



## Shifting Risk Perceptions of Wildlife Disease: Avian Outbreaks

This CESU research project allowed the National Park Service to analyze its urgent response to an outbreak of avian botulism at Sleeping Bear Dunes National Lakeshore. By identifying citizens' concerns about vector-borne diseases through a series of public engagement meetings, an easily-understood message was communicated to people living near infected wildlife. This dialogue invited both land managers and citizens to share their concerns to create clear, scientific reports on diseases such as botulism and how they affect the wildlife and people in the area. Cornell University studied how the agency could most effectively identify and address citizens' concerns about vector-borne diseases.



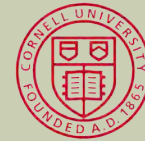
■ **Social scientists use interviews to gather information.** Understanding the human dimensions of wildlife management is a high priority for land managers. This project studied how one unit communicated effectively about avian botulism, and constructed recommendations for how additional parks could communicate about similar wildlife disease risks. *(Darrick Evensen/Cornell University)*

As our communities stretch farther and deeper into natural areas, our contact with wildlife can become more frequent and challenging. In order to help parks craft better messages about wildlife diseases, the National Park Service Wildlife Health Team supported research in four units: Sleeping Bear Dunes National Lakeshore, Golden Gate National Recreation Area, Fire Island National Seashore, and the Wrangell-

St. Elias National Park and Preserve. Through over 100 in-depth and unstructured interviews with informants at four sites around the United States, the researcher isolated twenty factors that affected participants' perceptions of risk. He analyzed interviews qualitatively to lead to these factors, most of which had been identified in previous risk perception research. At least three of these factors,

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#### ■ Project Website

[//sites.google.com/a/cornell.edu/wildlife-disease-risk](https://sites.google.com/a/cornell.edu/wildlife-disease-risk)

#### ■ Project Reports

Available on project website

#### ■ Project Type

Research

however, were new: participants “viewing a risk as (a) part of life, (b) ubiquitous, or (c) affecting quality of life independent of the direct effects of the risk object itself (e.g., through a disease vector).”

The interviews remained largely unstructured to facilitate emergent data rather than

suggesting topics or ideas that the interviewee may not have thought of independently. Participants included both National Park Service staff and citizens of communities surrounding these protected areas. The researcher interviewed participants until he deemed saturation had been reached and he had identified the factors of risk perception.



### Understanding Leads to Prevention

This project distilled lessons learned from the risk management process that could be used to teach other NPS units about how to approach risk communication. For the National Park Service, the increased concern of citizens regarding avian botulism became an example of how to shift peoples’ perceptions of wildlife disease from fear to understanding and, ultimately, prevention.



#### ■ The researcher listens to an informant.

Creating a safe environment for discussion of a controversial or highly-emotional issue helps staff and the public respond honestly and openly about their concerns. (Darrick Evensen/ Cornell University)



Karina Mullen wrote this project spotlight in August 2011. It was part of an education project between Colorado State University and the CESU Network National Office. Cooperative Ecosystem Studies Units provide research, technical assistance, and education to federal land management, environmental, and research agencies and their partners. Their broad scope includes the biological, physical, social, cultural, and engineering disciplines needed to address natural and cultural resource management issues at multiple scales and in an ecosystem context. There are seventeen CESUs, each composed of federal agencies, a host university, and partner institutions, which are linked together in a CESU network. For more information, see [www.cesu.org](http://www.cesu.org) or contact Dr. Thomas E. Fish, CESU National Coordinator, at [tom\\_fish@nps.gov](mailto:tom_fish@nps.gov).