



**The Goodwin-Niering Center for Conservation Biology and
Environmental Studies, Connecticut College**

**Summary of paper presented at the conference:
Saving Biological Diversity:
Weighing the Protection of Endangered Species vs. Entire Ecosystems
April 6 – 7, 2007**

**Navigating for Noah:
Setting Directions for Endangered Species Protection in the 21st Century
Presented by Karin Sheldon**

Summary by Bianca Kissel '08

The Biblical story of Noah and his ark tells of one man's valiant attempt to save the world's creatures from the impending flood by building an ark that can house only one pair of each species. Before the flood, others thought Noah had lost his mind and did not see the value in his work. But it was Noah's ability to look into the future (with a little help from God) that saved his life and the biodiversity of the planet. Karin Sheldon in her lecture given at Connecticut College during the conference on Saving Biological Diversity on April 6, 2007 used Noah's story as the initial framework for her talk about endangered species protection. If Noah was able to save biodiversity through good planning and hard work, in the 21st century we could most certainly follow his lead and do the same. Sheldon began by evaluating the details of the 1973 Endangered Species Act (ESA) and then exploring how we can do better. Ultimately, she concluded with another story about how humans and animals came to coexist but from a Native American perspective. With this story she ended with a call to action to protect the world's biodiversity.

In her introduction to the ESA Sheldon defined the legislation as a means to conserve ecosystems. The irony is that the ESA doesn't address protecting ecosystems

directly. Instead, the ESA outlines the steps needed to list and protect species without including direct plans of action or mechanism to save endangered ecosystems. Sheldon presented the components of the ESA as six distinct points. First, in order to get on the endangered species list, a species must be listed by the Secretary of the Interior. Second, the critical habitat must be listed as the proportion of habitat needed to protect the listed species. Third, there must be a conservation and recovery plan developed for the species. Fourth, the ESA requires a consultation before listing that attempts to determine the value of the endangered species and the extent to which the species is endangered. Fifth, the ESA prohibits the taking of the endangered species or harming of the habitat needed by the organism. Nevertheless, the 1982 amendment to the ESA does allow private landowners to develop their land if they develop and implement a habitat conservation plan (HCP) to protect the species. The sixth and final point Sheldon made about the ESA is the attempts to reintroduce endangered species to areas where they used to live. She mentioned the most prominent case of successful reintroduction involving the grey wolf in Idaho and Yosemite.

After explaining the essential components of the ESA, Sheldon discussed the many difficulties with species protection and legislative action. As for saving biodiversity, Sheldon pointed out that there is no boundary between an organism and its habitat. Therefore, to save the organism, its habitat or ecosystem must also be preserved. To do this there must be a unified effort to protect not just the individual species but also the ecosystem. The first step in this process involves the coordination of multiple government agencies. Sheldon showcased the success of this method by mentioning a fish species that has been protected across five states due to the combination of efforts by

the US Forest Service and the Bureau of Land Management. By connecting these two government agencies, the effectiveness of the ESA increases dramatically.

Sheldon suggested that collaboration between agencies can be a model for protecting other endangered species, especially taking into account the significance of government owned land. Since half of the United State's endangered species live on government land, how the government manages its property is of central concern. Sheldon stated that the government could save endangered species more effectively by allowing more road-less areas and by providing more funding for conservation projects. By working to manage federal lands and by protecting areas from human activities, the government can more effectively protect endangered species and their habitats.

But even within the federal land holdings, nine of the 135 different types of ecosystems in the United States are not represented. This leaves these nine ecosystem types exclusively in the hands of private landowners. With the other half of the country's endangered species living on private land, government collaboration with land owners plays a large role in the success of the ESA. Currently, nine million acres are protected privately. To care for these species on private land, arrangements between the government and private land owners are often made. These agreements allow private land owners to use their land while also preserving the ecosystem and abiding by federal laws.

But biodiversity on public and private lands is not distributed equally among states or regions. Biodiversity hotspots in states such as Alabama, California, Hawaii, and Texas must also be given special attention. Fortunately, these hotspots often receive widespread attention from private organizations such as The Nature Conservancy. By

bringing together scientists, businesses, communities, the government and other concerned parties The Nature Conservancy can be another key player in protecting endangered species. Along with environmental agencies, local land laws can also serve a valuable purpose in protecting endangered species and their habitats. By considering areas of special interest and by utilizing resources outside of the federal government, we can more effectively preserve biodiversity.

The final issue Sheldon focuses on in her lecture is the lack of funding for the ESA. The budget for the ESA is \$5-8 billion a year over 30 years. This may seem substantial but Sheldon points out that this is less than one fourth of the money allotted to maintain the highway system in this country. Without a larger budget many endangered species will continue to be at risk. Even though the ESA attempts to protect all listed species, the legislation needs more economic support in order to conserve more of the nation's ecosystems.

Sheldon's final remarks about the ESA and the prospects of saving biodiversity lay out a plan of action for the future. She concludes that we should protect rare and common species through the ESA while also establishing biodiversity conservation that includes all types of ecosystems. In essence, we should save some of everything as Noah did with his great ark. To do this we must unify our government agencies and learn to appreciate nature more fully.

To express this sentiment that we need to save our endangered species, Sheldon used a traditional Native American story of human creation to conclude her lecture. The story of Turtle Island tells that when the first human fell from the sky the sea turtle offered to provide her with a dry place to land. But the turtle knew that his back was too

slippery and that the woman would fall off. To prepare a safe landing place, all of the animals worked together to bring up handfuls of dirt from the ocean floor and place them on the turtle's back. The animals worked hard to carry as much dirt as they could and patted the dirt together with their little paws. When the woman finally reached the earth, she landed safely on the turtles back were humans have lived ever since.

With that story about the interdependence of humans and animals Sheldon concluded with a call to action; "Since the animals and plants saved us, it's now our turn to save them."

Resource:

The Endangered Species Act:
www.fws.gov/endangered/esa.html