

# Wildlife Conservation on the Outer Banks, North Carolina

*Protecting the Coast's Most Vulnerable Wildlife*

Outer Banks, North Carolina



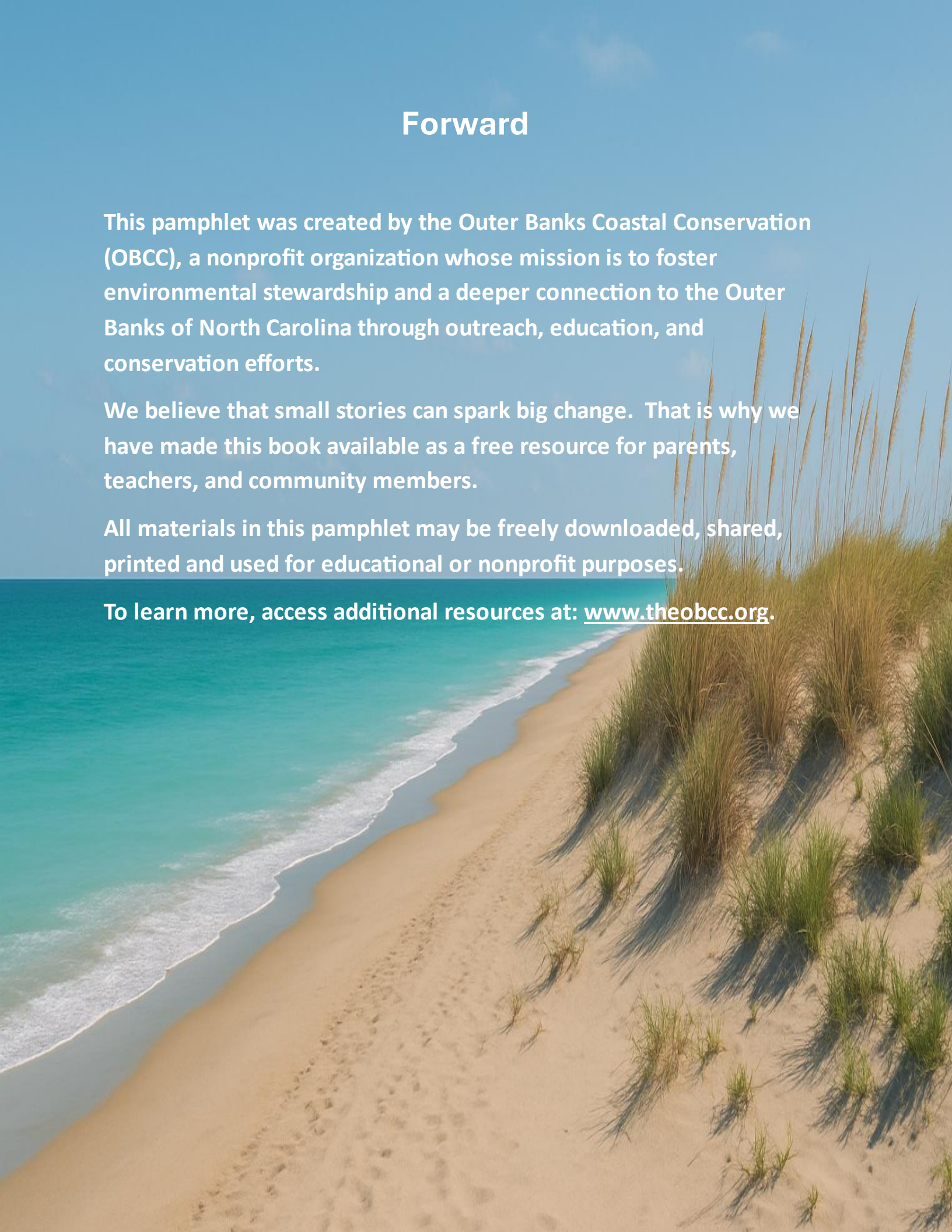
# Forward

This pamphlet was created by the Outer Banks Coastal Conservation (OBCC), a nonprofit organization whose mission is to foster environmental stewardship and a deeper connection to the Outer Banks of North Carolina through outreach, education, and conservation efforts.

We believe that small stories can spark big change. That is why we have made this book available as a free resource for parents, teachers, and community members.

All materials in this pamphlet may be freely downloaded, shared, printed and used for educational or nonprofit purposes.

