



Living Landscapes Program

FAQs – Frequently Asked Questions

Key concepts

- Conservation focused solely within the boundaries of national parks, or community forests, or trophy-hunting conservancies, often does not succeed because wildlife, ecological processes, and human resource uses often spill across these political borders
- To set priorities for conservation it is better to use the ecological needs of wildlife, rather than political boundaries, to define the conservation landscape
- Understanding how to prevent or minimize human-wildlife conflicts within and across land-use zones is essential to ensure the long-term survival of wildlife and wildlands
- Funding for biodiversity conservation is not growing as fast as human demand for resources and the speed that wildlife and wildlands are being lost. Consequently we need to set new priorities for conservation spending and develop more cost-effective conservation tools.
- The Living Landscapes Program is an new initiative to help develop cost-effective conservation tools within conservation landscapes defined by the needs of wildlife, and to promote the international exchange of practical conservation knowledge.

Why do we need the Living Landscapes Program?

In this complex world where growing populations and global economies are altering natural resources at a scale and pace never before seen, we need new tools to help us to reconcile people's use of the land with the needs of wildlife. By starting the Living Landscapes Program, the Wildlife Conservation Society (WCS) is continuing its long tradition of seeking innovative ways to minimize human-wildlife conflicts and ensure the long-term survival of wildlife and wildlands.

What's the mission of the Living Landscapes Program?

The WCS Living Landscapes Program is dedicated to the conservation of large, wild ecosystems. Our approach places wildlife at the center of conservation strategies, but recognizes that few places on earth remain free from human influence. The Living Landscapes Program develops and tests wildlife-based strategies for conserving these ecosystems that take into account human impact. We link monitoring of wildlife directly to assessing conservation progress. By pursuing a common set of strategies and approaches across a globally distributed set of sites, the program promotes inter-site research and learning and develops models of conservation management that are broadly applicable.

Why are wildlands important?

Today over 95% of the earth's land-surface is zoned for human uses such as building and road construction, farming, fishing, ranching and logging. Even those few remaining wild areas where

human impact has historically been minimal are being encroached upon, converted to other uses, and their plant and animal communities degraded or depleted.

We at WCS believe that conservation of wildlands is important because they are the last bastions where ecological and evolutionary processes remain largely unfettered by the influence of humans. Wildlands are extraordinary places because they still support richly diverse and abundant assemblages of plants and animals including those that are particularly susceptible to and intolerant of human behavior. Moreover, wildlands are natural laboratories that can continue to teach us much about how the natural world works.

Why are parks and reserves not enough?

At WCS we believe that protected areas must remain at the core of all nations' biodiversity conservation plans because they typically contain a higher diversity and abundance of plants and animals than landscapes managed primarily for economic reasons, where biodiversity conservation is of secondary importance. Yet, parks and reserves are always embedded in larger, human-dominated landscapes and are seldom sacrosanct. Thus, regardless of how large or small a protected area may be, the plants and animals it contains are often threatened either directly or indirectly by human resource use behaviors.

Management of parks and reserves cannot, therefore, occur in isolation from the surrounding human-dominated landscape, but must take into account where and how human behavior conflicts with biodiversity conservation, and where conservation adversely impacts human welfare. As human populations continue to expand over the next 50 years, the incentive for exploiting natural resources within protected areas will certainly increase and the need for biodiversity conservation tools that reflect this nexus of human-wildlife conflict will become even more important. The WCS Living Landscapes Program seeks to develop and test tools, to ensure the long-term persistence of wildlands and to help avoid or mitigate environmental impacts in the 95% of the globe zoned for human economic use.

Why a focus on wildlife?

Focusing on wildlife requires us to be specific about their population habitat requirements, which helps us to explicitly define the size and shape of the landscape needed to ensure the long-term persistence of these populations and the underlying ecological processes upon which they depend. Using the status of wildlife populations as a proxy for landscape health, quality or integrity, allows us to be specific about where and why conservation investments are needed, what such investments are designed to achieve, and how the success or failure of these interventions will be measured. Focusing on wildlife makes the landscape to be managed geographically tangible and ecologically meaningful, and makes the targets for, and outcomes of, conservation investments explicit and measurable.

What is a Landscape Species Approach?

