

# Chapter 14

## The Great Ape World Heritage Species Project

Richard W. Wrangham, Gali Hagel, Mark Leighton,  
Andrew J. Marshall, Paul Waldau, and Toshisada Nishida

### 1. Introduction

The mission of the Great Ape World Heritage Species Project is to offer a new way to help avert the extinction crisis that currently faces chimpanzees, bonobos, gorillas, and orangutans, and in so doing to assist the plight of these apes in captivity also.

We believe that a higher international profile for the great apes is necessary if they are to survive in the wild. Our goal is therefore to launch a collaboration that will lead to designating the great apes as World Heritage Species. This designation of World Heritage Species would denote a new internationally protected category of species. The essential notion of World Heritage Species status is that any species so named would be recognized to be of outstanding universal value, and to need special help if they are to be conserved in the wild. Outstanding universal value is the operational criterion for nominations to the World Heritage Convention, so designation of World Heritage Species might be through a protocol to this convention. The great apes would be the first set of species to be so named. Others would be expected to follow.

We consider that the designation of great apes as World Heritage Species would advance their conservation by accelerating international cooperation in three main ways, signified by *attention*, *resources*, and *mechanism*.

*Attention* means elevating awareness of the value and plight of great apes, particularly among political leaders.

*Resources* means increasing the resources needed to help the great apes, especially by tapping into the worldwide interest in great ape welfare as a result of their unique relationship with humans.

*Mechanism* means creating a new international mechanism for organizing great ape conservation in the wild, given that no such mechanism currently exists.

The Great Ape World Heritage Species Project (GAWHSP) was initiated in January 2001 with the appointment by the International Primatological Society of an Ad-hoc Committee for the World Heritage Status for the Great

# ld Heritage

Mark Leighton,  
and Toshisada Nishida

Heritage Species Project is to offer a  
sis that currently faces chimpanzees,  
in so doing to assist the plight of

l profile for the great apes is neces-  
ur goal is therefore to launch a col-  
the great apes as World Heritage  
ritage Species would denote a new  
ecies. The essential notion of World  
es so named would be recognized to  
o need special help if they are to be  
ersal value is the operational crite-  
tage Convention, so designation of  
h a protocol to this convention. The  
es to be so named. Others would be

reat apes as World Heritage Species  
celerating international cooperation  
, *resources*, and *mechanism*.

f the value and plight of great apes,

rces needed to help the great apes,  
e interest in great ape welfare as a  
umans.

ernational mechanism for organizing  
a that no such mechanism currently

Project (GAWHSP) was initiated in  
y the International Primatological  
World Heritage Status for the Great

Apes (Anon, 2001). Toshisada Nishida proposed the project, and was appointed as the first chair of GAWHSP, a position that he continues to hold. Richard Wrangham has acted as co-chair since August 2002.

Since August 2002, GAWHSP has been an independent international initiative, with activists united through email and occasional meetings in Japan, the United States, Europe, and Africa. Key participants and supporters have been the International Primatological Society, the Chimpanzee Collaboratory (initiated and funded by the Glaser Progress Foundation), the Primate Society of Japan, the Wild Chimpanzee Foundation, SAGA, Japan (Support for African/Asian Great Apes), the Great Ape Action Group and the Great Ape World Heritage Species Project, Inc. This chapter summarizes the rationale for GAWHSP, its development over its first two years, and its prospects for promoting great ape conservation. [Note that three years have elapsed since this chapter was accepted for publication in this volume, and significant developments have occurred to further efforts for collaborative international great ape conservation. These chiefly concern the evolution of GRASP, the Great Ape Survival Project Partnership established under a joint UNEP and UNESCO Secretariat ([www.unep.org/grasp](http://www.unep.org/grasp)). We provide an addendum at the end of this chapter to update readers of relevant developments while preserving the historical time frame of this chapter.]

## 2. The Severity of the Problem

Currently, six species of nonhuman great ape are recognized: Sumatran and Bornean orangutans, eastern and western gorillas, chimpanzees, and bonobos. Predictions of great ape extinctions began at least as early as 1867 (Darwin, 1871). Pessimistic forecasts have subsequently been common because of the great apes' slow reproductive rates, need for large areas, and competition with humans over habitat. Reliable data on the severity of the crisis are elusive, however, because great ape population densities are difficult to measure. Estimates therefore come from indirect data such as the predicted rates of forest loss, calculations of losses from hunting, and occasional detailed counting of nests in a few key areas. Frequent conclusions from such methods are that without dramatic changes to current conservation strategy, global extinctions of great ape species will start during the present century (e.g., Rijksen and Meijaard, 1999; Nishida *et al.*, 2001; van Schaik *et al.*, 2001). The Sumatran orangutan will probably go first. Recent survey work suggests that there are currently only 7,500 orangutans remaining on Sumatra, and that by 2010 they will become the first ape species to be functionally extinct in the wild (Wich *et al.*, 2003, Singleton *et al.*, 2004). Some estimates suggest that chimpanzees in central and eastern Africa are the only great ape that is likely to survive in the wild to 2100, and even then in much diminished numbers (Nishida *et al.*, 2001).

