



**NATURAL RESOURCES CONSERVATION
TEAM
FY2005 AWARD SUBMISSION**



Natural Resources Conservation Award Team 2005 Naval Air Station (NAS) Jacksonville

BACKGROUND

The NAS Jacksonville Environmental Department implements programs that ensure environmental compliance, prevent pollution, sustain natural and cultural resources and promote continual improvement of the Station environmental management system while providing services, materials, and facilities to enable war fighter readiness. The Station Natural Resources Management Program encompasses fish and wildlife conservation, forestry, land use, and conservation based education and recreation on four separate properties. The team members responsible for the natural resources program are Christine Bauer, Natural and Cultural Resources Manager, Will Henry, Forester, and Angela Glass, Assistant Natural Resources Manager.

POSITION DESCRIPTION

The Natural and Cultural Resources Manager supervises activities on Main Station, Outlying Landing Field Whitehouse, Rodman Bomb Target, and Yellow Water Housing. Over 8,600 acres of land are managed for endangered species, commercial forest production, and game and non-game wildlife conservation. The forester primarily manages the forest stands throughout the properties including forest protection and improvement, timber sales and prescribed burning. The Assistant Natural Resources Manager educates military and civilian personnel and school groups about local wildlife and conservation initiatives, coordinates species surveys and reports and provides community outreach programs.

AWARDS AND SERVICES

During the award period NAS Jacksonville received the State of Florida Clean Marina Award – December 2003

Christine Bauer:

- Special Act Award for Natural Resources Program Support – August 2005

- On the Spot Award for Natural Resources Program Support – September 2004

- Past member, Board of Directors Florida Aquatic Plant Management Society

- National Military Fish and Wildlife Association

- St. Johns River American Heritage River Initiative, Federal Partners

- Several letters of appreciation from tenant commands for Natural Resources training

Will Henry:

- Society of American Foresters

- Several letters of appreciation from tenant commands for outstanding performance

Angela Glass:

- Naval Air Station Jacksonville Eagle of Excellence Award – May 2005

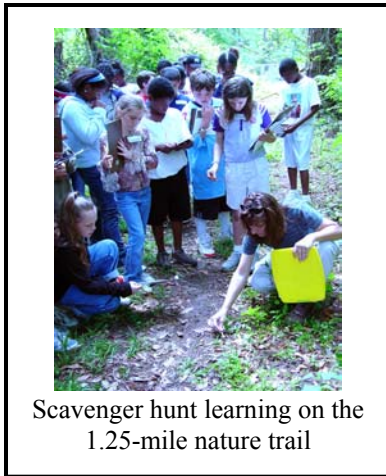
- Several letters of appreciation from tenant commands and the Jacksonville community for educational outreach programs

ACCOMPLISHMENTS

Conservation Education

Black Point Watchable Wildlife Area

This area is set-aside for people to be educated about wildlife on the Station and it's surrounding waters. The pavilion features stationary binoculars and informative kiosks about Native Americans, plants, mammals, birds, reptiles and amphibians. Inside the Black Point Interpretive Center are live exhibits of native fish and reptiles and preserved specimens of native birds, mammals and reptiles. Free educational programs are offered at the



Interpretive Center to people on the Station and the

surrounding three counties. The educational programs allow community teachers to choose from a variety of nature-inspired learning projects that compliment their curriculum. To date, over 350 children have participated in the educational programs. These children range from 3 to 13 years and include community groups such as the Girl Scouts. In addition to the traditional classroom there are two nature trails to facilitate a “hands on” approach to learning about the environment and local habitats. The goal of the program is to give teachers an additional resource to educate young people about their environment, specifically the unique role that the Station plays in protecting the environment.



Forest Management

Longleaf Pine Conversion and Gopher Tortoise Habitat Improvement Project



The goal of the project was to reestablish fifty-seven acres of longleaf pine forest and increase habitat for gopher tortoises and other wildlife species. Although longleaf pine is slower growing and has a higher establishment cost than slash pine, longleaf pines provide more benefits to wildlife. Gopher tortoises are listed as a Species of Special Concern in Florida.

To initiate the project the mature slash pine forest was sold and harvested in January 2004. Longleaf pine seedlings are sensitive to plant competition and very intolerant of shade. The primary plant competitor on the site was saw palmetto. Along with the palmetto, there were other low growing plants such as wiregrass and gopher apple, which are good food species for the gopher tortoise. The goal of the site preparation was to significantly reduce

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Ground conditions after one pass of the tandem chopper

the coverage of saw palmetto on the site and to preserve the desirable food species for gopher tortoises. To accomplish this goal a two-stage mechanical site preparation procedure was employed. A tandem chopper severed the tops of the palmetto, tree limbs, and debris while leaving the other plants and soil mostly undisturbed. After the chopping was complete, a forestry harrow cut the saw palmetto root mass. Due to the construction of the harrow, most of the saw palmetto roots were severed while other

plants were undisturbed. When the site preparation was complete, the site was hand planted with 41,000 containerized longleaf pine seedlings in December 2004. Hand planting was more effective on the site and produced less soil disturbance than machine planting. Timing of the planting was important because the low temperatures kept the seedling tops from maturing while allowing the roots to actively grow throughout the winter. In the spring, other plants began to grow and provide food for the gopher tortoises and other wildlife.