To learn more, access additional resources at: [www.theobcc.org](http://www.theobcc.org).





# Introduction

Stretching like a slender ribbon between the Atlantic Ocean and the mainland, North Carolina's Outer Banks are a living laboratory of barrier-island ecology. These dynamic islands shift and reshape with the tides, supporting an intricate web of coastal habitats — beaches, dunes, marshes, and maritime forests — that shelter some of the East Coast's rarest wildlife.

But this natural wonder is also fragile. Centuries of human development, rising seas, stronger storms, and increased visitation have placed enormous pressure on native species that depend on these narrow strips of sand and water. From the elusive red wolf to the tireless sea turtle, every species plays a role in maintaining the delicate balance of life along the coast.

This guide highlights several of the Outer Banks' most at-risk animals, explains why they matter, and outlines practical ways each of us can help protect them.



# Sea Turtles

Five species of sea turtles nest or forage along the Outer Banks, all protected under the U.S. Endangered Species Act. Key Species:

- Loggerhead Turtle (*Caretta caretta*) – the most frequent nester on OBX beaches.
- Green Turtle (*Chelonia mydas*) – named for its greenish body fat, not its shell.
- Kemp's Ridley Turtle (*Lepidochelys kempii*) – the rarest and most endangered.
- Leatherback Turtle (*Dermochelys coriacea*) – the giant of the sea turtle world.
- Hawksbill Turtle (*Eretmochelys imbricata*) – rarely seen, critically endangered.

Threats: Beachfront lighting disorients hatchlings, while fishing nets, plastic debris, and vehicle traffic cause injuries and death.

## How You Can Help:

- Turn off or shield beachfront lights from May through October.
- Fill in holes and flatten sand structures before leaving the beach.
- Keep a respectful distance from marked nests and emerging hatchlings.

Why It Matters: Sea turtles are living links between the ocean and the shore. When females nest, they transfer vital marine nutrients to dune ecosystems, enriching beach vegetation that stabilizes sand and prevents erosion. Offshore, sea turtles help maintain healthy seagrass beds and coral reefs — critical nurseries for fish and crustaceans. Their survival is directly tied to the health of the ocean and coastlines that humans also depend on. Protecting sea turtles means safeguarding water quality, fisheries, and the very dunes that shield our communities from storms and rising seas.



# Piping Plover

This tiny, sand-colored bird blends so well with its environment that it's often overlooked — until its soft, piping call drifts over the surf.

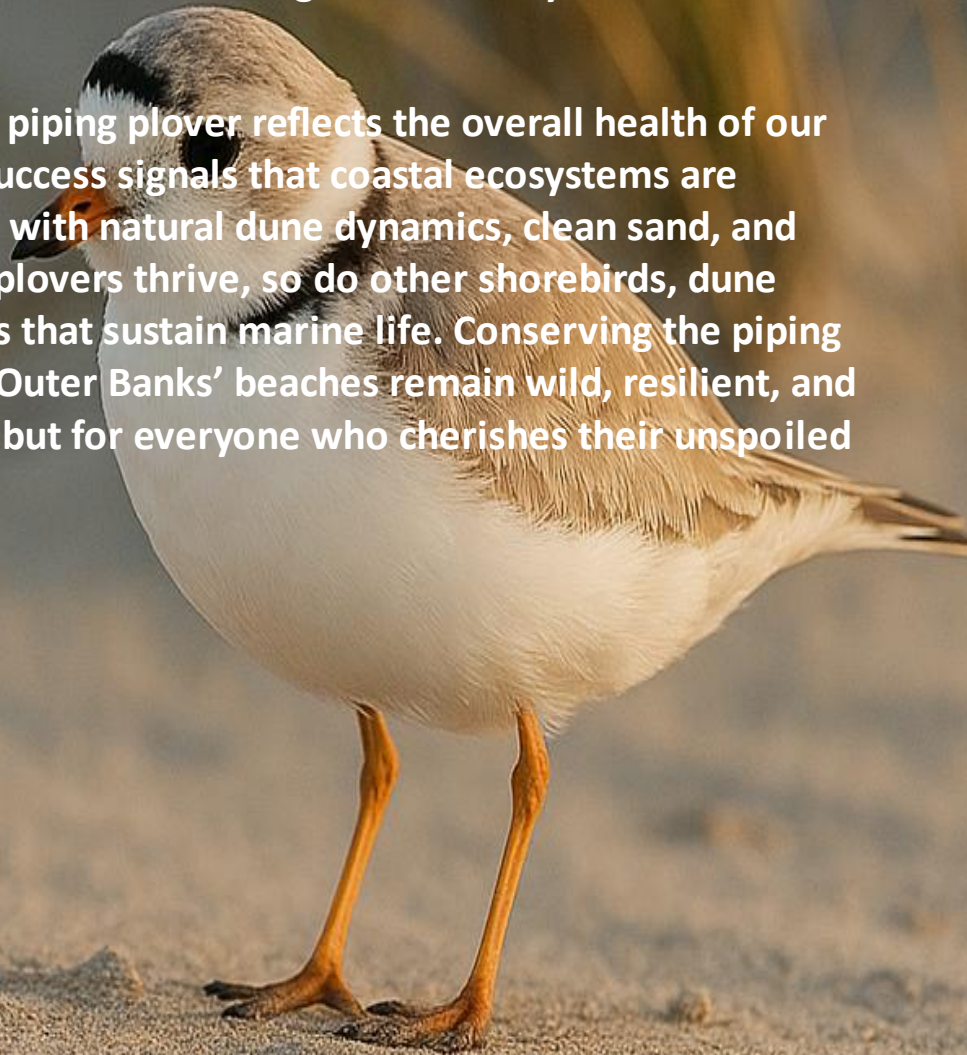
Status: Threatened (Federal); Endangered (North Carolina)

