

# GLOBAL TRENDS IN PRIVATE PROTECTED AREAS AND THEIR IMPLICATIONS FOR THE NORTHERN GREAT PLAINS

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**ABSTRACT**—Like many parts of the world, the Northern Great Plains faces immense challenges to sustainable land use. Privately owned conservation areas have emerged as a potential solution. This article reviews five global trends in so-called private protected areas and discusses their implications for the Northern Great Plains. The trends point to five recommendations to the Northern Great Plains community: (1) act now to tap rapidly growing policy support; (2) combine many models, including private protected areas that are owned by individuals and groups, formal and informal, large and small, and are dedicated to strict protection as well as sustainable use; (3) cultivate diverse revenue streams with emphasis on carbon payments, hunting, and tourism; (4) connect spatially through private-public or private-private partnerships to generate both ecological and economic benefits; and (5) cultivate a reputation for delivering high-quality products and services. The trends and recommendations should be of interest wherever landowners, policy makers, academics, and others seek to integrate economics with ecology in the Northern Great Plains.

**Key Words:** ecotourism, Northern Great Plains, private protected areas

# LESSONS LEARNED FROM BIODIVERSITY CONSERVATION IN THE PRIVATE LANDS OF LAIKIPIA, KENYA

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**ABSTRACT**—Increasingly, private land around the world is being set aside for conservation. The Laikipia District in Kenya is one area where wildlife conservation has been relatively successful on privately owned lands. This region supports a higher diversity of large mammals than any other region in East Africa, yet only 2% of the district is formally protected. Land is mostly owned and managed by private ranchers or groups of Maasai families on “group ranches.” In most private ranches, wildlife conservation and tourism have become important sources of revenue over the last two decades. Wildlife, once merely tolerated, are now considered desirable by most people. On group ranches, wildlife conservation is also gaining ground, albeit more slowly. Land on group ranches is being set aside specifically for wildlife, and income from wildlife-based tourism now supplements livestock ranching. In both types of ranches, however, land management practices may need to be refined to conserve a broader assemblage of fauna and flora. Populations of some threatened herbivores have fallen, and many ranches are experiencing woody encroachment, decreases in grass cover, and increases in bare ground and erosion. Conservation enterprises also face the challenge of achieving independence from foreign capital. They will need to diversify their income-generating activities and build local capacity. Regional coordination, though relatively strong, could be improved to provide greater scope to promote conservation. These challenges and successes illustrate the potential for private-land conservation in a region of high biodiversity.

**Key Words:** Africa, conservation, savanna, tourism, wildlife ranches

# CONSERVATION AND ECONOMIC LESSONS LEARNED FROM MANAGING THE NAMIBRAND NATURE RESERVE

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**ABSTRACT**—The NamibRand Nature Reserve, located in southern Namibia, is a private nature reserve established to protect and conserve the unique ecology and wildlife of the southwest Namib Desert. At 172,200 ha, NamibRand is one of the largest private conservation areas in southern Africa. The reserve consists of 13 former livestock farms rehabilitated into a continuous natural conservation area and shares a 100 km border with the Namib-Naukluft National Park. The reserve is a model for private conservation in southern Africa, as it demonstrates holistic biodiversity conservation balanced with financial sustainability. Innovative approaches to resource management ensure that this critical area bordering on the national park is effectively conserved. Research conducted on the reserve aims to directly benefit management of the reserve and to contribute to the national scientific knowledge base. The project is financially self-sustaining mainly through high-quality, low-impact tourism. Partnerships with local and regional neighbors, and government and other organizations, connect the reserve to a larger conservation landscape throughout Namibia, forming the foundation of the national tourism economy.

**Key Words:** biodiversity conservation, Namibia, NamibRand, nature reserve, sustainable ecotourism

# CATTLE RANCHING AND BIODIVERSITY CONSERVATION AS ALLIES IN SOUTH AMERICA'S FLOODED SAVANNAS

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**ABSTRACT**—Cattle ranching in Latin America supports wildlife conservation. Ranching probably represents one of the few land uses in which we can advance conservation goals. The approximately 950,000 km<sup>2</sup> of Bolivian, Brazilian, Paraguayan, Colombian, and Venezuelan savannas that are privately owned and dedicated to meat production provide a model for conservation programs. We present a geographic and historical description that covers several centuries and ends with descriptions of seven successful cattle ranches (three in the Venezuelan Llanos and four in the Brazilian Pantanal) where cattle ranching, ecotourism, and wildlife conservation coexist. These three activities support each other: tourism creates additional income for cattle ranchers while promoting protection of natural heritage and wildlife research.

**Key Words:** cattle ranching, Neotropical savannas, tourism, wildlife conservation

# THE ROLE OF CONSERVATION RESEARCH AND EDUCATION CENTERS IN GROWING NATURE-BASED TOURISM

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**ABSTRACT**—There are increasing numbers of private (nonprofit and for-profit) centers that carry out conservation research and education in locations of environmental concern. Such centers generate revenue streams that directly support conservation programs and also sustain surrounding human communities. This paper assesses the size of the centers' economic impacts. We conducted separate studies of the economic impacts of the Cheetah Conservation Fund (Namibia) and (jointly) the Rowe Bird Sanctuary and Whooping Crane Trust (central Nebraska, USA). We collected data on direct expenditures and surveyed visitors and volunteers on their spending. For the Cheetah Conservation Fund, we estimate total economic impact using a Social Accounting Matrix developed for Namibia to determine appropriate multipliers. For the Rowe Sanctuary and the Whooping Crane Trust, we employ the IMPLAN Pro modeling software. We find that the Cheetah Conservation Fund generates a total economic impact of US\$4.13 million per year and Rowe Sanctuary/Whooping Crane Trust generates US\$3.80 million annually; the former sustains 177 jobs and the latter creates 63 jobs. Are such impacts significant? Two considerations suggest they are. First, such centers tend to be located in remote, usually rural areas where even small impacts may be important in sustaining local human communities. Second, for Africa alone we identified some 352 active conservation centers (undoubtedly a large undercount), so if on average each had an economic impact equal to that of Cheetah Conservation Fund, their combined impact would total about \$1.5 billion per year.

