

## MMM4 Field Trip #1: Mangrove and Marsh Restoration Tour

Over 12,000 ha of mangrove forest and tidal marsh along the central Florida east coast have been successfully restored over the last 40 years. This includes physical removal of dredged material deposits (spoil areas) down to wetland elevations in excavated and filled areas of wetlands for mostly natural recolonization, the reconnection and management of diked mosquito control wetland areas to continue to control mosquitoes while allowing seasonal hydrologic restoration, return of fish use of to these areas, and again natural recolonization by mangroves and marsh plants (see Figures 1 and 2). These programs have emphasized the ability of mangroves and marsh species to undergo natural secondary succession with limited or no planting, a key principal in the Ecological Mangrove Rehabilitation (EMR) program developed over recent decades and summarized in the recently released Ecological Mangrove Rehabilitation Manual (Lewis and Brown 2014). This bus trip will highlight these successfully restored areas, featuring visits to the [North Peninsula State Park](#) in Volusia County, Florida and the [Merritt Island National Wildlife Refuge](#) in Titusville.

**PLEASE NOTE: Participants could potentially get wet and muddy during site visits and should wear appropriate clothing and footwear, bring sunscreen and bug spray.**

<i>Lunch, water and cold drinks will be provided.</i> <b>LOCATION:</b>	<a href="#">North Peninsula State Park</a> (NPSP) and <a href="#">Merritt Island National Wildlife Refuge</a> (MINWR)
<b>ROUTE:</b>	Travel by bus to North Peninsula State Park, view restoration sites, travel to Merritt Island NWR to view other restoration sites and have lunch, bus back to hotel.
<b>ROUTE LENGTH:</b>	220 miles round trip
<b>DEPART/RETURN:</b>	Depart hotel at 8:00 a.m. – Arrive back at hotel at approximately 5:30 p.m.
<b>TRAVEL TIME TO SITES:</b>	1.5 hour to NPSP, 2 hours to MINWR, 2.5 hour return trip
<b>TIME AT SITES:</b>	3 hours plus lunch (30 minutes)
<b>TOTAL TRIP TIME:</b>	9 hours, 30 minutes
<b>FIELD TRIP CAPTAINS:</b>	Robin Lewis, Laura Flynn and Cynthia Sapp, Coastal Resources Group
<b>SITE GUIDES:</b>	Ron Brockmeyer, Jorge Rey and Melinda Donnelly
<b>OTHER:</b>	Participants could potentially get wet and muddy during site visits and should wear appropriate clothing and footwear, bring sunscreen and bug spray. Lunch, water and cold drinks will be provided.
<b>MAXIMUM ATTENDANCE:</b>	50 people
<b>DEADLINE TO REGISTER:</b>	June 24, 2016 or until trip is full.
<b>COST TO PARTICIPATE:</b>	\$80



Figure 1. Culvert installation to restore a hydrologic connection to impounded mangroves, Indian River Lagoon, Florida, USA.



Figure 2. Excavation underway to remove an external dike and restore a hydrologic connection to impounded mangroves, Merritt Island National Wildlife Refuge, Merritt Island, Florida, USA, 2007.