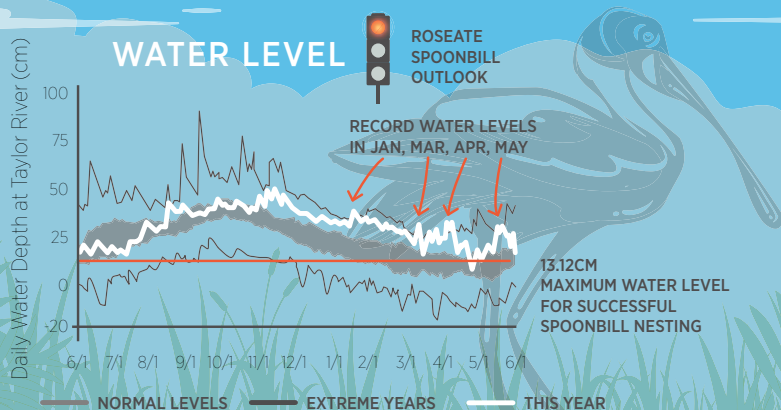


At the southern end of Everglades National Park, a series of sloughs convey freshwater to the Florida Bay estuary. Audubon researchers track these freshwater deliveries (or lack thereof) and their impacts on the ecology of Taylor Slough and the Bay.

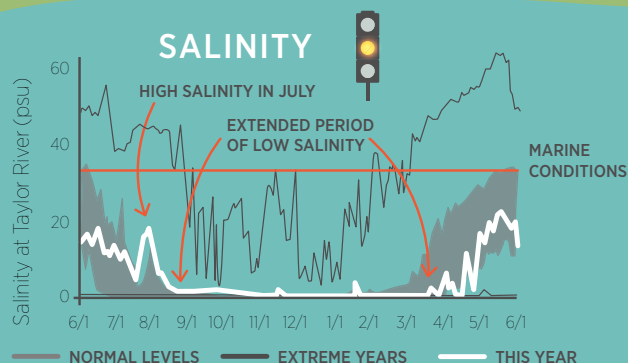
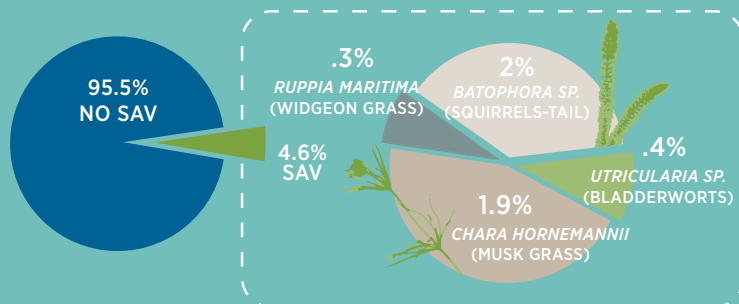


Taylor Slough experienced record-high water levels in January, March, April, and May of 2022, and overall experienced higher than normal water levels due to rapid sea level rise since 2000. The critical water level where prey fish accumulate in high numbers (around 13 cm) did not coincide with Roseate Spoonbill nesting and only dipped low for a short time in late April. Higher water levels occurred during historical Roseate Spoonbill nesting season, making it difficult for birds to successfully forage enough prey fish to feed their chicks.

Florida Bay used to receive four times more freshwater from the Everglades ecosystem than it does today. As a result, rainfall and water management make all the difference between a healthy Bay and a hypersaline one, which kills seagrass and the species that depend on it. Audubon uses our science to accelerate Everglades restoration projects to deliver much needed freshwater to Florida Bay.



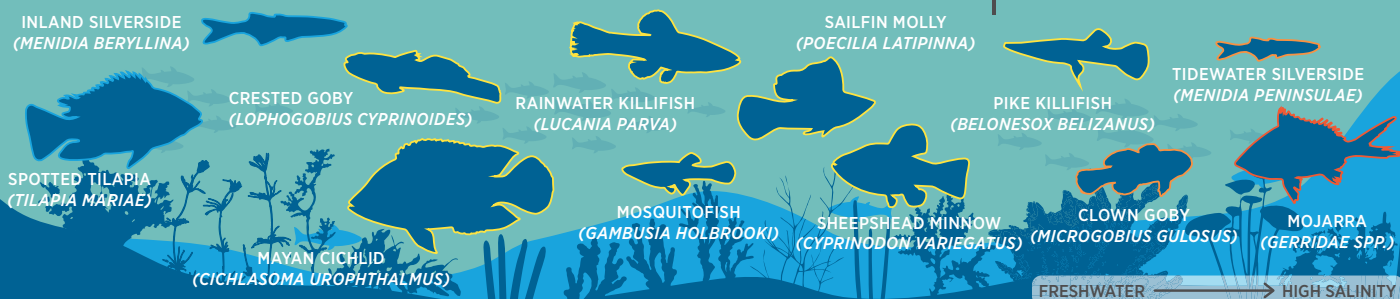
SUBMERGED AQUATIC VEGETATION (SAV) COVERAGE



Historically, Taylor Slough is a freshwater ecosystem. The salinity pulses through August to start the wet season negatively affected freshwater plant and fish communities that are sensitive to salt. However, the extended period of low salinity well into the late dry season (April) is an excellent indication that restoration efforts are having a positive impact on plants and prey fish.

The average cover of plants for 2021-22 season was 4.6% — lower than previous years as a result of the high salinity peak in July and the extended time period before freshwater conditions returned.

FISH SPECIES CAPTURED THIS YEAR AT TAYLOR SLOUGH



During regular sampling, 11% of fish caught were freshwater species, falling well short of the target of having freshwater species make up more than 40% of the catch but still a promising result given that freshwater species have made up less than 5% of the catch for most of the last decade. A long period of low salinity is vital for freshwater plant species like *Utricularia* and *Cladophora* to establish, as well as freshwater fish species like Bluefin Killifish, which were not caught this hydro year. This also highlights how important it is for restoration infrastructure and rainfall to keep salinity levels low, thus lengthening the period for these freshwater plants and fish to establish, which also benefits wading birds.