The landscape species approach is conservation designed from the perspective of the needs of wildlife, rather than from the viewpoint of economic development. The approach is focused on ensuring that conservation investments are made to address the environmental needs of, and human threats to, ecologically persistent populations of one or more landscape species. By doing so, not only will landscape species and the habitats they require survive over the long-term, so to will the assemblage of other species that shelter under their ecological umbrellas.

What is a Landscape Species?

Landscape species are wildlife that typically require large, ecologically diverse areas to survive and often have significant impacts on the structure and function of natural ecosystems. Because of their habitat requirements and ranging behavior, landscape species may be particularly threatened by human alteration and use of natural landscapes. Landscape species are often cultural icons that can help generate a constituency for biodiversity conservation.

What are some examples of landscape species?

African forest elephants in Ndoki-Likouala, Congo; White-lipped peccaries in Yasuni, Ecuador; Spectacled bears in Madidi, Bolivia; Black-backed woodpeckers in northern California; Tigers in the Russian Far East; and Elephant seals of coastal Patagonia.

What must we do to implement the Landscape Species Approach?

The key objective of the Landscape Species Approach is targeting conservation actions to avoid or mitigate conflicts between people and wildlife. To do this we need to identify where human and biological landscapes intersect in time and space. This requires that we gather information in the area, sufficient to map human land use and resource management practices, and characterize the habitat use requirements of landscape species. To take action to minimize conflicts between wildlife and people we need to work closely with resource users, civil society organizations, private sector companies, and public sector agencies, to develop the constituency and capacity for wildlife conservation.

Who participates in the Living Landscapes Program and approach?

One of the primary goals of the Living Landscapes Program is to identify and engage key stakeholders in the conservation process. One way this is achieved is through a participatory and iterative threats analysis process. Stakeholders are invited to contribute data, evaluate the quality and gaps in the data, and identify a set of threats to be addressed. Participants then suggest institutions and actions to address each threat. Through this process stakeholders themselves identify problems and actors best suited to address them, identify areas for institutional strengthening or coordination and in the process strengthen their involvement and faith in the conservation process.

Why will this approach work?

Focusing on the ecological needs of a suite of landscape species will ensure that the minimum conditions for their conservation are understood. Meeting the habitat needs of, and removing threats to, landscape species will conserve the full range of habitat, plants and animals within the wildlands in which they reside.

Why does a Landscape Species Approach help me do better conservation?

Focusing only on mitigating direct threats to wildlife fails to ensure that the size, structure and quality of the landscape is sufficient to meet the ecological needs of the species. Spending scarce conservation dollars to minimize human threats to a population of wildlife within a landscape that does not provide the requisite habitat is effectively a wasted investment, as the population is

unlikely to persist even if the direct and immediate threats are removed. The landscape species approach forces us to be explicit about what we want to conserve, and to define the minimum conditions that must be retained or attained to declare conservation success. This means that conservation progress can be monitored and the success of investments measured.

How is this approach different from WWF ecoregions or CI hotspots?

In contrast to traditional efforts, the WCS Living Landscapes Program sets priorities for conservation by looking through the eyes of wildlife. It is designed to develop and test practical, site-based approaches to conserving wildlife and wildlands. Existing regional or global priority-setting strategies such as Global 200, Hotspots or Gap Analysis, remain vital to ensure that a representative sample of the world's plants, animals and landscapes receive conservation attention. But while these strategies help us target scarce resources at the most globally important biological areas, they tell us little about how to manage each priority site. Nor do they define how large or small the site should be to ensure that ecologically viable populations of plants and animals persist within the site.

Is this just a rationalization to keep studying big beasts?

No. Although large-bodied animals do have a disproportionate effect on ecosystem structure, species composition and nutrient flows relative to their abundance, and often intersect and conflict with human interests, not all landscape species will be big. The black-backed and red-cockaded woodpeckers of the northwestern and southeastern USA are certainly not the largest animals in their respective ecosystems. Yet these old-growth dependent species, whose abandoned nest sites provide shelter to numerous cavity nesting species in a fire-dominated landscape where cavities are typically scarce, are highly susceptible to old-growth forest clearing, and would be appropriately described as landscape species.

Is this just a rationalization to extend conservation efforts outside of parks?

No. The landscape species approach is a tool for using the environmental needs of wildlife to define the conservation landscape, to identify human-conservation conflicts, and to prioritize conservation investments. Though WCS is most concerned with the conservation of wildlands, the landscape species approach could be adapted for targeting conservation efforts within agro-ecosystems or suburban greenbelts.