Threats: Loss of nesting habitat, disturbance from beachgoers, off-leash dogs, and storm erosion.

How You Can Help:

- Respect fenced nesting zones and “bird closure” signs.
- Keep dogs leashed.
- Avoid flying kites or drones near nesting areas — they resemble predators to plovers.

Why It Matters: The delicate piping plover reflects the overall health of our barrier beaches. Its nesting success signals that coastal ecosystems are functioning as they should — with natural dune dynamics, clean sand, and minimal disturbance. When plovers thrive, so do other shorebirds, dune vegetation, and invertebrates that sustain marine life. Conserving the piping plover helps ensure that the Outer Banks' beaches remain wild, resilient, and alive — not only for wildlife, but for everyone who cherishes their unspoiled beauty.





# Red Wolf

Once ranging from Texas to Pennsylvania, the red wolf (*Canis rufus*) now survives only in eastern North Carolina's Alligator River and Pocosin Lakes National Wildlife Refuges.

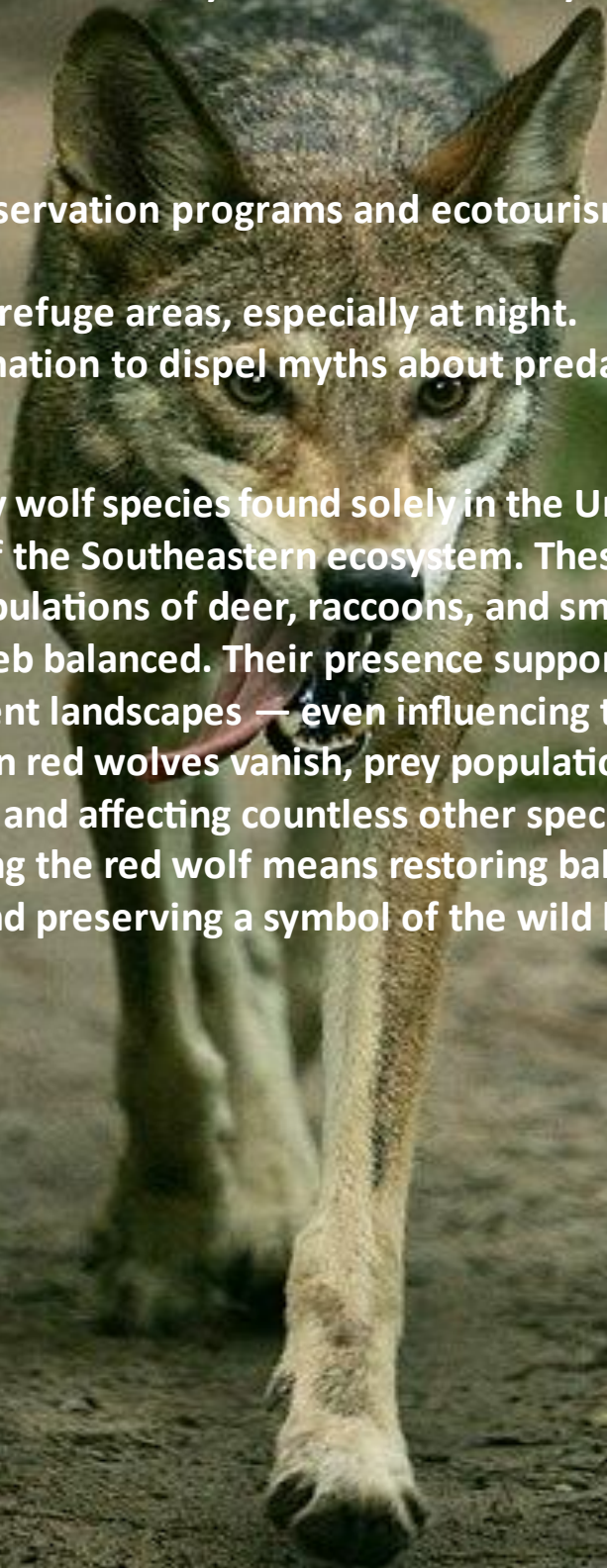
Status: *Critically Endangered* — fewer than 25 remain in the wild.