The problem is acute because almost all great ape populations need large expanses of fruit-rich forest. These habitats are in steep decline throughout

the tropics as a result both of conversion to agriculture and of logging. The effects of logging on ape populations vary with the intensity of timber extraction. Light to moderate selective logging need not completely destroy ape habitat, and most evidence suggests that ape populations can be maintained at somewhat reduced densities in degraded habitats (e.g., Rijksen and Meijaard, 1999; Felton *et al.*, 2003). However, as apes have long lifespans and slow reproductive rates, the long-term effects of habitat degradation on individual fitness, and therefore ultimately population viability, are difficult to assess. Nevertheless, it is reasonable to assume that habitat degradation will lower female fecundity and lead to additional time-delayed but deterministic population declines ("extinction debt" *sensu* Tilman, 1994). Furthermore, many logging operations are accompanied by collateral damage that endangers ape populations even more gravely than does the timber extraction itself. For example, unsustainable levels of hunting and elevated transmission rates of epidemic diseases associated with logging operations will likely result in the local extinction of several ape populations in Africa (Rose, 1998; Wilkie and Carpenter, 1999; Peterson, 2003).

If the crisis itself is not surprising, it has nevertheless emerged into the consciousness of the primatological community with surprising suddenness during the 1990s. Until that time, particular populations such as the Virunga gorillas were famously under threat and were the subject of major conservation efforts. The change during the last decade is that over most of their ranges, it has now become clear that the majority (rather than a select minority) of great ape populations are rapidly losing numbers and habitat (Beck *et al.*, 2001).

In spite of the newly appreciated scale of the problem, attempts to solve it have followed traditional paths. Thus, they have been directed largely toward particular populations or areas that happen to be of interest to specific supporters or donors (e.g., the Virunga gorillas, Tanjung Puting orangutans, or National Parks and Reserves such as Tai, Mahale, Korup, and others). These local efforts have had important successes. For example, the Virunga gorilla population has risen in number steadily since the 1970s and continues to flourish despite occasional episodes of disease and poaching (Robbins *et al.*, 2001).

More often, however, they have failed. Even some of the best-known great ape populations have suffered heavily. Logging has advanced rapidly in the key orangutan habitats of Tanjung Puting and Gunung Palung in Borneo, despite strong protests (C. Knott, personal communication). There has been severe population loss of gorillas in Kahuzi-Biega, Democratic Republic of Congo (DRC) (J. Yamagiwa, personal communication). In Gombe, Tanzania, only one community of chimpanzees (the research and tourism community of Kasekela) appears viable (A. Pusey, personal communication). Poaching has begun in the longest-studied bonobo community, at Wamba in DRC (T. Kano, personal communication).

It might be argued that some such reversals are bound to happen, given that there are many populations of great apes. But the emerging picture does not support such a comforting view.



to agriculture and of logging. The with the intensity of timber extraction need not completely destroy ape populations can be maintained degraded habitats (e.g., Rijksen and however, as apes have long lifespans effects of habitat degradation on population viability, are difficult to assume that habitat degradation additional time-delayed but deterioration debt" *sensu* Tilman, 1994). are accompanied by collateral even more gravely than does the sustainable levels of hunting and diseases associated with logging extinction of several ape populations (Peterson, 1999; Peterson, 2003).

as nevertheless emerged into the unity with surprising suddenness populations such as the Virunga the subject of major conservation that over most of their ranges, it (other than a select minority) of great and habitat (Beck *et al.*, 2001).

the problem, attempts to solve it have been directed largely toward to be of interest to specific support. Tanjung Puting orangutans, or (Borneo, Sumatra, and others). These for example, the Virunga gorilla in the 1970s and continues to flourish (Robbins *et al.*, 2001).

in some of the best-known great apes has advanced rapidly in the (Borneo, Sumatra, and others). There has been (Borneo, Sumatra, and others). In Gombe, (the research and tourism industry, personal communication). In Gombe, (the research and tourism industry, personal communication). In Gombe, (the research and tourism industry, personal communication).

als are bound to happen, given But the emerging picture does

Instead, we must reluctantly conclude that the current strategy is a failure. Throughout their range in the wild, great ape populations are plummeting (Nishida *et al.*, 2001). Unless something drastic reverses the trend, they are doomed to frequent national extinctions, which for some subspecies will likely become worldwide during the 21st century.

### 3. The High Value of Apes

The four species of great ape are unique among animals in their human-like characteristics, including their emotional lives, mental abilities, and genetic make-up. This phenomenon is readily recognized by untrained people who spend time with great apes in the wild or in captivity. At a scientific level, advances in genetics, comparative psychology, and ethology mean that with every decade this close proximity of humans to the great apes has become more vivid. As a result, the great apes are widely thought of as a kind of bridge between humans and the rest of the animal world.

The special concern that people feel for the great apes is particularly prominent among people who have had the opportunity for contact with individual apes. Such contact comes about not only through sanctuaries, nature tourism, and zoos but also through films, books, and magazines. Education through such means has created large numbers of people interested in seeing great apes treated in humanitarian ways.

The great apes thus have particularly high value for a wide range of people. But, so far, conservationists have done little to harness this widespread popular interest. As a result, the strong empathy that exists in many parts of the world for great apes has done little to reduce the threats to their continued survival in the wild.

This means that in an effort to ensure great ape survival, there are important opportunities to tap the energies and commitment of large numbers of passionate, educated people ranging from zoo administrators to academics, across the professions, to individuals involved in local animal shelters and the zoo-going public, and more. Many of these potential supporters have important political and economic power.

To harness these sources of support, the great apes need to be given both a substantially higher international profile and a mechanism for taking advantage of it.