**Key Words:** cheetah, conservation, economic impact, ecotourism, education center, research center, Rowe, whooping crane

# PROPOSED STANDARDS AND GUIDELINES FOR PRIVATE NATURE RESERVES IN THE NORTHERN GREAT PLAINS

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**ABSTRACT**—More than three-quarters of the land in the Northern Great Plains is privately owned and less than 2% of the region is in public protected areas; therefore, sound private-land management is critical for restoring and conserving the region’s biodiversity. Although considerable progress has been made in recent years in fostering and assembling nature reserves on private lands in various regions of the world, this approach has received little attention in North America, including the Northern Great Plains. We review here recommendations, trends and issues related to private protected areas globally and in Canada and the United States. We then discuss socioeconomic and ecological conditions that deserve particular attention in creating private protected areas, which we prefer to call “private nature reserves,” in the Northern Great Plains. We conclude with proposed standards and guidelines for the establishment and recognition of private nature reserves in the region.

**Key Words:** biodiversity, guidelines, Northern Great Plains, private nature reserves, protected areas, standards

# CONSERVING MONGOLIA'S GRASSLANDS, WITH CHALLENGES, OPPORTUNITIES, AND LESSONS FOR NORTH AMERICA'S GREAT PLAINS

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**ABSTRACT**—Mongolia and North America contain expansive grassland ecosystems that remain sparsely populated, dominated by agriculture, and support relatively isolated human communities dependent on natural resources. Until recently Mongolians raised livestock using extensive pastoralism without seriously threatening most of the region's biodiversity. Yet that changed rapidly following the recent transition from a communist, command-control economy to a democratic, free-market economy. The main challenges to protecting biodiversity on grasslands in Mongolia include overgrazing, poaching, mining, and inadequate management, training, and resources. Mongolia and the Great Plains both retain great opportunities for biodiversity conservation that could also benefit local people. Mongolia has begun embracing nature-based tourism as a means of providing additional jobs and enhanced livelihoods to local communities on its steppe grasslands. Nature-based tourism development in Mongolia may provide a model for conserving biodiversity in the Great Plains. Similar developments are beginning in the Great Plains but have focused primarily on big game hunting and dude ranches. Expanding the model in the Great Plains to include Native American cultures and wildlife viewing may offer alternatives that help restore biodiversity and enhance livelihoods.

**Key Words:** conservation, Mongolia, nature-based tourism, pastoralism, rangelands, wildlife

# THE ROLE OF ECOTOURISM IN BIODIVERSITY AND GRASSLAND CONSERVATION IN BOTSWANA

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**ABSTRACT**—Botswana has a variety of ecosystems, all of which support a multitude of wildlife species. The Kalahari is a vast semidesert that covers over 84% of the country. Grasslands along with scattered trees and drought-resistant undergrowth dominate large tracts of the Kalahari's landscape. The northeastern Kalahari extends into the wetter environments of Botswana—the Okavango Delta, the Savuti, and the Chobe—within which grassland habitats support abundant wildlife species. Botswana is unique in that most of its biodiversity remains intact, with a higher percentage of its total landmass conserved than any other country. Botswana achieves this level of protection primarily through ecotourism, which operates at several levels in working toward biodiversity conservation. Government policy on tourism aids ecosystem conservation in Botswana by employing a high-income, low-volume tourism policy. This paper examines and gives specific examples of where and how Botswana has used ecotourism as a tool for biodiversity and grassland conservation. It further looks at the other factors that play a role in successfully conserving Botswana's grassland habitats.

**Key Words:** ecotourism, cultural, biodiversity, grassland, Botswana, Kalahari



# TOWARD A STRATEGY FOR THE CONSERVATION AND PROTECTION OF THE WORLD'S TEMPERATE GRASSLANDS

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**ABSTRACT**—Temperate grasslands are one of the world's great biomes and were once home to some of the largest assemblages of wildlife the earth has ever known. Today these grasslands are considered the most altered terrestrial ecosystem on the planet and are recognized as the most endangered ecosystem on most continents. While species and habitat declines continue, temperate grasslands have the lowest level of protection of the world's 14 biomes. With only 4% of the biome under protected status, considerable effort will be required to increase this level of protection. Several international bodies have suggested that achieving at least a 10% level of protection should be considered a minimum, yet this is a monumental challenge in an ecosystem now so vastly altered. This paper presents a global overview of the status of protected areas in the context of the health and extent of the world's temperate grasslands and identifies the scope of remaining opportunities and regional priorities for increasing the level of protection. The Temperate Grasslands Conservation Initiative will facilitate international collaboration for, and develop a strategy to achieve, meaningful protection and sustainable use. The Northern Great Plains ecoregion is of international significance and can make a valuable contribution to the global restoration of the temperate grasslands biome.

**Key Words:** biodiversity, conservation, grasslands, protection, sustainable use, temperate