Inlet are currently being investigated for archaeological significance and recovery.

Tidal shoals that are subaerial during low tides are valuable foraging and roosting habitat for migratory shorebirds and colonial waterbirds. Some of these shoals are supratidal even at high tide and provide additional habitat to numerous species of shorebirds and colonial waterbirds species. In 1998, the Beaufort Inlet system encompassed approximately 463 acres of shoals and inlet shoulders available to shorebirds and colonial waterbirds (Figure 20). This was the fifth largest flood tidal shoal system in North Carolina with only Cape Fear River, New Drum, Oregon, and Ocracoke Inlets exceeding it. Overall, Beaufort Inlet provided the sixth largest inlet complex in North Carolina in terms of habitat available to migratory shorebirds and waterbirds in 1998.

The inlet shorelines on both Beaufort Inlet and Shackleford Banks have supported bird nesting habitat for black skimmer, common tern, Gull-billed tern and least tern (NC WRC, unpublished data). During migratory periods, thousands of birds are commonly found in and around the inlet. Birds commonly seen in Beaufort Inlet during the winter months include common loon, double-crested cormorants (*Phalacrocorax auritus*), red-breasted mergansers, northern gannets, Bonaparte’s gulls (*Larus philadelphia*), Great blue heron (*Ardea herodias*) and Black-crowned night-herons (*Nycticorax nycticorax*). Willets, ruddy turnstone (*Arenaria interpres*), sanderlings and various gull species are often found along the beaches of Fort Macon State Park during the winter. Avian use of the inlet shoreline at Fort Macon State Park can attract birds not regularly seen at North Carolina inlets (e.g., purple sandpiper (*Calidris maritima*), scoters, eiders, ducks) because of the several groins and jetty (Figure 21) (Fussell 1985).



Figure 20. A 1998 aerial photograph of Beaufort Inlet shows Fort Macon and Brandt Island to the left, Shackleford Banks to the right, and the Rachel Carson NERR to the upper right seaward of the Town of Beaufort. Photo courtesy of US Geological Survey.



Figure 21. Fort Macon State Park at Beaufort Inlet has several groins (foreground) and a rubble mound jetty (background) stabilizing its inlet shoreline. Photo taken May 29, 2002, by USFWS.

The western side of Beaufort Inlet supports willets, ruddy turnstone, black-bellied plover (*Pluvialis squatarola*), sanderlings, gulls and terns most commonly during the summer. Spring and fall migratory periods bring red knot, whimbrel (*Numenius phaeopus*), Western sandpiper (*Calidris mauri*), scoters, common loon, red-throated loon, heron, egret, and White ibis (*Eudocimus albus*) (Fussell 1985). Gull-billed terns, black skimmers and terns have nested in the past at Beaufort Inlet.

Within the inlet itself, Radio Island and the Rachel Carson NERR both generate diverse birdwatching. At the south end of Radio Island, Fussell (1985) recommends looking for common loon, brown pelican, double-crested cormorant, red-breasted merganser, gulls, terns, ruddy turnstone, sanderlings, American oystercatcher, purple sandpiper, and various seabirds following storms. At the Rachel Carson NERR, which Fussell (1985) refers to as the Bird Shoal Complex for its avian diversity, common shorebird species include American oystercatcher, semipalmated plover, ruddy turnstone, willet, whimbrel, Greater yellowlegs, Short-billed dowitcher, Marbled godwit, dunlin, red knot, Long-billed curlew (*Numenius americanus*), Western sandpiper, semipalmated sandpiper, sanderling, piping plover, black-bellied plover, and Wilson's plover. Waterbirds regularly seen at the Rachel Carson NERR are black tern, common tern, sandwich tern, black skimmer, cormorant, Glaucous gull, Iceland gull, Lesser Black-backed gull, Bonaparte's gull, Little gull, brown pelican, Black-crowned night-heron, and White ibis (Fussell 1985).

Beaufort Inlet is one of the most managed in North Carolina (see Appendix F). Both inlet shorelines have historically functional jetties and groins. The jetty on Shackleford Banks is currently landlocked as the inlet migrated to the west in the last 50 years (Moslow and Heron 1994). The State Port at Morehead City has required a navigational channel approximately 45 feet deep through the Newport River estuary and Beaufort Inlet. The beaches along Fort Macon State Park periodically receive dredged material disposal from maintenance dredging of the navigation channels, most recently during the early spring of 2002. The U.S. Coast Guard has a base on the north side of Fort Macon State Park; the shoreline of this base is stabilized with riprap, groins and bulkheads. Interior islands have been created by dredged material and/or artificially stabilized. The mainland shoreline at the State Port is entirely bulkheaded, and large portions of Radio Island are stabilized. The northwestern shorelines adjacent to Beaufort Inlet are heavily industrialized while the northeastern shorelines along the Highway 70 causeway and Beaufort waterfront are filled with marinas and associated bulkheads.