

Trailblazing at Guantanamo

Volunteers Come Together to Restore Hiking Trails

A VOLUNTEER ORGANIZATION aboard Naval Station Guantanamo Bay, Cuba (GTMO) brings volunteers and hikers throughout the community together to revitalize the hiking trails, beaches and wildlife viewing areas in a summer restoration project. This group, known as the “Breakfast Club,” was founded by

personnel from Joint Task Force (JTF) —Guantanamo’s Navy Expeditionary Guard Battalion’s (NEGB) Volunteer Program, and the GTMO Naval Facilities Engineering Command (NAVFAC) Public Works Department (PWD) Self-Help and Environmental Offices.

Established in 1898, GTMO is the U.S. military’s oldest overseas installation

and is part of the West Indies and Greater Antilles island chains in the Caribbean. In December 1903, the United States began leasing GTMO’s 45 square miles of land and water for use as a fueling station from the Cuban government. On 1 January 1959, access to Cuban territory outside the confines of the base was



Jose Montalvo

declared off limits to U.S. military personnel and civilians. Five years later, Cuba's government cut off water and supply sources to the base. Since then, GTMO has been self sufficient with its own energy and water sources. GTMO's isolation from the rest of Cuba is the reason it has an important wildlife sanctuary.

Outside the Naval Station's fence line, forested areas have been converted to pastureland and wildlife is hunted for food. In contrast, the Naval Station protects many of its animals in an "animal refuge" on much of GTMO's underdeveloped and primarily undisturbed land.

Conducting research on the flora and fauna of Cuba is almost impossible because U.S. travel sanctions and the Cuban government severely restrict research in the country. Instead, researchers gain access to those areas through the Naval Station. Several partnerships exist between organizations such as the Naval Station PWD's Environmental Office and the Toledo Zoo, the National Oceanic and Atmospheric Administration (NOAA), the Applied Conservation Division of the Zoological Society of San Diego and the United States Geological Survey (USGS). These partnerships advance research in plant and wildlife species under protected and isolated conditions which are not common elsewhere in the world. Dr. Peter Tolson, the Director of Conservation and Research at the Toledo Zoo, and his colleagues have been studying GTMO's wildlife for over ten years. Dr. Tolson was fundamental in establishing an integrated natural resource management plan (INRMP) for the base and holds annual wildlife seminars raising awareness of their importance within the GTMO community.



The Antillean nighthawk camouflages its nest in a bed of rocks. (Egg laying in nest.)



The Cuban rock iguana, one of the largest reptiles in the West Indies and belonging to one of the most endangered groups of lizard, makes up approximately five percent of the total population of Cuba.



Cuban Tody.
CSCS Carlos Rodriguez



Cuban Pygmy Owl.

Through the base's intricate trail system, hikers have access to see plants and wildlife many people in the West Indies cannot. On GTMO, 193 plant species have been identified—51 are endemic to Cuba, and four to the Naval Station itself, including an extremely rare and primitive cactus tree, *Pereskia zinniiflora*, of which only one single tree has been found. In addition, 167 species of birds reside on base including five that are endemic to the West Indies and five to Cuba. The Cuban rock iguana population, one of the largest reptiles in the West Indies and belonging to one of the most endangered groups of lizard, makes up a conservative estimate of five percent of the total population of Cuba. The estimate is considered a significant fact given the small footprint the base has on the island. Recently, Dr. Tolson was contracted by NAVFAC to conduct an iguana survey to verify population density and develop a management program to meet requirements of the INRMP. Other reptiles such as the Cuban boa can sometimes reach ten feet or more in length on base, a phenomenon that rarely occurs outside the fence line. Additionally, there are 24 other reptile species, four of which are sea turtles.

A keen observer might be able to spot some of the birds endemic to the area. Some birds seen are Cuba's rare bee hummingbird, the world's smallest bird, the Antillean nighthawk who camouflages its nest in a bed of rocks, the Cuban Pygmy Owl or the colorful Cuban Tody.

