Loxahatchee Mitigation Bank Transformation

Turning This…

Into This…

DISTURBED CONDITION

Initially, the Bank had been drained of water and was heavily infested with Brazilian Pepper, a highly invasive species that spreads quickly, grows fast, and produces toxic seed by the millions. It blocks out the sun and smothers all native life from the marsh.

REMOVING THE PEPPER TREES

The initial step in restoring the site has been removing the massive infestation of Brazilian Pepper to open the site up and begin to create the basic conditions necessary to restore the marsh. You can expect to see both air and ground crew herbicide applicators at work throughout 2005.

REMOVING THE BIOMASS

Many of the Pepper trees have been killed; the next challenge is to remove the hulking mass of twigs, branches, and trunks. The most efficient way to accomplish this on a small scale is to knock the dead trees over with a sturdy track vehicle to create a uniform layer of sticks of mixed thickness so that they can be burned off.

PRESCRIBED BURNING

With safety in mind, a prescription to burn the downed Pepper trees has been written and will be executed in phases this year. In addition to removing the hulking mass of Pepper trees, the burning stimulates the germination and growth of native Florida marsh plants.

INUNDATION

Over the Summer months of 2005 the site will be inundated by pumping water from the adjacent canal. Inundating the site will help decompose the mass of Pepper trees naturally, so there will be less to burn next winter. The inundation will also help control other weeds and condition the soil for native plants.

FINAL CONDITION

Buy a good pair of binoculars because the site is fast becoming a native marsh. It will be home to countless birds, including rare varieties (we are already seeing them move in). It will also be home to a wide variety of some amazing wildlife and you will notice an array of wildflowers blooming throughout the year.

All About Burning

INITIAL BURN

If the conditions are right, we will do an initial burn in the south western portion of the site sometime in May, 2005. Fire control lines will be cut around this small area and Pepper trees will be compacted in mid April.

Burning this area now will make a larger burn further to the north possible next winter. It will give us a good opportunity to gage how well fire removes the Pepper trees, and see how many native seeds germinate that have been lying dormant in the soil. Burning will also enrich the soil to recruit new seedlings after the fall bloom.

Initial burn area (Looking North) and acceptable wind directions

EVENTUAL BURN PLAN

We only need to burn those areas that will become an Everglades freshwater marsh (shaded dark) that can be revitalized by fire. The areas on the eastern and central portion of the site will not be burned because they include a willow / pond apple swamp and a cypress community (these communities are being restored without burning).

Eventual burn areas (dark) and Cypress / Swamp areas that will not be burned (light)

DAY OF THE BURN: WHAT TO EXPECT

You can expect to see a lot of activity around the site on the day of the burn. The burn will begin by lighting a low intensity backing fire off of the Northern control line. A backing fire is one that works its way slowly against the wind. This will create a safety zone of burned material and will give us the flexibility to ignite a higher intensity head fire that burns with the wind from the South if the backing fire doesn't carry through the Pepper trees as well as we would like.

A morning safety briefing

DAY OF THE BURN: SAFETY MEASURES

Safety is the highest concern throughout the planning and execution of the burn. It begins with the preparations when the fire control lines are cut and the fuels compacted.

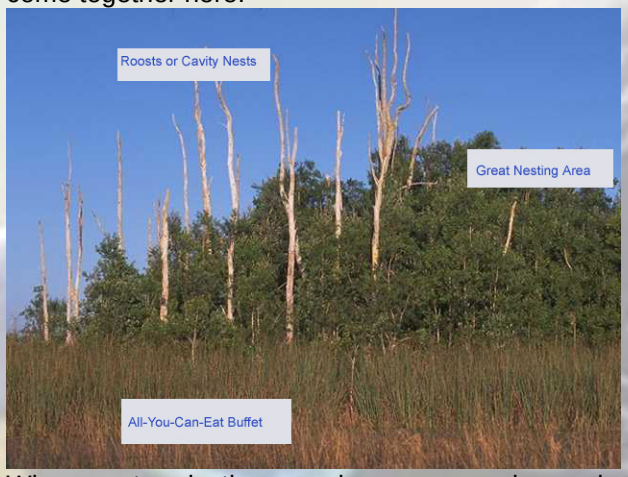
A prescription is prepared that describes the specific conditions under which it is safe to burn. This includes wind and other weather conditions, and equipment and personnel needs. If any requisite condition is not met, we would be out of prescription and will not burn. Safety precautions on burn day include a morning briefing, constantly checking communications, and confirming weather conditions on-site regularly with field equipment.

Tools such as this drip torch are used to ignite the brush

Within a week of the burn native marsh plants, that have laid dormant, spring to life

Habitat by Design

What makes the Loxahatchee Mitigation Bank so special is that several types of plant communities come together here.



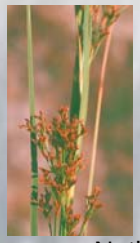
When restored, the marsh-cypress and marsh-swamp transition zones will become wildly popular with wildlife

EDGE EFFECT

The mixing of native plant communities provide the perfect place for wildlife to live and thrive by providing places to hide, roost, nest, and feed.

THE MARSH BUFFET

For wildlife, replacing the Pepper trees with a marsh is like replacing a saloon with a family buffet. While Pepper trees produce small berries by the millions, they are toxic and provide little nutrition for wildlife who will often appear drunk after eating them.

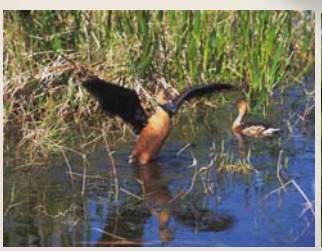


Native marsh vegetation is loaded with food for wildlife.

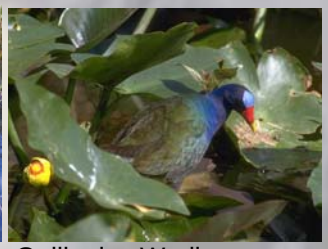
Some birds enjoying “Life on the Edge”

THINGS YOU WILL SEE

Herons Nesting



Ducks Dancing



Gallinules Wading

Hawks Watching