Threats: Habitat loss, vehicle strikes, hybridization with coyotes, and illegal shootings.

How You Can Help:

- Support red wolf conservation programs and ecotourism that funds them.
- Drive slowly through refuge areas, especially at night.
- Share accurate information to dispel myths about predators' roles in healthy ecosystems.

Why It Matters: As the only wolf species found solely in the United States, the red wolf is a cornerstone of the Southeastern ecosystem. These apex predators help regulate populations of deer, raccoons, and small mammals, keeping the coastal food web balanced. Their presence supports healthier vegetation and more resilient landscapes — even influencing the stability of wetlands and forests. When red wolves vanish, prey populations surge, altering plant communities and affecting countless other species that depend on those habitats. Protecting the red wolf means restoring balance to an entire coastal ecosystem and preserving a symbol of the wild heritage of the Outer Banks.





# North Atlantic Right Whale

Once common along the Atlantic Coast, the North Atlantic Right Whale (*Eubalaena glacialis*) now teeters on the brink of extinction — with fewer than 360 individuals remaining worldwide. These gentle giants migrate seasonally along the Eastern Seaboard, traveling past the Outer Banks each winter and spring as they move between northern feeding grounds and southern calving areas.

Status: Endangered (Federal and North Carolina)

Habitat: Offshore waters of the Atlantic Ocean, especially near the continental shelf and shallow coastal zones.

Threats:

- Vessel strikes — Ship collisions are the leading cause of death.
- Entanglement — Fishing ropes and gear can cut into blubber, causing infection or drowning.
- Noise pollution — Underwater noise interferes with communication and navigation.
- Climate change — Altered ocean currents shift plankton, their primary food source.

How You Can Help:

- Support policies and organizations that promote vessel speed limits and whale-safe fishing gear.
- Report any whale sightings or entanglements to NOAA or local marine authorities.
- Choose sustainable seafood from fisheries that minimize gear impact on marine mammals.
- Raise awareness — share the story of the world's most endangered great whale.

Why It Matters: Right whales play a crucial ecological role in the North Atlantic, helping regulate plankton dynamics and nutrient cycling. Their presence along the Outer Banks underscores the global importance of these waters — a vital migration corridor linking the health of our local coast to the fate of an entire species.



# Eastern Black Rail

Barely larger than a sparrow and rarely seen even by seasoned birders, the Eastern Black Rail (*Laterallus jamaicensis jamaicensis*) is one of North America's most elusive birds. It spends its life hidden among dense high marsh grasses, venturing out mostly at night. Its distinctive, rolling “kickee-doo” call may be the only sign of its presence.

Status: Threatened (Federal 4(d) Rule); Endangered (North Carolina)