Most of the current trails are remnants of former "tank trails" from the Cold War era. Some of GTMO's trails were initially constructed as a means to get to observation posts in

the early 1900's when adjacent areas were used as firing ranges. Later they were used by military forces to defend GTMO from possible Cuban attack. Until the early 1990's, these trails were off-limits. Many of these trails remain closed due to operational requirements. In 2000, the Naval Station introduced the Ridgeline trail to the community, which helped the base achieve the Commander in Chief, U.S. Atlantic Fleet's 1999 Bronze Hammer award for a small activity's achievement in Self-Help with no Construction Battalion Unit in the area. In early 2009, the U.S. Coast Guard Port Security Unit



GTMO introduced the Ridgeline trail to the community in 2000.

305 from Fort Eustis, Virginia conducted extensive work to build up a trail sign infrastructure to help hikers navigate the formerly restricted trails. Unfortunately, that infrastructure has

degraded to the point where the trails have become confusing to navigate in some areas.

This past summer, JTF NEGB troopers surveyed the trails, identified locations with excessive trash, missing or degraded signs and trail overgrowth. Some of the problems with the trails involved part of them being unrecognizable; hikers mistakenly traveling into off-limit areas and others are not aware of their existence.

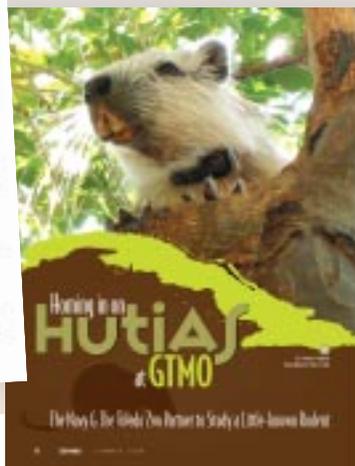
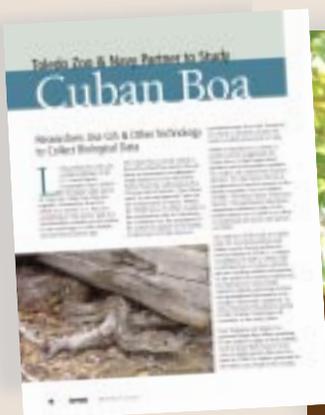
Revitalizing the Marina Nature Trail was the first project to tackle. The Marina Nature Trail is a quarter-mile stretch of coastline and mangroves. In the late 1950's, this location was called Deer Point Beach, but with the growth of several mangrove trees, over time the beach coastline disappeared and an interesting trail emerged. Eventually the trail became overgrown, forgotten, and cluttered with trash.

After meeting five mornings in a three-week period, 75 volunteers from ten commands all over the base came out to show their support for the project. The volunteers were a clear representation of the base's diverse community, ranging from civilians to officers throughout every branch of service, including a Seaman on his two weeks of reserve training, a park ranger, a teacher, an interpreter, dozens of JTF Troopers, Naval Station Sailors and several senior enlisted and commissioned leaders.

In the first two days, volunteers removed 60 bags of trash, in addition to several old boat batteries, fire extinguishers, a F-250 truck-bed full of brick, 10 dump truck loads of trees and brush, a

