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Ecosystem management offers holistic approach



"When one tugs at a single thing in Nature, he finds it attached to the rest of the world."

— John Muir

Many species have become endangered because their habitat has been managed in order to maximize the abundance of one particular species or resource. For example, the management of some public forests to maximize timber harvest has endangered a number of animal and plant species. The management of our National Grasslands for cattle grazing has destroyed the habitat of many native plants and animals. Entire plant and animal communities suffer when ecosystems are managed exclusively for the benefit of one species.

Even those whose intent is to preserve the environment might cause problems when they attempt to focus on the preservation of one species. For example, when a species is declared endangered, a recovery plan is usually designed to maximize the endangered species, which in turn can create problems for other species. Any narrow one-species-at-a-time approach to natural resource management can lead to a perpetual cycle of species endangerment that ultimately destroys an ecosystem's integrity.

"At international, national and state levels, the common focus of en-

dangered species conservation has been on one species at a time," noted Gwyn McKee and Mark Ryan of the University of Missouri's School of Natural Resources in a recent Missouri Wildlife article. "This has resulted in some large, showy animals receiving the majority of the attention, sometimes to the exclusion of other less glamorous but equally threatened and equally important species."

"Perhaps this individual emphasis is the result of our tendency to consider endangered species as entities unto themselves rather than as part of an ecosystem. With limited funds available, some conservationists are asking whether this is the most efficient way to solve endangered species' problems.... Conservation efforts directed at single groups may prove to be inefficient at the least, or worse, even detrimental to other species."

Enter ecosystem management.

Ecosystem management is an attempt to maintain the health of entire ecosystems, not just one species. This holistic approach centers on maintaining and enhancing biological diversity, which prevents species from becoming endangered in the first place.

Ecosystems do not end at property lines. Ecosystem management con-

siders the land-use patterns of the surrounding area when creating a management plan. Most important, ecosystem management emphasizes that resources should only be extracted from ecosystems in ways that maintain the health of the ecosystem.

A NEW PERSPECTIVE FOR THE FOREST SERVICE

During the past decade, the U.S. Forest Service, USFS, has been increasingly criticized for its management of our public lands; public trust in the USFS's ability to be a good steward of our natural lands has faded. However, this might change as the USFS adopts ecosystem management as its central forest management principle.

"The Forest Service is committed to using an ecological approach in the future management of the National Forests and Grasslands," former USFS chief Dale Robertson said last year.

Robertson defined ecosystem management as "an ecological approach that will be used to achieve multiple-use management of National Forests and Grasslands. It means that we must blend the needs of people and environmental values in such a way that the National Forests and Grasslands represent diverse, healthy, productive and sustainable ecosystems."

USFS has developed several "rules of thumb" for ecosystem management:

- Follow nature's lead — mimic natural disturbance patterns and recovery strategies.
- Think big — consider landscape di-

versity, from local and global perspectives.

- Don't throw out any places — maintain a diverse mix of biological communities and ecosystems.
- Side with underdogs — prioritize, favoring species, communities, ecosystems or processes at risk.
- Try a different tool — diversify approaches, reduce reliance on traditional methods.

■ No forest is an island — minimize fragmentation of continuous forest and isolation of ecosystems and populations.

■ Encourage free travel — create a web of connected habitats.

■ Share with neighbors — share information and develop partnerships to achieve common resource objectives.

With a new ecosystem management policy for the Forest Service, the prophetic remarks of Sen. Hubert Humphrey at the introduction of the National Forest Management Act of 1976 may at last be heeded.

"The days have ended when the forest may be viewed only as trees, and trees viewed only as timber. The soil and the water, the grasses and the shrubs, the fish and the wildlife and the beauty that is the forest must become integral parts of the manager's thoughts and actions."

If you have a suggestion for a column, a gripe, a success story or whatever, write it down and send it to me, care of the Columbia Daily Tribune, PO Box 798, Columbia, Mo., 65205.