



## The North Carolina Sandhills Weed Management Area: Sharing DoD Invasive Plant Species Management Strategies with Installation Neighbors

Project # 07-334

### Background:

The North Carolina Sandhills Weed Management Area (NCSWMA) is composed of federal, state, and local agencies working with public and private landowners to prevent noxious and invasive weeds from causing ecological and economic damage in the region. Organized in 2006 with assistance from the US Army Engineer Research and Development Center, Construction Engineering Research Laboratory (ERDC-CERL) and the DOD Legacy Resource Management Program (see Legacy project # 06-334), NCSWMA is the premier Weed Management Area in North Carolina. NCSWMA strives to provide the partnerships, shared responsibilities, increased efficiency, and collective vision necessary for successful regional invasive plant management. Its diverse membership includes: Fort Bragg, Camp Mackall, Pope Air Force Base, U.S. Fish and Wildlife Service, USDA Natural Resources Conservation Service, North Carolina Division of Parks and Recreation, North Carolina Wildlife Resources Commission, The Nature Conservancy, Sandhills Ecological Institute, Sandhills Area Land Trust, private commercial foresters and concerned citizens. However, NCSWMA is still in the early stages of development, when technical, logistical, and physical support is needed to ensure its future success. Initial NCSWMA planning sessions specifically identified the need to: 1) communicate invasive plant species identification information and management strategies, 2) implement early detection/rapid response (ED/RR) control efforts, and 3) recruit additional active membership for leadership and supporting roles. This project addresses these needs, by sharing invasive plant species management strategies and experiences developed on Fort Bragg and Camp Mackall with the NCSWMA.

Fort Bragg and Camp Mackall's invasive plant species management program, with the technical and logistical support of ERDC-CERL, has implemented invasive plant species control efforts, using strategies developed from an Integrated Non-Native Invasive Plant Species Management Plan. After only a single year of implementation, invasive plant species control efforts successfully reduced populations of 13 highly invasive plant species identified for ED/RR control. Many of Fort Bragg's strategies for ED/RR control, and integrated management planning can also be applied throughout the region to proactively prevent the spread of invasive plant species onto Fort Bragg and Camp Mackall.



**Chinese tallowtree (*Sapium sebiferum*) is one of twelve non-native invasive plant species targeted by NCSWMA for early detection and rapid response within the NC Sandhills.**

### Objective:

The objective of this project is to assist NCSWMA implement regional invasive plant management strategies.

### Summary of Approach:

The approach taken to meet the project objective builds upon Fort Bragg's highly successful invasive plant species management program and upon insights gained during NCSWMA development. Specifically, key technical, logistical and physical support will be provided to aid NCSWMA with regional invasive plant management strategies:

- Technical support – An online regional center of expertise will be developed to provide NCSWMA with technical support for invasive plant species identification and management. The online regional center of expertise will utilize the skills of expert botanists and land managers in the NC Sandhills to communicate invasive plant species identification information and management strategies. This will provide a highly effective and convenient way of dispersing important invasive plant species information to the land managers that need it. The online regional center of expertise will be integrated with the NCSWMA website ([www.ncswma.org](http://www.ncswma.org)), which allows for simple data transfer, question and comment posting, and information archiving.
- Logistical support – A Weed Management Area Coordinator will be hired to support NCSWMA logistics. The position will support the NCSWMA on all levels; organizing meetings, coordinating events, recruiting membership, writing funding proposals, leading volunteer work days, facilitating communication amongst the

members, etc. During the NCSWMA planning workshop in July of 2006, participants identified the need to hire a Coordinator to assist them. A Coordinator would greatly improve the effectiveness of the NCSWMA by supporting its members, who are currently participating as volunteers with busy schedules that preclude them from coordinating all the logistics necessary for the developing group.

- Physical support – A seasonal Early Detection/Rapid Response (ED/RR) Field Team will be hired to assist participating NCSWMA landowners in searching for and treating infestations of ED/RR species. During the NCSWMA planning workshop, participants also identified the need to establish a seasonal crew to aggressively manage ED/RR species that threaten their properties. Previous surveys and member input will be used to identify the ED/RR species that need treatment before they spread and cause damage within the region.

### **Benefit:**

NCSWMA members benefit from coordinated efforts, as well as shared information, resources and expertise. Some of the many important activities of the NCSWMA include education, public outreach, regional prioritization, fundraising, early detection of invasive weeds not yet widely distributed in the region and rapid response control initiatives. Effective regional invasive plant species management is also particularly important to Fort Bragg, Pope AFB, and Camp Mackall. These installations are at particular risk to outside introductions of new invasive plant species because of the high volume of equipment, vehicles, and people that travel in and out of the area on a daily basis. This heightened risk of introduction coupled with regular disturbances in the training areas creates an ideal environment for new infestations to spread, damaging training lands and threatened and endangered species habitat. Supporting NCSWMA efforts to control new invasive plant species infestations before they spread onto the installation will protect the significant investments these installations have made in invasive plant management.

### **Accomplishments:**

In 2008, the NCSWMA launched a Forum page on its website to provide regional invasive plant identification and management expertise. A standing panel of professionals was recruited to field questions in the Forum that have been submitted by members and the general public. The website also details current NCSWMA activities, a master list of all documented invasive plants within the Sandhills region, NCSWMA projects including summer field site profiles, NCSWMA outreach materials and public presentations, invasive plant species profiles, and a listing of native xeriscape alternatives (i.e. drought tolerant landscaping). A photo gallery featuring invasive species photos and identification keys, as well as photo

documentation of summer field site management has been added to aid website readers in the identification of regionally important invasive plants. The website also provides links to other invasive species resources and to NCSWMA partner organizations.

A Weed Management Area Coordinator was hired and began work in May of 2007. The Coordinator assisted with website development, public relations, and coordination of the ED/RR team.

During the summer of 2007, a two-person ED/RR team implemented diverse, invasive plant control treatments at five regional sites, including: Dennis Williams tract, Boyd's tract, Kinlaw-Snipes tract, Long Valley Farm, and Bowling-Crowley tract. Although it is too early to assess long-term successes of the treatments, preliminary results lend optimism. Continued monitoring and treatment of re-sprouts and seedlings will be necessary to maintain the integrity of these natural areas.



**An early detection/rapid response team worker applying control treatments to targeted species at a regionally important management site within the NC Sandhills.**

### **Contact Information:**

Janet Bracey Gray, Leadership Committee Chair  
North Carolina Sandhills Weed Management Area  
[info@ncswma.org](mailto:info@ncswma.org)  
[www.ncswma.org](http://www.ncswma.org)

Matthew Hohmann, Ecologist  
US Army ERDC-CERL  
P.O. 9005  
Champaign, IL 61826-9005  
1(800) USA-CERL, ext. 5863  
[matthew.g.hohmann@us.army.mil](mailto:matthew.g.hohmann@us.army.mil)

Mark Gumbert, Principal Scientist  
Copperhead Environmental Consulting, Inc.  
P.O. Box 73  
859-925-9012  
[mwgumbert@copperheadconsulting.com](mailto:mwgumbert@copperheadconsulting.com)