### 4. The Benefits of a Higher Profile for the Great Apes

The first major benefit of designating the great apes as World Heritage Species is that it would allow the passions of those who care about the great apes to be represented forcefully to key political and cultural leaders. Such leaders include powerful opinion-makers in both the non-range states and the

range states. The active support of such leaders is critical if conservation programs are going to work, and can be obtained if advocates present their case with sufficient strength, clarity and unity.

But currently, the sad fact is that the importance of the great apes has not reached many of the key decision-makers.

A few of the non-range states, such as New Zealand and the United States, have legislated support for the great apes. The United States and the European Community have provided important funds in support of great ape conservation. But the great apes have not become an object of widespread international concern. Since there are 160+ non-range states, and they control most of the world's wealth, the importance of bringing the plight of the great apes to their attention is clear.

Meanwhile, in range states, the substantial efforts of conservationists on the ground are often met with little support from political leaders. The leadership problems include tolerance of illegal activities, tacit support for viewing great apes as meat, and a lack of resolve in planning conservation.

The inattention to the problems of the great apes is easily understood. Many of these countries are faced with massive problems of war, poverty, hunger, ecological unpredictability, and corruption. And although there are some places where great apes are cherished by traditional cultural values (such as bonobos protected by the people of Wamba (Kano, 1992)), there are many others with cultural values that treat the apes as unimportant. These problems contribute to explaining why the great apes are in such a precarious state. But they do not mean that efforts to save the apes are hopeless. Instead, they mean that a particularly strong initiative on ape conservation is required as soon as possible.

Accordingly, we believe that a profile-raising legal mechanism that publicizes both the high value placed on the great apes by many people throughout the world and the prospect of great ape extinctions holds vital promise for the development of effective conservation strategies. The world's leaders need to agree that it is time to make the great apes a priority.

## 5. The Benefits of an International Treaty

The current and future efforts of so many on behalf of the great apes can only benefit from the designation of the great apes as World Heritage Species, because it is from that designation that critical legal ramifications will flow.

First, why a treaty? And, we might add, why yet another treaty? A treaty because it is a mechanism that recognizes both the sovereignty of the range states and the need for support of those range states by the international community. A treaty because a collective effort among nations, completely voluntary in nature but with the force of international law and the availability of agreed remedies for those nations that decide to participate, can be

such leaders is critical if conservation be obtained if advocates present their and unity.

the importance of the great apes has not ers.

as New Zealand and the United States, at apes. The United States and the important funds in support of great ape not become an object of widespread are 160+ non-range states, and they e importance of bringing the plight of

stantial efforts of conservationists on support from political leaders. The of illegal activities, tacit support for of resolve in planning conservation.

the great apes is easily understood. h massive problems of war, poverty, d corruption. And although there are rished by traditional cultural values le of Wamba (Kano, 1992)), there are treat the apes as unimportant. These the great apes are in such a precarious to save the apes are hopeless. Instead, iative on ape conservation is required

aising legal mechanism that publicizes apes by many people throughout the extinctions holds vital promise for n strategies. The world's leaders need apes a priority.

## ional Treaty

any on behalf of the great apes can the great apes as World Heritage tion that critical legal ramifications

ld, why yet another treaty? A treaty es both the sovereignty of the range se range states by the international ve effort among nations, completely international law and the availability that decide to participate, can be

very effective at implementing change. A treaty so that the range states that choose to participate can take the lead in the conservation of their own natural resources, in a unified cross-boundary effort. A treaty to create a vehicle for the financial, technical, and scientific support of the range states by non-range states as needed and requested. Finally, a treaty because that is an effective mechanism by which the range states that choose to do so can evaluate their internal laws and ensure their consistency with a voluntary international standard.

But we already have the Convention on International Trade in Endangered Species (CITES), and the Convention on Biodiversity, and half a dozen other treaties, so why another one? The short answer is that none of the existing treaties we have identified accomplish the same purpose as this one: to create a global protection strategy specifically for the great apes. CITES, for example, addresses cross-border trade in endangered species, and the Biodiversity Convention addresses across-the-board conservation measures for all species.

We envision that the treaty will consist of two documents: a Declaration for the Protection of the Great Apes, and a Convention. The Declaration will set forth the philosophical, moral, and scientific basis for the Convention, which will contain the substantive provisions of the treaty.

In the Declaration, signatory countries will acknowledge the close genetic relationship of great apes to humans; their exceptional intelligence, social interaction, and capacity for symbolic thought and cultural sophistication; their inherent dignity and worth; and that all these factors together entitle the great apes to the new special status of World Heritage Species, which in turn will entitle them to the protection of all signatory range states and indeed of the entire participating international community.

In essence, parties to the treaty will commit to protect the great apes from injury, imprisonment, destruction, and removal from their habitat (other than to protect them from further destruction). Specific measures will include a prohibition against activities likely to cause physical injury or death to great apes. Each signatory range state will agree to closely monitor the population, health, and well-being of the great apes, and to create educational programs designed to increase awareness of the value of and threats to the great apes. And, the internal laws and enforcement practices in each signatory nation will implement the obligations assumed in the treaty.

Non-range states, in turn, will commit among other things to providing scientific support as well as financial assistance when appropriate, and to ensuring that their own activities will not injure great apes or their habitats located in other nations.

At this time, we are eager for the Declaration to be signed by 2005. The Convention will follow, with a target date for signing of 2010. Though the date may seem remote, the process of achieving a treaty may be almost as important as the treaty itself if it promotes sufficient awareness of the problem and thereby contributes to initiatives.