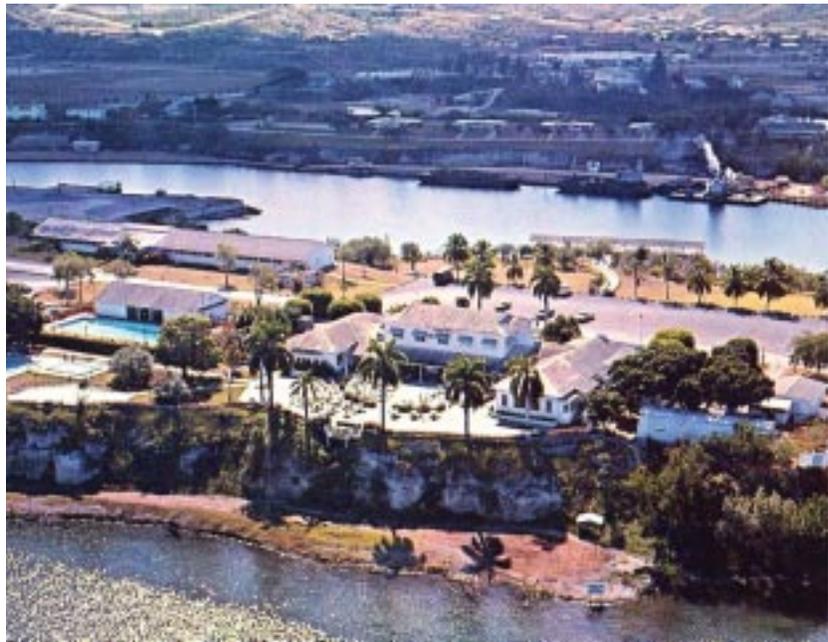
For More Insights

FOR MORE INSIGHTS into Peter Tolson's work with GTMO's Cuban boas and hutias, read our articles entitled "Toledo Zoo & Navy Partner to Study Cuban Boa: Researchers Use GIS & Other Technology to Collect Biological Data" and "Homing in on Hutias at GTMO: The Navy & The Toledo Zoo Partner to Study Little-known Rodent" as they appeared in the winter 2007 and summer 2008 issues of *Currents*. You can browse the entire *Currents* archives at www.enviro-navair.navy.mil/currents and "like" us on Facebook at www.facebook.com/navycurrents.



20-foot concrete slab, several oversized sewage pipes and other miscellaneous scrap metal. On the third day, volunteers from Naval Mobile Construction Battalion Twenty-Five (NMCB-25) brought in heavy equipment to haul away everything collected. They used heavy equipment to define the path and establish three picnic/rest areas along the trail. The remaining days were used to fine tune the trail's appearance. Volunteers found an oversized piece of driftwood they were able to reuse as an interesting bench alternative for one of the rest areas, and the local community donated two picnic tables.

Added benefits to the Marina Nature Trail project are the improvement of



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Navy Equipment Operator 2nd Class Battease from the Naval Station's PWD, Self-Help Leading Petty Officer, uses a chainsaw to fell a tree, opening a path for the volunteer working party to come in and remove the accumulated trash and overgrowth on a nature trail at GTMO on 1 June 2010.

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soil quality and the proper disposal of hazardous materials. Any grooming of the trail's vegetation ensured that the roots were left in place to aid in erosion prevention and recruitment of mangroves. Mangroves act as a natural buffer to protect shorelines and improve the quality of water and wildlife habitat.

Regular and consistent grooming is recommended for any trail system. (Frequency and scope is dependent on your environment). Grooming consists of identification and removal of any garbage, invasive plants, safety hazards, and any infrastructure issues. Lack of trail maintenance and awareness can easily lead to trail abandonment and abuse. There are different ways to manage a trail system and the group chose to start from the ground up.

The Breakfast Club, in conjunction with the JTF's Joint Intelligence



Naval Station volunteers removed several tons of debris from the Marina Nature trail.
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Navy Damage Controlman 2nd Class Joab Estrada, Army Master Sergeant Sheryl Mason, Navy Aviation Maintenance Administrationman 1st Class Ligia Velezquez, Aviation Maintenance Administrationman 2nd Class Andrew Roberts, and Fire Control Technician Christopher Hamilton, from JTF-Guantanamo's NEGB, haul away a truckload of bricks accumulated after the day of clean up from the Breakfast Club's inaugural event, revitalizing the quarter mile Marina Nature Trail at GTMO on 2 June 2010.