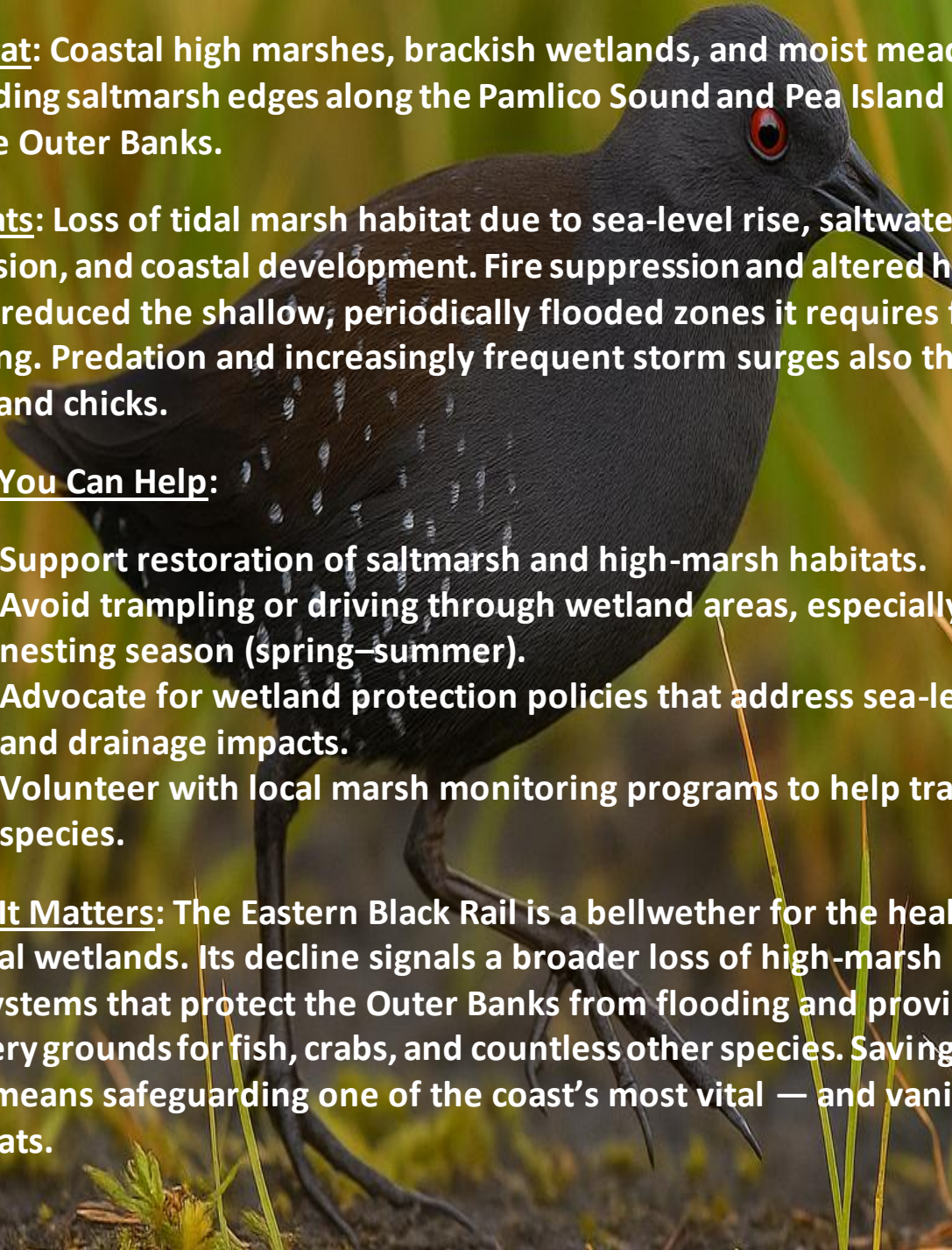
Habitat: Coastal high marshes, brackish wetlands, and moist meadows — including saltmarsh edges along the Pamlico Sound and Pea Island marshes of the Outer Banks.

Threats: Loss of tidal marsh habitat due to sea-level rise, saltwater intrusion, and coastal development. Fire suppression and altered hydrology have reduced the shallow, periodically flooded zones it requires for nesting. Predation and increasingly frequent storm surges also threaten eggs and chicks.

How You Can Help:

- Support restoration of saltmarsh and high-marsh habitats.
- Avoid trampling or driving through wetland areas, especially during nesting season (spring–summer).
- Advocate for wetland protection policies that address sea-level rise and drainage impacts.
- Volunteer with local marsh monitoring programs to help track rare species.

Why It Matters: The Eastern Black Rail is a bellwether for the health of coastal wetlands. Its decline signals a broader loss of high-marsh ecosystems that protect the Outer Banks from flooding and provide nursery grounds for fish, crabs, and countless other species. Saving this tiny bird means safeguarding one of the coast's most vital — and vanishing — habitats.