## 6. The Need for an International Institution Overseeing Great Ape Conservation

The increased attention and resources promised by a higher international profile are valuable only if they are complemented with an appropriate institution for conserving and protecting the great apes. We believe that a major problem with the current system is that there is no such mechanism.

As noted above, no existing treaty aims specifically at protecting the great apes. Equally importantly, there has been no international institution responsible for the great apes (but see Addendum). There have not even been any conservation organizations dedicated to the conservation of great apes as a taxon (as opposed to advocating on behalf of either individual species, such as chimpanzees, or of animals as a whole). Nor, indeed, has there been any conservation meeting at which governments, conservation NGOs, and scientists have met to generate a series of regional plans, let alone a global plan. At no level has there been any significant attempt to organize an international conservation strategy for the great apes. Thus, conservation efforts have tended to be fragmented, and as a result, have not necessarily been well placed. They are often limited in scope and poorly informed by key general principles.

For example, basic tenets of conservation biology and population ecology clearly suggest that the best way to prevent species extinction is through the protection of a network of independent, viable populations (MacArthur and Wilson, 1967; Soulé, 1987; Primack, 1993; Pimm and Raven, 2000). It should therefore be a priority to identify those large populations of each species that might survive over the long term. Resources should be especially devoted to protecting these populations and the habitats that support them. Long-term survival of species and their geographic variability would be best insured if the risk of local extinction, from whatever cause, is spread among many of these populations.

In practice, however, few if any great ape conservation efforts have achieved the broad perspective necessary to address these major challenges (Whitten *et al.*, 2001). Instead, disproportionate effort has been put into ape populations that are so small or threatened that their long-term survival has both a low probability and a low global significance. Substantial funding has also been diverted into projects that integrate conservation and development in ways that neglect the attainment or assessment of actual conservation outcomes (Oates, 1999; Terborgh, 1999; Wells *et al.*, 1999; Whitten *et al.*, 2001). Meanwhile, some of the limited number of viable populations of each species have failed to capture the attention of conservationists. As a result, we have missed opportunities to reduce the rate of ape population declines.

We find it hard to imagine that the great apes will survive without the systematic adoption of a larger-scale integrated perspective that solves these problems. A major missing component required for the conservation of great

## Institution

on

aised by a higher international  
plemented with an appropriate  
e great apes. We believe that a  
t there is no such mechanism.  
pecifically at protecting the great  
international institution respon-  
There have not even been any  
conservation of great apes as a  
f either individual species, such  
for, indeed, has there been any  
ts, conservation NGOs, and  
gional plans, let alone a global  
icant attempt to organize an  
reat apes. Thus, conservation  
a result, have not necessarily  
cope and poorly informed by

ology and population ecology  
pecies extinction is through the  
populations (MacArthur and  
m and Raven, 2000). It should  
populations of each species that  
ould be especially devoted to  
hat support them. Long-term  
ility would be best insured if  
ise, is spread among many of

be conservation efforts have  
dress these major challenges  
e effort has been put into ape  
t their long-term survival has  
ance. Substantial funding has  
onservation and development  
ment of actual conservation  
*et al.*, 1999; Whitten *et al.*,  
of viable populations of each  
nservationists. As a result, we  
ape population declines.  
pes will survive without the  
perspective that solves these  
for the conservation of great

ape species is their management as meta-populations, without regard to national boundaries or affiliation with particular research teams or conservation organizations. Conservation efforts must take into account the need to protect several large habitat blocks that contain populations with the greatest chances of long-term viability. There is therefore the need for a formally recognized and scientifically respected international body to make decisions about the allocation of resources. This body would also help in many other ways, such as developing monitoring systems of ape populations, assessing the efficacy of various conservation efforts, coordinating the management of systems of protected areas that span several countries, and addressing the political problems of trans-national collaboration.

Accordingly, we view the first practical benefit of World Heritage Species status as the establishment of an international institution dedicated to the protection of the great apes. We conceive of some form of "International Great Ape Commission," which would bring governments, scientists, and NGOs together into a common forum for recognizing the global concern about the great apes, and for planning, implementing, and monitoring an appropriate conservation strategy. A recent collaborative effort to address the conservation crisis related to the spread of the Ebola virus through many separate gorilla populations in Central West Africa is encouraging in this respect. Researchers, policy-makers, and conservation professionals have stepped back from the concerns of their specific areas to seek a broad solution. The creation of a formal international institution would provide the mechanism and have the authority to address such crises quickly and efficiently.

Such a commission could in theory develop out of existing institutions. For example, it is possible that it might evolve out of the recently instituted Great Apes Survival Project (GRASP) of the United Nations Environmental Programme (UNEP) and the United Nations Educational, Scientific and Cultural Organization (UNESCO), or the Primate Specialist Groups of the International Union for the Conservation of Nature (IUCN). We would welcome such a development. A key aim of the Great Ape World Heritage Species Project, therefore, is to promote the establishment of some such mechanism for uniting and accelerating current efforts.

As this chapter goes to press, GAWHSP is working with UNESCO and UNEP to plan a "summit meeting" on the great apes. We hope that one outcome of this meeting will be such a commission.

## 7. The Value Problem in Conservation

The GAWHSP proposal is that the great apes be formally recognized at the global level as having outstanding universal value for all mankind.

But for at least two reasons this proposal is problematic for many conservationists. First, it challenges the conventional wisdom that all nonhuman species should be treated equally. As Hargrove (1989) wrote, the predominant

organizations, individuals, and governments in



quest in environmental ethics has been for a nonanthropocentric philosophy of conservation. This tends to lead to the view that all life has equal inherent value (e.g., Naess, 1986).