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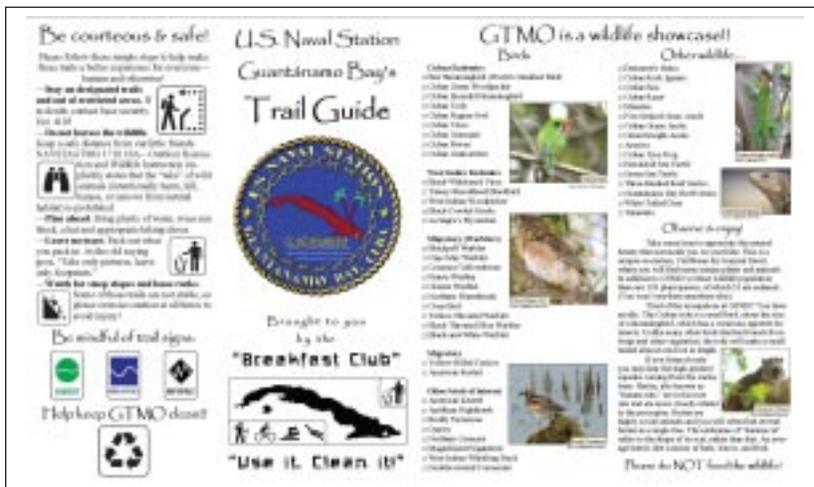
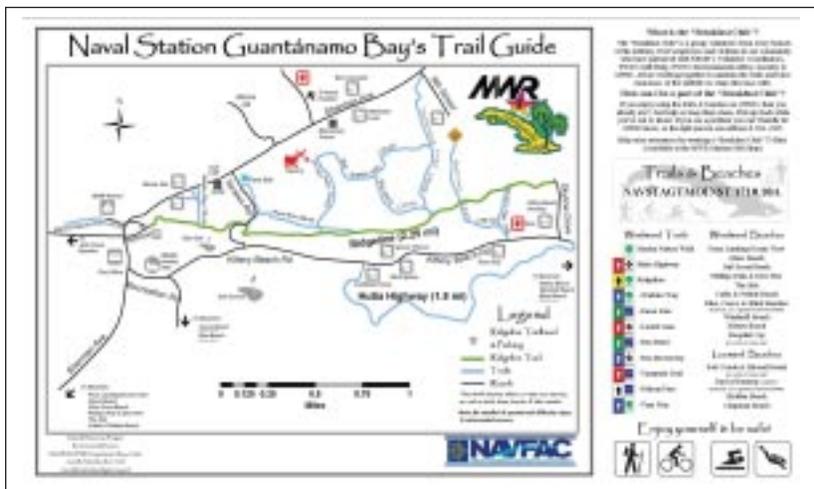


A Seabee from NMCB-25 uses heavy equipment to reestablish the Nature Trail as part of the "Breakfast Club" trail project.

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Seabees from NMCB-7 make repairs to GTMO's hiking trails as part of the "Breakfast Club" trail project.

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GTMO's hiking trail guide.

Group, accurately mapped the entire trail network using Global Positioning System (GPS) and Geographic Information System (GIS). Using a handheld GPS unit, the trail network was mapped out collecting hundreds of waypoints. Additional waypoints were collected, identifying existing trail signs, locations where repairs or needed signs would be placed, safety issues, trail overgrowth as well as locations with excess garbage. Interpretive sign locations were identified to raise community awareness on the importance of the local flora and fauna as well as the trail's historical value. These data were inserted into ArcGIS™, advanced mapping software, to produce a trail map with all the discrepancies mapped.

Once these locations were identified and mapped, volunteer events were scheduled throughout the summer to work through the list. Needed signs were available from the base's existing sign inventory, additional signs were identified and the base's Moral, Welfare and Recreation



ABOVE: The Marina Nature Trail before volunteers restored the trail.

RIGHT: The Marina Nature Trail after volunteers restored the trail. The Marina Nature Trail was called Deere Point Beach in the 1950's before mangroves covered the shoreline.

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(MWR) Office is funding their purchase. The same map used

to collect all the infrastructure data has been published through the MWR program to provide hikers in the community a comprehensive guide to the trails.

In an effort to provide a long-term solution preventing future degradation of the trails, there are plans to increase hiker awareness of authorized recreational trail routes and provide the community information needed to help protect and view this unique wildlife habitat. Several measures have been put into place, including establishing street level trail head locations with oversized maps and

general trail safety information, implementing the new trail guide, and offering a monthly calendar with beach and trail clean-up events in addition to various outdoor recreation opportunities. 

CONTACT

Jose Montalvo
Naval Facilities Engineering Command Public Works Department
011-53-99-4466
DSN: 660-4466
jose.montalvo@usnbgmto.navy.mil