# West Indian Manatee



The West Indian Manatee (*Trichechus manatus*), often called the “sea cow,” is a warm-blooded marine mammal known for its calm, curious nature and slow movements. Although most common in Florida and the Caribbean, manatees venture northward during the warmer months, occasionally visiting North Carolina’s estuaries and inlets — including those near the Outer Banks — in search of seagrass beds and sheltered waters.

**Status:** Threatened (Federal); Special Concern (North Carolina)

**Habitat:** Shallow coastal waters, estuaries, and tidal rivers with abundant seagrass and aquatic vegetation.

**Threats:**

- Boat collisions causing fatal injuries.
- Loss of seagrass beds due to pollution and algal blooms.
- Cold stress from sudden drops in water temperature.
- Entanglement in fishing lines and marine debris.

**How You Can Help:**

- Follow posted “Slow Speed” and “No Wake” zones in coastal waters.
- Dispose of fishing line properly to prevent entanglement.
- Report manatee sightings to the U.S. Fish & Wildlife Service or local wildlife agencies.
- Support water-quality and seagrass restoration efforts in North Carolina estuaries.

**Why It Matters:** Manatees are gentle ambassadors of coastal conservation. Their presence in North Carolina’s waterways is a hopeful sign of improving water quality and habitat connectivity along the Atlantic coast. Protecting these peaceful visitors also safeguards the broader health of the estuaries, inlets, and seagrass meadows that sustain countless other marine species.



# Roseate Tern

Graceful and striking, the Roseate Tern (*Sterna dougallii*) is one of the most beautiful seabirds of the Atlantic coast. Recognizable by its soft rose-tinted breast and long, forked tail, this sleek bird nests in small, scattered colonies along barrier islands and remote sand spits, including a few sites near the Outer Banks.

Status: Threatened (Federal); Endangered (North Carolina)

Habitat: Coastal barrier islands, sandy beaches, and nearshore waters — often nesting alongside Least and Common Terns.

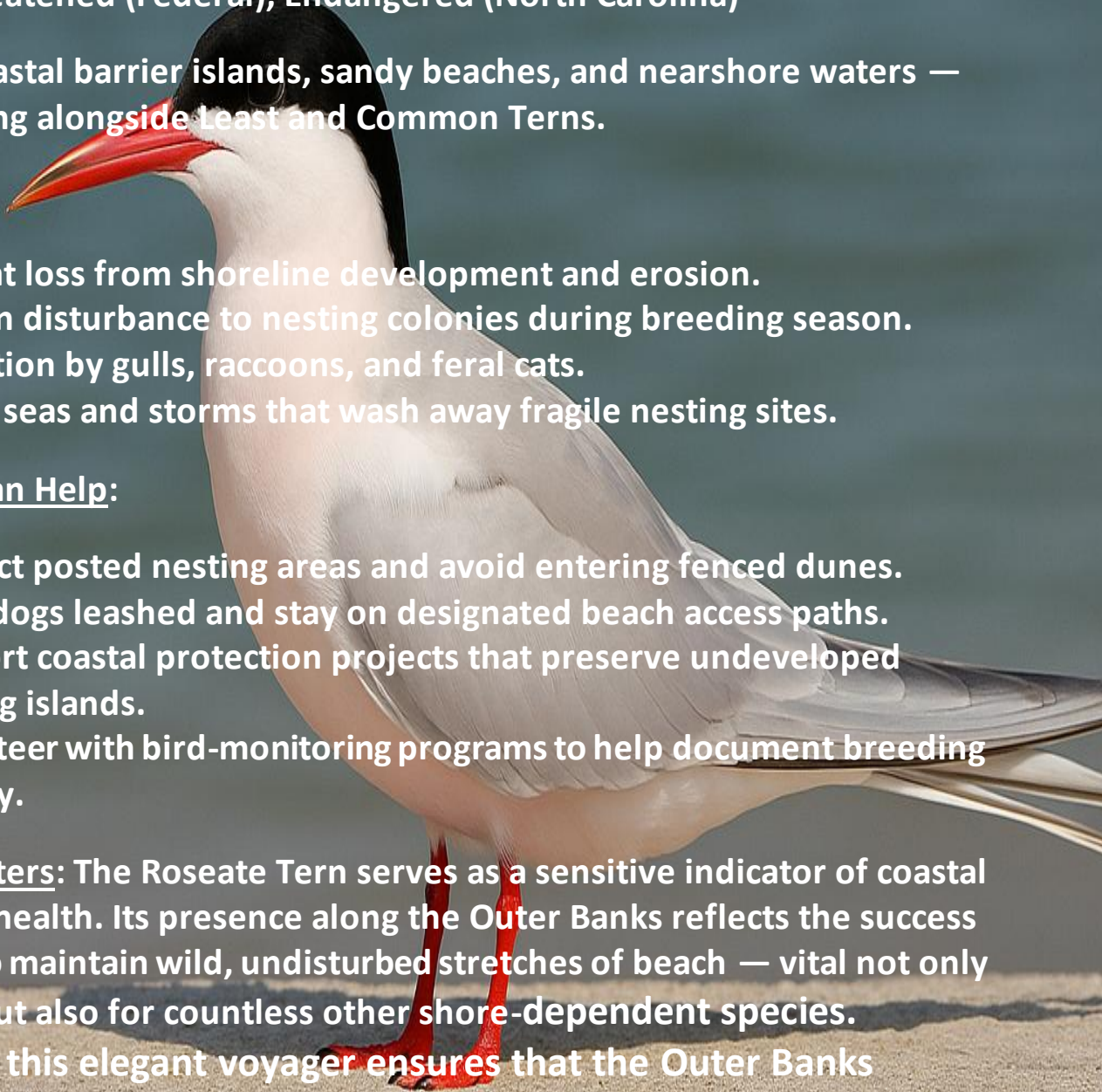
Threats:

- Habitat loss from shoreline development and erosion.
- Human disturbance to nesting colonies during breeding season.
- Predation by gulls, raccoons, and feral cats.
- Rising seas and storms that wash away fragile nesting sites.

How You Can Help:

- Respect posted nesting areas and avoid entering fenced dunes.
- Keep dogs leashed and stay on designated beach access paths.
- Support coastal protection projects that preserve undeveloped nesting islands.
- Volunteer with bird-monitoring programs to help document breeding activity.

Why It Matters: The Roseate Tern serves as a sensitive indicator of coastal ecosystem health. Its presence along the Outer Banks reflects the success of efforts to maintain wild, undisturbed stretches of beach — vital not only for terns, but also for countless other shore-dependent species. Protecting this elegant voyager ensures that the Outer Banks remain a sanctuary for both wildlife and wonder.





# Rufa Red Knot

The Rufa Red Knot (*Calidris canutus rufa*) is one of nature's most remarkable travelers. Each year, this small, chestnut-colored shorebird completes an epic migration of nearly 10,000 miles — flying from the southern tip of South America to Arctic breeding grounds, with key stopovers along the Atlantic coast, including the barrier islands of North Carolina's Outer Banks.

Status: Threatened (Federal); Special Concern (North Carolina)

Habitat: Sandy beaches, tidal flats, and mudflats used as critical stopover feeding grounds during spring and fall migrations.

