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Hearing on  
Lessons Learned Protecting and Restoring Wildlife in the Southern United States under the Endangered Species Act

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Mr. Chairman and Members of the Committee

## Introduction

I am David J. Tazik, Chief of the Ecosystem Evaluation and Engineering Division for the Environmental Laboratory at the US Army Engineer Research and Development Center (ERDC) in Vicksburg, Mississippi, which is a component of the US Army Corps of Engineers (the Corps). I am pleased to appear today on behalf of the ERDC and the Corps to provide information as requested in your letter of invitation dated 25 April 2005. The Congressional interest in the ERDC's and the Corps' contributions to protecting and restoring wildlife in the southern United States under the Endangered Species Act (ESA) is much appreciated.

The theme of my testimony today is the Value of Science in Implementation of the ESA. I intend to demonstrate the Corps' continuing commitment to bringing good science and technology to the conservation of endangered and threatened species and the ecosystems upon which they depend. While some of our research does support the Army and other military Services, I will confine my remarks to the Corps' civil works mission.

## The Value of Sound Science in Implementation of the Endangered Species Act (ESA)

The Corps recognizes its duty to address all its responsibilities and duties under the ESA, meet regulatory requirements, and pursue environmental sustainability goals under the Corps' Environmental Operating Principles. And, we have learned a key lesson in the implementation of the ESA – that development and application of sound science is essential in planning for the protection of threatened and endangered species. As a result, we are actively engaged in programs to develop empirical data that define relationships between effects on high-priority species and mission-related activities.

## Economic Costs of Endangered Species Protection

Based on recent expenditure reports, the Corps has spent from \$32 to over \$108 million per year since 1996 on over 250 federally listed threatened species and endangered species. Important taxa with significant populations in the southern United States include sturgeons, sea turtles, mussels, and shorebirds. Reported expenditures are suspected to be a substantial underestimate of the true cost of ESA compliance. A recent investigation for sea turtles, for example, revealed that reported costs were only about half the actual costs incurred by Districts. We are now developing an improved cost accounting system.

## Sea Turtles

Sea turtle issues arose for dredging projects starting in 1980. Prior to 1992, some dredging activities killed as many as 50-100 sea turtles per dredging event; yet we knew that some dredging events had no impacts on sea turtles. At that time, very little scientific data existed on sea turtle biology and behavior in waterways subject to dredging. The Corps responded voluntarily with establishment of the Sea Turtle Research Program that led to development of sea turtle protection protocols. Since 1992, when the protocols were implemented, less than one sea turtle incident has been documented per dredging event.

## Pallid Sturgeon

The pallid sturgeon occurs in large rivers in the Mississippi River Basin. It was federally listed as an endangered species in 1990 and a recovery plan was approved in 1993. Decline of this and other river sturgeon is attributed to flood control and navigation projects, water pollution, and commercial fishing for caviar. Studies of pallid sturgeon are underway through interagency collaboration and include three reaches of the Mississippi River Basin: Missouri River, Middle Mississippi River, and lower Mississippi River. Most research studies are fully or partially funded by the Corps from Northwest or Mississippi Valley Divisions.

Recent Corps studies have documented stable populations in the lower Mississippi River, and pallid sturgeon are regularly captured in the Middle Mississippi River (MMR) during cooler months. Rarity of endangered pallid sturgeon requires a long-term effort to fully evaluate population trends and habitat preference relative to on-going civil works mission activities. And we continue in this endeavor.

#### Least Terns

The ERDC and the American Bird Conservancy (ABC) are currently partnering to assist the Corps in a variety of issues involving the Interior Least Tern (ILT). Our objective is to establish science-based data collection protocols for genetic studies and population monitoring. We will use results to improve subsequent population modeling that ultimately will inform long-term management for this species.

Coastal populations (other than California) of the least tern are not federally listed. And, the relationship between interior and coastal populations of this species remains a mystery. Currently accepted tern population models do not account for dispersal between the two, which may be a key factor in regulating population size, particularly for the interior population. Planned genetic studies will help solve the riddle, and should lead to a more reliable basis for future management recommendations. The Corps and ABC are contributing to a potentially definitive genetics analysis by assisting with coordination of a large-scale genetic sampling effort.

We are also partnering with the ABC to coordinate development of a range wide monitoring plan for the interior population of least terns. Our goal is to obtain an accurate assessment of regional and range-wide least tern population numbers and trends. The plan will be reviewed by the ILT Working Group, a multi-agency group including 4 US Fish and Wildlife Service regions, 10 Corps districts and ERDC, several USGS science centers, 8 State wildlife agencies, several universities, and ABC. Data such as these should provide us all with a reliable basis upon which to monitor population status and inform habitat restoration and management decisions.

Many of these decisions are based on the best science available, but these are complex, interdependent systems with incredible geographic scope, and many aspects of the biology and ecology of these species are not well-understood. Taking action necessarily involves the agency relying on its considerable expertise and making a judgment call, and adjusting those decisions as more science becomes available or circumstances change.

The Corps has worked with the Services since enactment of the Act to develop science-based solutions to endangered species challenges at Corps projects, and will continue to do so. Information resulting from each of the efforts described above is intended to provide a more reliable basis upon which to formulate habitat restoration and management decisions. Once avoidance and minimization efforts are instituted, reversing them can be difficult, yet it is important for those making policy and management decisions to use the best available science in making those decisions and to be prepared to change course in response to new scientific developments.

In conclusion, my testimony illustrates the Corps' past and continuing commitment to the pursuit and use of sound science in an effort to meet prohibitive and affirmative duties under the ESA.

On behalf of the Corps and the ERDC, thank you for allowing me the opportunity to present this testimony today.