

# Making protected areas pay biodiversity dividends

**With human activity pushing more and more species to the brink of extinction--species abundance has declined by 40% between 1970 and 2000 alone--the need to protect biodiversity has never been more urgent. In a new essay published this week in the open-access journal *PLoS Biology*,** conservation biologist Luigi Boitani and his colleagues argue that the next meeting of the World Conservation Congress in October is the perfect opportunity to codify policies that can make significant gains in biodiversity conservation and stanch the loss of species, habitat, and ecosystem services.

Organized by the International Union for Conservation of Nature (IUCN), the meeting will bring together a large constituency of conservationists to discuss the most pressing issues in biodiversity conservation. A key issue on the agenda will be the revision of the IUCN categories of Protected Areas.

Though conservation biologists have long recognized Protected Areas' value for conserving biodiversity and for facilitating species and habitat management and recovery, these roles have not been incorporated into the parameters that the IUCN uses to categorize Protected Areas. The current IUCN Protected Area categories reflect management intent--how they should be organized and used--rather than "the basic goal of promoting the persistence of biodiversity," Boitani et al. argue. This disconnect represents a serious lost opportunity to reverse the rapid decline of the planet's natural resources.

Because Protected Areas are the basis for assessing how engaged governments are in conserving their resources, they have a considerable impact on national and international conservation policies. Boitani et al. make the case that shifting the focus of the categories toward conservation outcomes would substantially enhance their value as tools for protecting biodiversity. The authors argue that "such a redesign would reduce the subjectivity of current classifications in favor of more objective criteria, appropriately based upon definable biological components."

By basing categories on conservation objectives concerning the species, communities, or processes that are to be maintained or restored--including, for example, viability of populations or set of habitat types to be maintained--progress and successes can then be monitored and recorded. "Toward that end," the authors argue, "PAs should be defined using criteria that include any measurable aspects of the particular biodiversity features that are the primary reason for protecting that area in the first place."

With over 100,000 protected areas worldwide, the switch from management-based outcomes to biodiversity-based outcomes will have huge implications for preserving the earth's rapidly diminishing biodiversity. The IUCN is the only institution able to facilitate the change that Boitani says is so critical to international conservation efforts. While the political hurdle of obtaining international cooperation in a difficult revision of conservation efforts looms large, he says, "Our arguments are absolutely obvious, logical and sound. It is only a matter of time."

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