



Patuxent Wildlife Research Center
Science Brief for Resource Managers

<http://www.pwrc.usgs.gov>
Science Brief PWRC 2003-44

Date: March 2003	Contact: Chandler Robbins	Phone: 301-497-5641	Email: chan_robbins@usgs.gov	Address: USGS Patuxent Wildlife Research Center Laurel, MD 20708-4015
----------------------------	-------------------------------------	-------------------------------	--	--

Wetland management reduces dispersal of breeding European ducks, Engure Marsh, Latvia

Description:

Habitat management is believed to be an important component of wildlife management and conservation biology. However, strong inferences about the effects of habitat management on vital rates of animal populations are surprisingly rare. Teams from Patuxent Wildlife Research Center and the University of Latvia collaborated on the analysis of data from a long-term study of breeding ducks at Engure Marsh, Latvia, an extremely important breeding site for northern European waterfowl. The teams found strong evidence that creation of stable nesting islands led to reduction of both (1) dispersal from the Engure marsh system and (2) water-related dispersal within the Engure marsh system.

Progress to Date:

Primary papers and manuscripts describing analyses:

Blums, P., J.D. Nichols, J.E. Hines, and A. Mednis. 2002. Sources of variation in survival and breeding site fidelity in three species of European ducks. *J. Anim. Ecol.* 71:438-450.

Blums, P., J.D. Nichols, M.S. Lindberg, J.E. Hines and A. Mednis. 2003. Estimating breeding dispersal movement rates of adult female European ducks with multistate modeling. *J. Anim. Ecol.* 72:292-307.

Blums, P., J.D. Nichols, M.S. Lindberg, J.E. Hines and A. Mednis. 2003. Estimating natal dispersal movement rates of young female European ducks with multistate modeling. (in review)

Management Implications:

As predicted, creation of stable nesting islands was followed by reduced movement of ducks out of and within the study system. Such habitat management thus has the potential to create attractive habitats that are readily used by ducks and that can lead to increases in local populations.

Contacts:

Jim Nichols
USGS Patuxent Wildlife Research Center
Laurel, MD 20708
Phone: 301-497-5660
Email: jim_Nichols@usgs.gov
<http://www.pwrc.usgs.gov>