Accordingly, the priorities for conservationists are to save as many forms of life as possible, which they do by directing resources to those species that are most endangered (Hargrove, 1989; Harcourt, 2000), and to areas containing particularly high biodiversity (Myers, 1988; Mittermeier *et al.*, 1998; Olson and Dinerstein, 2000). (Depending on how these guidelines were interpreted, some species of great apes would not be given special attention. For example, there are many species more immediately threatened than the great apes; and the first 24 "biodiversity hotspots" identified by Mittermeier *et al.* (1998) did not include gorilla or bonobo habitat.)

The GAWHSP argument that the great apes should be given a special conservation status has therefore sometimes been seen as a threat to this conventional conservationist philosophy. For example, the concern has been expressed by some people that efforts to save more threatened species of primates, such as some gibbons and monkeys, would be undermined if the great apes become "World Heritage Species."

However, although endangerment and biodiversity are key criteria for setting conservation priorities, they need not be the only ones. In practice, different species are valued for many different reasons, including economic, spiritual, scientific, educational, and strategic reasons, as well as their uniqueness (Hunter, 1996; Kellert, 1997). Particular species or taxa often tend to be singled out for special attention, including those that are more closely related to humans. For example, the U.S. Fish and Wildlife Service (1981–1983) assumed that greater phylogenetic proximity to humans represented greater value to humans (e.g., mammals outranked birds) (Norton, 1987). The general public clearly feels the same way.

A focus on the great apes because of the empathy that humans feel for them, therefore, fits public sentiment and can be used to the advantage of other species, including the small apes (gibbons and siamang) and other primates. We suggest that new ways of raising public awareness will bring new economic, political, and activist resources to the problem. Furthermore, because the great apes can act as umbrella species (having large home ranges that encompass many other species), flagship species (having broad and intensely personal appeal), and indicator species (being particularly sensitive to threats to their habitats), they have strong strategic value.

In fact, there is much overlap in conservation priorities of great apes versus other tropical plant and animal life. Because all great apes live at relatively low population densities, large areas need to be protected for each population. These large areas of habitat are the optimal umbrella for the conservation of all habitat and species diversity.

As noted, we also propose that the great apes be merely the first World Heritage Species. We would expect other species to follow, if they would benefit from a global support system with a new international mechanism for integrating their conservation.

The second (and closely related) difficulty that GAWHSP introduces for traditional conservationist philosophy is that it aims to unite environmental ethics with support for individual interests of nonhuman species. Advocates of the latter are in conflict with the "sustainable use" paradigm of conservation. However, no great ape conservation group advocates harvest or killing of great apes, and this is illegal in every great ape range state. Thus, GAWHSP aims to enlist the passions of advocates for the individual interests of great apes in the mission of conserving these species in the wild. But, unlike those interested in individual welfare, conservationists tend to play down the importance of individuals, personalities, and emotional lives in the species that they try to save. Indeed, they often regard animal welfare as in conflict with environmentalism, particularly because an interest in welfare tends to be associated with an animal rights philosophy more concerned with human-like species than with biodiversity (Hargrove, 1989).

The GAWHSP philosophy, by contrast, is that biodiversity is an important criterion of value, but it is not the only one. For strategic reasons, we think it unwise to advocate for animal rights since the rights question involves legal and philosophical issues that are unlikely to be viewed in similar ways worldwide. Nevertheless, we view the relationship between conservationists and advocates of great ape welfare as a coalition with potentially much greater power than has to date been achieved. We expect this increased power to come partly by galvanizing widespread support from animal-welfare groups, a sector that has to date been co-opted relatively little in the conservation movement.

In sum, we suggest that the singling out of great apes for special attention is justified by popular interest, and that, rather than jeopardizing the conservation of other species, it will significantly help other species.

## 8. The Development of GAWHSP, January 2001 to January 2003

The project's first task has been to make the scientific case that the great apes need stronger protection, in order to find out whether international agencies would support efforts to obtain a higher profile for the great apes. This phase, organized by the Ad-hoc Committee for the World Heritage Status for the Great Apes, culminated at a meeting in Paris in October 2001. Various UNESCO officers (concerned with the Convention on World Heritage Sites) agreed that improved international legislation to protect great apes is desirable and practicable, and encouraged the Ad-Hoc Committee to explore ways of achieving World Heritage Species status. We were also advised not to seek modification to the 1972 Convention on World Heritage Sites, because, in practice, UN Conventions are very rarely modified.

From October 2001 to August 2002, the Ad-Hoc Committee worked with the International Committee of the Chimpanzee Collaboratory to begin the drafting of potential legislative instruments. It also approached various organizations, individuals, and governments in an attempt to gauge interest

and support for the concept of World Heritage Species status for the great apes. This led to public and private expressions of support for GAWHSP by representatives from Uganda, the Democratic Republic of the Congo, and Indonesia. Key luminaries have written letters directly in support of GAWHSP, including Jane Goodall and Edward O. Wilson.

In August 2002, GAWHSP was discussed at the International Primatological Congress in Beijing. The achievements and goals of the IPS Ad-hoc Committee for World Heritage Species for the Great Apes were reviewed first in a two-hour workshop and subsequently by the International Primatological Society (IPS) General Assembly. The General Assembly voted to approve the effort to seek World Heritage Species status for the Great Apes. The Assembly also proposed that the Ad-hoc Committee evolve into an independent body which would continue its work by attempting to develop a Convention on World Heritage Species, with the great apes as the first such species. This proposal was accepted.

