# In case of emergency, call 911 then Kennedy Space Center Security 321/867 2121

The Staff and Volunteers of Merritt Island National Wildlife Refuge welcome you to Black Point Wildlife Drive.

Please enjoy your time here but keep in mind these important refuge policies:

- The Drive is open year round from sunrise to sunset, except during NASA restricted operations.
- Vehicles over 29 feet are prohibited.
- Walking and cycling are discouraged because of safety concerns.
- Fishing, crabbing or boat launching are not allowed from the drive.
- Stop anywhere you wish, but leave room for others to pass, as the drive is a one way
- Gated trails may be accessed by hiking, but not with vehicles.
- Pets are permitted on hiking trails, but must be on a leash which does not exceed six feet.

## Stop 1: National Wildlife Refuges – Habitat for Wildlife

National Wildlife Refuges provide homes for wildlife by preserving and managing habitat, allowing wildlife to lead a natural and wild existence. Humans and wildlife need the same things for survival: food, water, shelter, and space. If habitat lacks any of these, wildlife cannot exist.

While some wildlife species are year round residents, others only use the refuge during migration or as wintering or breeding grounds. The brackish marsh located on your left is an impounded marsh. During your drive you will learn about habitat management techniques including controlling water levels in impoundments, prescribed fire, planting native plants, and removal of exotic animals and plants.

### **Stop 2: Wildlife Viewing Tips and Etiquette**

Move slowly and quietly: Drive slowly and quietly and keep noise to a minimum. Slamming doors, loud music or voices can startle wildlife. Your car is a great "blind" and staying in your car will greatly increase your observation opportunities, while getting out of your car for a closer view or to take pictures may actually scare away your subject.

Wildlife send clear signals when you are too close (raise head, stop feeding, appear nervous, and move away) so it is imperative that you maintain proper distance for your safety.

### **Stop 3: Water Level Management for Mosquito Control**

By the time the refuge was established in 1963, the area around the drive was already impounded for mosquito control. Prior to dike construction, the marshes provided exposed mud flats, an ideal habitat for the Salt Marsh Mosquito to lay as many as 45,000 eggs per square foot or two billion eggs per acre. Impounding water behind dikes maintains flooded conditions during peak mosquito breeding season (May-September), helping curtail mosquito populations.

### Stop 4: Take a Walk on the Wild Side

Take a walk on the ¼ mile round trip Wild Bird Hiking Trail to view wildlife from blinds and through a viewing scope. Walk quietly and listen and you may hear a symphony of nature's sounds. Look for signs left behind by wildlife: tracks, scat (droppings), or feathers.

At the parking area look at water control structures connecting Boggy Creek to the Indian River Lagoon to see how refuge staff controls water levels. Water control structures, underground pipes that connect an impounded marsh with the Indian River Lagoon, have boards installed on the ends to maintain specific water levels.

# **Stop 5: Life Along the Edge**

The water control structures are left open year-round to allow entry of lagoon waters. When the water recedes, it creates mud flats for a variety of shorebirds.

Along the roadside, look for wildflowers: Indian Blanket, Dune Sunflower, and Spanish Needles. Wildflowers provide nectar and resting areas for important pollinators such as moths, butterflies and bees.

Shrubs along the roadsides provide habitat for small songbirds such as the Common Yellowthroat and during winter months Savannah Sparrows and Palm Warblers.

### Stop 6: Life on the Mud Flats

The salt mudflats to your left provide great foraging for Sandpipers and Plovers, collectively called shorebirds. They feed on the various worms, clams, snails, shrimp and crabs burrowed beneath the soft mud blanket. Most shorebirds feed by sense of touch, using sensitive bills to probe for food in the mud.

Look overhead for aerial-searching birds such as Forster's and Royal Terns, which visually spot fish and dive down to capture them.

### **Stop 7: Shallow Water Management**

The impoundment on your right is managed at a depth of 6-18 inches, benefitting the widest range of plant species, one of which is Wigeongrass.

Plants provide food for waterfowl as well as habitat for many fish and other aquatic animals. Refuge biologists keep water levels in some impoundments high, some low, some saltier and some fresher. At times water levels are either drawn down or raised to provide habitat for a specific species.

### Stop 8: On the Move, Mass Migration

The U.S. Fish and Wildlife Service maintains National Wildlife Refuges along historic migratory routes in the U.S., providing feeding, resting stops and over-wintering grounds for millions of migratory birds. Merritt Island NWR is located along the Atlantic Flyway where, each winter, thousands of waterfowl travel from breeding grounds in the Prairie Pothole Region to winter at the Refuge.

This refuge, a key wintering area in Florida, supports wintering populations of ducks, coots, gulls, terns, raptors and songbirds. Look for the arrival of some species as early as July and August with peak populations occurring in January and February. Northward migration begins in early March but varies for different species.

### Stop 9: Cruickshank Trail and Rest Area

Park, stretch your legs and take a short walk to the observation tower or the wheelchair accessible observation platform to get a closer view of the marsh. Look for anhinga perched in the mangroves and American alligators basking in the sun. In spring and summer search the mangroves east of the parking lot for nesting green herons and boat-tailed grackles.

Walk the five mile Cruickshank Hiking Trail loop named after Allan D. Cruickshank, a wildlife photographer, writer and naturalist who was instrumental in establishing the Merritt Island NWR. Please use caution when walking Cruickshank Trail. Take plenty of water, insect repellent, sunscreen and rain gear.

### **Stop 10: Restoration of the Marsh**

The marsh on your left was restored by removing the dike separating the marsh from the lagoon. This marsh is one of the last places the dusky seaside sparrow was seen on Merritt Island NWR before it disappeared in 1977. The natural salt marshes of Merritt Island and the St. Johns River west of Titusville were once home to this non-migratory songbird and the only place this sparrow was ever observed. However, the diking of the natural salt marshes for mosquito control eliminated the habitat required by the bird, which was declared extinct as of December 1990.

### Between Stops 10 and 11 – Be on the lookout for Alligators!

### **Stop 11: Eagles on the Refuge**

The tall pine trees to your right provide an excellent location for eagles to nest. The sturdy pines are located close to water where the eagles can find fish and waterfowl, their primary food sources, to feed hungry chicks. Over the years, hurricanes have blown down nests in these trees, but the eagles return and rebuild each winter. The eagles' strong fidelity to this nest site is a testament to the quality of the habitat. When eagles use this site, they have a good chance of successfully fledging their chicks. In recent years, the number of eagles observed nesting on the Refuge has increased, reaching the highest levels in over forty years.

## **Stop 12: Edge Effect and Prescribed Fire Management**

You will notice a change in habitat from wetland to pine flatwoods. This area, where two or more habitats meet, is called an ecotone. The adjoining habitats provide wildlife easier access to resources. A great example of an ecotone on the Refuge is the pine flatwood habitat which provides bald eagle nesting area, while the adjacent lagoon provides its hunting grounds.

You may also see many tree trunks showing remnants of fire or "fire scars". Florida is the lightning strike capital of North America and many of its habitats are fire dependent, meaning they require periodic burning to maintain the health and structure of the existing plant community. Without fire, the plant community changes and those animals that depend on it can no longer survive. To manage for people's safety and maintain habitat structure, the Refuge uses prescribed fire.

