

CASE STUDY

Mid-project review – eradicating nutria from Chesapeake Bay, eastern United States

The general issue

A project to eradicate nutria from Chesapeake Bay in the eastern United States was initiated in 2000. Because no one control tool or single event was considered likely to kill all nutria in the short term, the eradication strategy has involved repeated or on-going culls. This approach requires managers to retain flexibility to improve planning as new information comes to hand, and to adapt the eradication approach and methods as the project evolves.

With nutria numbers now very low in treated areas Invasive Species International was commissioned to undertake an independent review of the project to assess progress and determine what changes might be required to ensure successful eradication. The considerable cost and effort involved in longer-term operations, and the risks in not satisfying eradication prerequisites, means independent mid-project reviews such as this are increasingly being adopted as good practice.

Background

The coastal marshes of Chesapeake Bay are listed as Wetlands of International Importance under the Ramsar Convention Treaty. They provide valuable ecosystem services including flood protection, erosion control and carbon sequestration. They also support a wide range of recreational and economic activities.

The introduction of nutria (*Myocastor coypus*) to the eastern shore of Chesapeake Bay in the late 1930s, and their subsequent establishment across the Delmarva Peninsula led to massive wetland loss and consequent impacts on ecological, social, economic and other values. Efforts to control nutria through commercial and recreational trapping proved ineffective.

In 1997 the Nutria Management Team comprising representatives from the US Fish and Wildlife Service, US Department of Agriculture, US Geological Survey, and the Maryland Department of Natural Resources was created to oversee a project aimed at investigating the prospects of eradicating nutria from Maryland's eastern shore. The earlier eradication of nutria from wetlands in south-eastern England (Gosling & Baker 1989) indicated that eradication from the Delmarva Peninsula might be possible.

(continued...)



The Delmarva Peninsula (left) and a nutria (above).

A phased approach to eradication was started in 1999, involving the collection of baseline data and the development and refinement of eradication strategies and techniques.

In 2007, following promising results and continued institutional support, the project was expanded to include the entire Delmarva Peninsula. The Nutria Management Team commissioned this mid-project review in 2009.

Our approach

A review team of two Landcare Research specialists with relevant scientific expertise and experience in undertaking and evaluating eradication operations, and a US expert in managing nutria conducted the review.

Terms of reference were agreed with the Nutria Management Team. While focused on technical issues, the terms of reference provided for wider issues such as institutional support and funding to also be considered.

The project manager and the chair of the Nutria Management Team collated background information and provided this to review team members before their visit to the area. The project manager accompanied the review team for much of its week-long schedule of meetings and site visits, providing additional information and insights.

In addition to meeting with Nutria Management Team members individually and collectively, the reviewers also spent time out in the marsh with field staff to view their activities and to gain further insights.

The outcome

Following the review a detailed report including 18 recommendations was submitted for consideration by the Nutria Management Team. The report recognised the significant accomplishments to date, but identified several areas in which new ideas and strategies must be developed in order to achieve eradication.

Project Manager Steve Kendrot (mid-May 2010): "The Nutria Management Team has taken quick action to address key recommendations in the report including the creation of a Private Lands Committee and a Scientific Technical Advisory Group. It has expanded outreach and communications efforts, including the development of a new website. New and innovative detection techniques have also been developed. Reorganisation of critical staff positions is also being considered, along with numerous other recommendations."

Steve Kendrot added: "Perhaps one of the most important results of the independent review was the reinvigoration and renewed commitment from management team members and field staff."

Reference

Gosling, L.M. and S.J. Baker 1989. The eradication of muskrats and coypus from Britain. *Biological Journal of the Linnean Society* 38: 39-51

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