Since then, the IPS Ad-Hoc Committee has therefore officially transformed itself into the Steering Committee for GAWHSP. It is this body that continues to interact with UNESCO and other organizations to develop an International Declaration, followed by a Convention, as proposed by the IPS Ad-Hoc Committee. For continuing news on these endeavors, see [www.4greatapes.com](http://www.4greatapes.com).

## 9. Addendum

This chapter was written in 2003. As it goes to press (May 2006), we wish to note several positive developments over the last three years. UNEP and UNESCO's Great Ape Survival Project (GRASP) has undergone institutional revisions that address some of these issues, and GAWHSP has been a strong supporter for GRASP's increased effectiveness. At GRASP's inaugural Council Meeting in September 2005, the Kinshasa Declaration was unanimously approved and now has been signed by nearly all government and NGO partners, with others intending to do so. The Declaration includes much of the sentiment and commitments we had hoped might be in a declaration establishing great apes as world heritage species. Further, in late 2004 GRASP incorporated a Scientific Commission, and its initial objective has been to focus GRASP actions on the identification and protection of those great ape wild populations that will preserve the genetic, ecological and cultural diversity of the great apes. This commitment is explicitly stated in the Kinshasa Declaration.

The World Conservation Union's (IUCN) Primate Specialist Group established a Section on Great Apes in 2004 that has begun addressing a number of international collaborative issues to improve great ape conservation. Chief among these have been regional workshops to develop conservation action plans for specific great ape species and subspecies. Other taxon-specific, but



Heritage Species status for the great apes. Expressions of support for GAWHSP by the Democratic Republic of the Congo, and ten letters directly in support of Edward O. Wilson.

discussed at the International Conference on the Achievements and Goals of the International Primate Specialist Group for the Great Apes were discussed subsequently by the International Primate Specialist Group Assembly. The General Assembly voted to grant Heritage Species status for the Great Apes. The Ad-hoc Committee evolved into the International Primate Specialist Group, continuing its work by attempting to secure Heritage Species status for the Great Apes, with the great apes as the focus.

The Committee has therefore officially transferred its mandate for GAWHSP. It is this body that coordinates other organizations to develop GAWHSP by a Convention, as proposed by the International Primate Specialist Group, including news on these endeavors, see

to press (May 2006), we wish to report on the last three years. UNEP and GRASP has undergone institutional changes, and GAWHSP has been a strong presence. At GRASP's inaugural Kinshasa Declaration was unanimously adopted by nearly all government and NGOs. The Declaration includes provisions that we had hoped might be in a declaration for great ape species. Further, in late 2004 session, and its initial objective has been the identification and protection of those species that serve the genetic, ecological and conservation commitment is explicitly stated in the

International Primate Specialist Group established that has begun addressing a number of issues to improve great ape conservation. Chief among these are to develop conservation action plans for each species. Other taxon-specific, but

transnational workshops have helped identify priority populations for conservation attention and funding. We expect the IUCN/PSG's Section on Great Apes and GRASP's Scientific Commission to fill mutually supportive and complementary roles. So the crisis in great ape conservation is now benefiting from international scientific collaboration and advice.

However, these positive developments have not diminished the need for vastly improved political commitment and funding, both of which would be advanced by pursuing a formal status of great apes as World Heritage Species. As we pursue this objective, it is critical to tie these elements together so this status confers tangible and sustained benefits for the protection of great ape wild populations and individuals.

**Acknowledgments.** This chapter represents the energies, ideas, and activity of many individuals and organizations, including Christophe Boesch, Debby Cox, Sally Cox, Doug Cress, Jim Else, Takeshi Furuichi, Michele Goldsmith, Jane Goodall, Chie Hashimoto, Holly Hazard, Jan van Hooff, Gilbert Isabirye-Basuta, Jamie Jones, Sonya Kahlenberg, Cheryl Knott, Sarah Luick, Tetsuro Matsuzawa, Martin Muller, Dale Peterson, Herman Pontzer, Ian Redmond, Vernon Reynolds, Tony Rose, Norm Rosen, Anne Russon, John Scherlis, Craig Stanford, Janette Wallis, David Watts, Steven Wise, and Juichi Yamagiwa. Particular thanks go to David Burmon and Kayo Burmon for their development of Great Ape World Heritage Species Project, Inc., and to the Glaser Progress Foundation for funding the Chimpanzee Collaboratory. GAWHSP also appreciates the support of the Alexander Abraham Foundation, the Carr Foundation, and the Shared Earth Foundation. TN thanks the Global Environment Research Fund from the Ministry of the Environment, Japan.

## References

- Anonymous (2001). The great ape declaration preventing the extinction of the great apes by awarding them World Heritage Status. *Pan Africa News* 8:2-17.
- Beck, B.B., Stoinski, T.S., Hutchins, M., Maple, T.L., Norton, B., Rowan, A., Stevens, E.F., and Arluke, A. (eds.). (2001). *Great Apes and Humans: The Ethics of Coexistence*. Smithsonian Institution, Washington, DC.
- Darwin, C. (1871). *The Descent of Man and Selection in Relation to Sex*. John Murray, London.
- Felton, A.M., Engstrom, L.M., Felton, A., and Knott, C.D. (2003). Orangutan population density, forest structure and fruit availability in hand-logged and unlogged peat swamp forest in West Kalimantan, Indonesia. *Biological Conservation* 114:91-101.
- Harcourt, A.H. (2000). Coincidence and mismatch of biodiversity hotspots: a global survey for the order, primates. *Biological Conservation* 93:163-175.
- Hargrove, E.C. (1989). An overview of conservation and human values: are conservation goals merely cultural attitudes? In: Western, D., and Pearl, M.C. (eds), *Conservation for the Twenty-First Century*. Oxford University Press, New York, pp. 227-231.