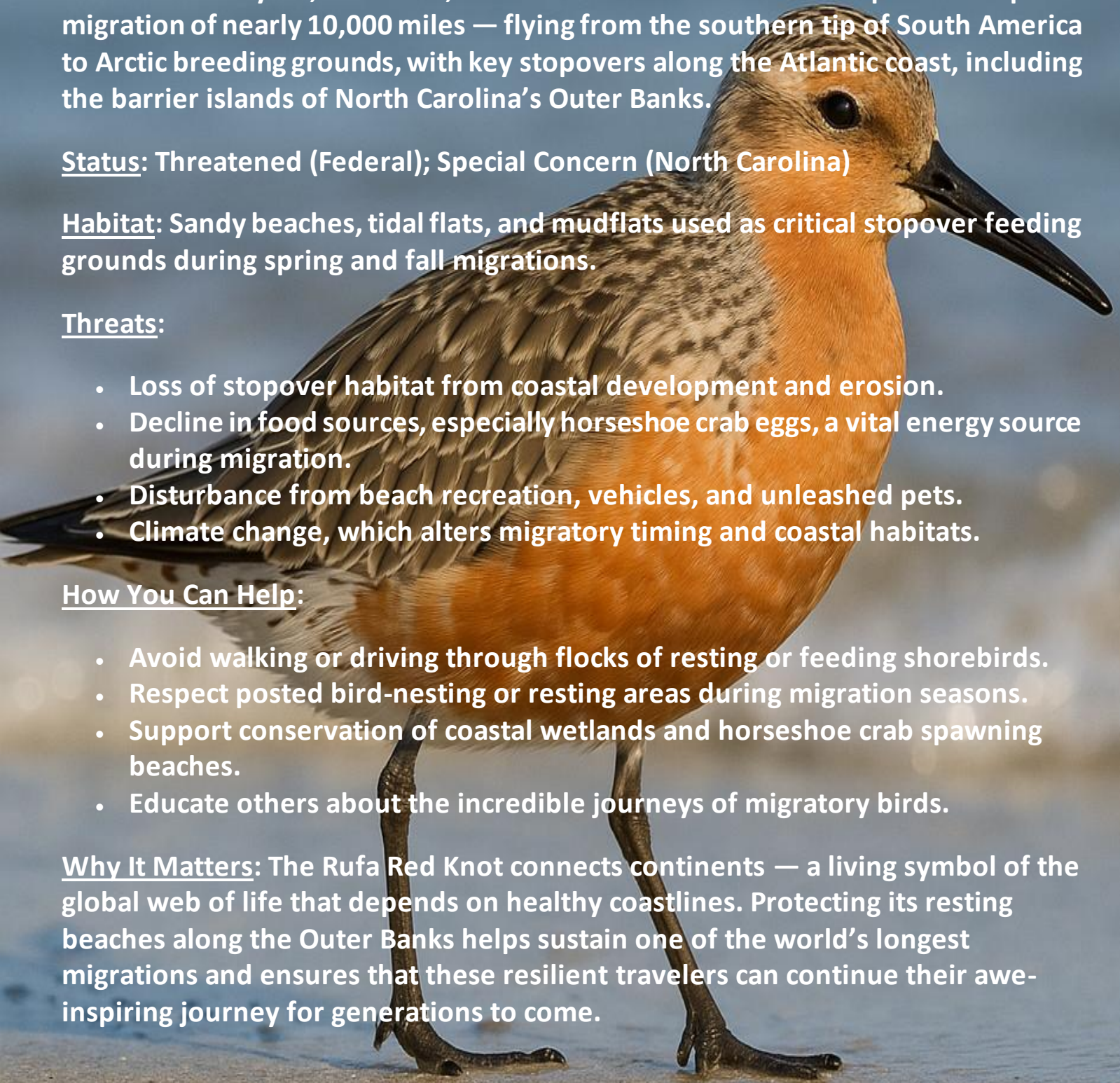
Threats:

- Loss of stopover habitat from coastal development and erosion.
- Decline in food sources, especially horseshoe crab eggs, a vital energy source during migration.
- Disturbance from beach recreation, vehicles, and unleashed pets.
- Climate change, which alters migratory timing and coastal habitats.

How You Can Help:

- Avoid walking or driving through flocks of resting or feeding shorebirds.
- Respect posted bird-nesting or resting areas during migration seasons.
- Support conservation of coastal wetlands and horseshoe crab spawning beaches.
- Educate others about the incredible journeys of migratory birds.

Why It Matters: The Rufa Red Knot connects continents — a living symbol of the global web of life that depends on healthy coastlines. Protecting its resting beaches along the Outer Banks helps sustain one of the world's longest migrations and ensures that these resilient travelers can continue their awe-inspiring journey for generations to come.





## Did You Know?

- The red wolf is the world's only wolf species found exclusively in the United States — and its last wild population lives right here in eastern North Carolina.
- A single female sea turtle can lay up to 120 eggs in one nest, and she may nest several times in a single season — but only about one in 1,000 hatchlings will survive to adulthood.
- Piping plover chicks can feed themselves just hours after hatching — but they rely on camouflage and careful parenting to survive on busy beaches.

- The North Atlantic right whale, one of the rarest animals on Earth, sometimes migrates through Outer Banks waters each winter and spring — mothers with calves often travel within just a few miles of shore.

- The Eastern Black Rail is so secretive that most sightings are by sound alone — birders recognize it by its distinctive “kickee-doo” call echoing through the high marsh at night.

- Manatees occasionally visit the sounds and inlets of the Outer Banks in summer months, following warm currents northward from Florida in search of lush seagrass beds.

- The Rufa Red Knot travels nearly 10,000 miles each year between South America and the Arctic — one of the longest migrations in the animal kingdom.

- Sea turtle tracks on the beach can tell scientists the species: loggerhead tracks form a comma-shaped pattern, while green turtles leave wide, symmetrical trails.

- When oysters filter water, a single adult can clean up to 50 gallons a day, improving water clarity and supporting countless other marine organisms.



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