Longleaf pine seedling 11 months after hand planting

Fire Protection

In June 2004 NAS Jacksonville contracted with the Florida Division of Forestry to install new firebreaks and re-plow existing fire lines in the Weapons Area on the Station. The NAS Jacksonville Forester determined the placement of the lines and delineated firebreak locations in the forest. Special attention was paid to existing fire lines such as streams, roads and clear areas. Once the new location was delineated, the Florida Division of Forestry brought in equipment and plowed the firebreaks. Several miles of new firebreaks were installed and several miles of existing fire lines were widened.

Fish and Wildlife

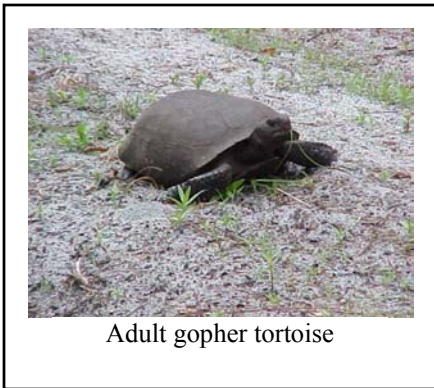
Gopher Tortoise Relocation and Management Plan-Firehouse Construction



Gopher tortoise burrow

The gopher tortoise is a species of special concern in the State of Florida and a keystone species due to the protection their burrows afford to other wildlife. Many of the species that use the gopher tortoise burrow are species of special concern, threatened, or endangered. Examples are the eastern indigo snake and the Florida mouse.

A Station gopher tortoise management plan was prepared with the assistance of the Florida Fish and Wildlife Conservation Commission that allows Station natural resource personnel to apply for gopher tortoise relocation permits as needed for mission requirements. In the fall of 2003 four gopher



Adult gopher tortoise

tortoises were relocated from a construction site to other suitable locations on the Whitehouse property. To prevent other tortoises from entering the construction area a temporary perimeter exclusion fence was installed. Subsequent monitoring has shown that all relocated tortoises are doing well and have chosen to stay in their new burrows.

Recycling for wildlife

Wildlife have four basic requirements for survival: food, water, living space, and cover.

Hedgerows, thickets, trees and brush piles are examples of cover. When natural cover is limited, people can provide brush piles, which benefit wildlife species such as wild turkeys, bobwhite quail, raccoons, chipmunks, cottontail rabbits, and some songbirds. Predator species



Supplies for brush pile

such as foxes, bobcats, hawks and owls also benefit from increased populations of small mammals and birds. The Station Navy Exchange Garden Center had over 30 Douglas fir, Scotch pine, and spruce trees left over from the Christmas season. The trees could be better utilized as wildlife habitat than adding to the local landfill. Guidelines suggested logs be placed on the ground in a crisscross fashion to provide a durable base. Since there were not enough logs available the Station Self-Help Division provided excess wooden pallets.

Once the pallets were placed on the ground, there was concern over the wide spaces between the wood slats as a detriment to eggs and nestling birds. Piles of hay and tall grass clippings were placed over the pallets as cushioning and insulation for small animals and birds.

After the base was completed, small trees were placed around the perimeter to form a cone shape. When all of the trees were placed securely around the base, the structure was tested for stability by pushing on all sides. Four brush piles were created with the recycled materials. Grasses, small plants, and vines will eventually grow up through the base providing more benefit to wildlife. This will also add density and a longer life to the brush piles.

Due to the biodegradability of these materials, the brush piles are relatively short lived (about 6 years). There are different methods of construction, usually mound or cone shaped. Monitoring for animal activity will determine whether to add on to a particular brush pile or construct a new one in another area.



Completed brush pile

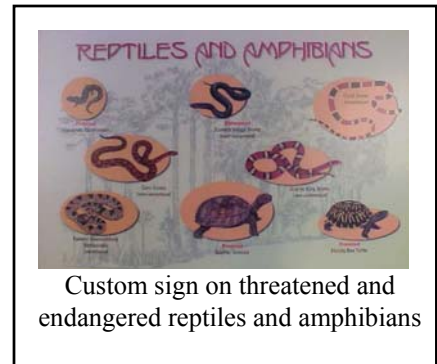
Threatened and Endangered Species Habitat Protection and Personnel Awareness



Manatee protection sign

In accordance with the Station Integrated Natural Resources Management Plan signage was developed to educate people about threatened and endangered species and their habitat. Educating people about wildlife habitat is the first step in preventing additional loss of the species or their habitat. Fostering this education promotes protection of the habitat and continues compliance with the Endangered Species Act. Failure to protect the habitat of threatened and endangered wildlife could affect the mission if the U.S. Fish and Wildlife

Service designated areas on the Station as critical habitat. Once an area is designated critical habitat, the land must be used for species recovery and the mission comes second. Weatherproof fiberglass signs will be housed under kiosks. The kiosks will be placed in areas of high recreational traffic and areas that support the endangered West Indian Manatee, wood stork, and threatened American Alligator. Prevention of habitat degradation is vital to continued mission success with the added benefit of wildlife protection and personnel recreation.



Custom sign on threatened and endangered reptiles and amphibians



Alligator protection

Community Relations

Shoreline Clean Up



Several commands assist with loading debris onto trucks

Shoreline clean up is an annual volunteer event that involves Station departments, several tenant commands and community members in removing debris that accumulates along the Station's 3.1-mile shoreline. Each year participation increases and the shoreline is restored to its pristine condition. The last three clean ups, including a special clean up after last year's hurricanes, involved over 325 volunteers who removed over 14,000 pounds of debris. Volunteers walked the shoreline, rode in the Environmental Department

boat, or cleaned the shoreline from canoes. The Natural Resources Team also used the opportunity to inform people of the wildlife present in the area and ways to protect their habitat.



First lieutenant and air ops unloading trucks