- Hunter, M.L.J. (1996). *Fundamentals of Conservation Biology*. Blackwell Science, Cambridge, MA.
- Kano, T. (1992). *The Last Ape: Pygmy Chimpanzee Behavior and Ecology*. Stanford University Press, Stanford, CA.
- Kellert, S.R. (1997). *Kinship to Mastery: Biophilia in Human Evolution and Development*. Island Press, Washington, DC.
- MacArthur, R.H., and Wilson, E.O. (1967). *Island Biogeography*. Princeton University Press, Princeton, NJ.
- Mittermeier, R.A., Myers, N., Thomsen, J.B., da Fonseca, G.A.B., and Olivieri, S. (1998). Biodiversity hotspots and major tropical wilderness areas: approaches to setting conservation priorities. *Conservation Biology* 12:516–520.
- Myers, N. (1988). Threatened biotas: 'hotspots' in tropical forests. *Environmentalist* 8:187–208.
- Naess, A. (1986). Intrinsic value: will the defenders of nature please rise? In: Soulé, M.E. (ed.), *Conservation Biology: The Science of Scarcity and Diversity*. Sinauer, Sunderland, MA, pp. 504–516.
- Nishida, T., Wrangham, R.W., Jones, J.H., Marshall, A., and Wakibara, J. (2001). Do chimpanzees survive the 21st century? In: Brookfield Zoo (ed.), *The Apes: Challenges for the 21st Century*. Chicago Zoological Society, Brookfield, IL, pp. 43–51.
- Norton, B.G. (1987). *Why preserve natural variety?* Princeton University Press, Princeton, NJ.
- Oates, J.F. (1999). *Myth and Reality in the Rain Forest: How Conservation Strategies are Failing in West Africa*. University of California Press, Berkeley, CA.
- Olson, D.M., and Dinerstein, E. (2000). The Global 2000: A representation approach to conserving the earth's most biologically valuable ecoregions. *Conservation Biology* 12:502–515.
- Peterson, D. (2003). *Eating Apes*. University of California Press, Berkeley, CA.
- Pimm, S.L., and Raven, P. (2000). Extinction by numbers. *Nature* 403:843–845.
- Primack, R.B. (1993). *Essentials of Conservation Biology*. Sinauer Associates, Sunderland, MA.
- Rijksen, H., and Meijaard, E. (1999). *Our Vanishing Relative: The Status of Wild Orang-utans at the Close of the Twentieth Century*. Tropenbos Publications, Wageningen, the Netherlands.
- Robbins, M., Sicotte, P., and Stewart, K.J. (eds.) (2001). *Mountain Gorillas: Three Decades of Research at Karisoke*. Cambridge University Press, New York.
- Rose, A. (1998). Growing commerce in bushmeat destroys great apes and threatens humanity. *African Primates* 3:6–12.
- Singleton, I.S., Wich, S., Husson, S., Stephens, S., Utami Atmoko, S., Leighton, M., Rosen, N., Traylor-Holzer, K., Lacy, R., and Nyers, O. (eds.) (2004). *Orangutan Populations and Habitat Viability Assessment: Final Report*. IUCN/SSC Conservation Breeding Specialist Group, Apple Valley, MN. [http://www.cbsg.org/reports/exec\\_sum/Orangutan PHVA04\\_LowRes.pdf](http://www.cbsg.org/reports/exec_sum/Orangutan PHVA04_LowRes.pdf)
- Soulé, M.E., (ed.) (1987). *Viable Populations for Conservation*. Cambridge University Press, Cambridge.
- Terborgh, J. (1999). *Requiem for Nature*. Island Press, Washington, DC.
- Tilman, D., May, R.M., Lehman, C.L., and Nowak, M.A. (1994). Habitat destruction and the extinction debt. *Nature* 371:65–66.
- van Schaik, C.P., Monk, K.A., and Robertson, J.M.Y. (2001). Dramatic decline in orang-utan numbers in the Leuser ecosystem, northern Sumatra. *Oryx* 35:14–25.

vation Biology. Blackwell Science, Oxford.

zee Behavior and Ecology. Stanford University Press, Stanford.

ophilia in Human Evolution and Archaeology. Princeton University Press, Princeton.

Fonseca, G.A.B., and Olivieri, S. (2000). Wilderness areas: approaches to conservation. *Conservation Biology* 12:516–520.

in tropical forests. *Environmentalist* 10:1–12.

s of nature please rise? In: Soulé, M.E., and Sutherland, S. (eds.), *Conservation and Scarcity and Diversity*. Sinauer, Cambridge, MA.

l, A., and Wakibara, J. (2001). Do we need a new world? In: Do (ed.), *The Apes: Challenges and Opportunities*. Brookfield, IL, pp. 43–51.

ety? Princeton University Press, Princeton.

rest: How Conservation Strategies are Shaping the Future. Sinauer Press, Berkeley, CA.

2000: A representation approach to conservation. *Conservation Biology* 14:1–12.

ifornia Press, Berkeley, CA.

members. *Nature* 403:843–845.

n Biology. Sinauer Associates, Sunderland, MA.

ng Relative: The Status of Wild Primates in the 21st Century. Tropenbos Publications, Wageningen, The Netherlands.

2001). *Mountain Gorillas: Three Decades of Conservation*. University Press, New York.

destroys great apes and threatens biodiversity. *Conservation Biology* 15:1–3.

Utami Atmoko, S., Leighton, M., and Sutherland, S. (eds.). 2004. Orangutan Conservation: Final Report. IUCN/SSC, Gland, Switzerland. <http://www.cbsg.org/>

df

nservation. Cambridge University Press, Cambridge.

ss, Washington, DC.

M.A. (1994). Habitat destruction and the decline of great apes. *Oryx* 30:14–25.

- Wells, M.S., Guggenheim, S., Kahn, A., Wardojo, W., and Jepson, P. (1999). *Investing in Biodiversity: A Review of Indonesia's Integrated Conservation and Development Projects*. The World Bank, Washington DC.
- Whitten, T., Holmes, D., and MacKinnon, K. (2001). Conservation biology: a displacement behavior for academia? *Conservation Biology* 15:1–3.
- Wich, S.A., Singleton, I., Utami-Atmoko, S.S., Geurts, M.L., Rijksen, H.D., and van Schaik, C.P. (2003). The status of the Sumatran orang-utan *Pongo abelii*: an update. *Oryx* 37:49–54.
- Wilkie, D.S., and Carpenter, J.F. (1999). Bushmeat hunting in the Congo Basin: An assessment of impacts and options for mitigation. *Biodiversity and Conservation* 8:927–955.

## 2. Case Study—Western-gorilla.org

### 2.1. Current Status of Western Gorilla Populations

Central Africa is one of the few remaining places in the world with high biodiversity. It is a region of great ecological and biological interest, and it is also one of the most threatened. The gorilla is one of the most iconic and charismatic species in the world, and it is also one of the most endangered. The western gorilla (*Gorilla gorilla gorilla*) is one of the two extant species of gorilla, and it is found in the rainforests of Central Africa. It is a large, powerful primate, and it is known for its intelligence and social behavior. However, its population has declined significantly due to habitat loss, poaching, and disease. The current status of western gorilla populations is a cause for concern, and it is urgent that conservation efforts be initiated to prevent their extinction.

This chapter illustrates how the conservation potential of western gorilla populations might be enhanced using a case study on western gorilla (*Gorilla gorilla gorilla*). The chapter discusses the current status of western gorilla populations, the threats to their survival, and the conservation efforts that are being undertaken to protect them. It also discusses the role of the western gorilla in its ecosystem and the importance of conserving its habitat. The chapter concludes with a discussion of the challenges facing conservation efforts and the need for continued research and action.



## Y: PROGRESS AND PROSPECTS

of Chicago, Chicago, Illinois

of organic diversity with the continuity of  
series exemplify the diversity of theoretical  
currently employed by primatologists and  
includes: primate behavior in natural habi-  
and conservation; functional morphology  
imate systematics; genetic and phenotypic  
primatology.

## MATES:

## N PRIMATES IN THE

ppenthal and Kate Elias

## Y OF MESOAMERICAN OGY, BEHAVIOR,

a, Mary Pavelka

## ENTAL BACKGROUNDS

le, Martin Pickford,

kasa

Fleagle

## BABOONS: BEHAVIORAL, PERSPECTIVES

Leigh

## MUR CATTIA IN MADAGASCAR

an, Naoki Koyama

## S AND EVOLUTION

an Dagosto

## TION

Sauther

## TEGIES

l. Nekaris

## NTURY:

and P.T. Mehlman

# Conservation in the 21st Century: Gorillas as a Case Study

Edited by

**T.S. Stoinski**

*The Dian Fossey Gorilla Fund International*

*Atlanta, Georgia, USA*

and

*Zoo Atlanta*

*Atlanta, Georgia, USA*

**H.D. Steklis**

*The Dian Fossey Gorilla Fund International*

*Atlanta, Georgia, USA*

and

*Department of Anthropology*

*Rutgers University*

*New Brunswick, New Jersey, USA*

**P.T. Mehlman**

*The Dian Fossey Gorilla Fund International*

*Atlanta, Georgia, USA*



**Springer**

T.S. Stoinski  
The Dian Fossey Gorilla Fund  
International  
800 Cherokee Avenue, SE  
Atlanta, Georgia 30315  
USA  
tstoinski@zooatlanta.org

H.D. Steklis  
HC1 Box 576  
23 Wildlife Lane  
Elgin, AZ 85611

P.T. Mehlman  
Conservation International  
2011 Crystal Drive, Suite 500  
Arlington, VA 22202

Library of Congress Control Number: 2007922443

ISBN 978-0-387-70720-4

e-ISBN 978-0-387-70721-1

Printed on acid-free paper.

© 2008 Springer Science+Business Media, LLC

All rights reserved. This work may not be translated or copied in whole or in part without the written permission of the publisher (Springer Science+Business Media, LLC, 233 Spring Street, New York, NY 10013, USA), except for brief excerpts in connection with reviews or scholarly analysis. Use in connection with any form of information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed is forbidden.

The use in this publication of trade names, trademarks, service marks, and similar terms, even if they are not identified as such, is not to be taken as an expression of opinion as to whether or not they are subject to proprietary rights.

9 8 7 6 5 4 3 2 1

springer.com