

Conservation

A Beginner's Guide

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A Beginner's Guide

Paul Jepson and Richard Ladle



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Our hope is that this book will provide an overview of modern conservation and aid and encourage anyone who cares for the natural world to get involved, not just as helpers for an existing conservation effort but as voices that will help shape how we do conservation in the twenty-first century.

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The scope of conservation

One of conservation's most audacious initiatives is taking place in the Netherlands, one of the most densely populated areas of Western Europe. The Dutch have created a 'Serengeti behind the dykes'; a completely new sort of nature reserve, where some of Europe's extinct mammals have been 'recreated' and wander freely through grassland, glade and marsh. This is not a heritage safari park but the Oostvaardersplassen reserve, just a forty-minute drive from Amsterdam. This reserve is an example of the move away from human management and manipulation of a habitat to create a 'natural' state and towards a situation where the interactions between the animals and their habitat determines the nature 'produced'. The progressive Dutch ecologists behind the Oostvaardersplassen initiative want to restore the processes and flows that create living ecosystems and are little concerned with the traditional focus on conserving pristine landscapes, rare habitats and endangered species. This experiment presses the Western conservation movement to consider its purpose: should conservation be about restoring a pre-industrial nature or creating the conditions in which a 'new nature' can emerge amidst rapid social and environmental change?

Fundamentally, the Oostvaardersplassen experiment is prompting conservationists to ask what is meant by 'nature' and 'natural'. Before the spread of agriculture, Europe was home to a diversity of large herbivores, including wild horses, wild cattle, elk, bison and deer. The numbers of many of these animals are

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now greatly diminished; the auroch (wild cow) and tarpan (wild horse) have been officially extinct since 1627 and 1876 respectively. In truth, neither species was wiped out but was transformed to suit human needs; the Dutch are using specially bred horses and cattle to develop creatures that resemble the ancestral forms in appearance and behaviour – a process known as de-domestication. This is controversial: the Dutch animal welfare lobby was appalled when cows and horses (as they see them) were allowed to starve to death during a hard winter. The ecologist in charge of the reserve argued that this was inevitable and that during their life the animals experienced natural herd behaviour; something denied to their farmed relations.

Conservation is a cultural force that encourages societies to reflect upon and regulate their relationship with the non-human world. Approaches to conservation differ markedly between countries, depending on cultural attitudes, beliefs and traditions, familiar and iconic landscapes and wildlife, people's dependence on natural resources and the power of the conservation voice. Different societies have different moral, aesthetic and practical reasons for conserving nature and different ideas of the 'natural': for many North Americans, the word evokes images of the majestic landscapes of the American West; for Europeans, notions of the pastoral idyll; and for East Asians, an infusion of ideas of harmony and balance.

The concept of conservation may have diverse philosophical roots but a relatively small suite of causes define conservation. One is the saving of a rare species from looming extinction, such as the Chatham Island robin. At the start of the 1980s, this small black bird seemed a doomed species. The last five birds lived on a tiny outcrop of rock, Little Mangere Island, 800 kilometres east of New Zealand's South Island. Little Mangere was slowly being taken over by an invasive vine that was squeezing the life out of the habitat. In a last-ditch attempt to save the species, the remaining birds were captured by the New Zealand Wildlife

Service and taken to a slightly larger island, where the vines were less of a problem. To increase their reproduction rate, the first clutch of robin eggs laid every year was removed and placed in tomtit nests, who acted as surrogate parents for the critically endangered robins. Despite breeding within a restricted gene pool, the robin population has grown every year and although the species remains endangered, there are now over 250 robins and they are no longer considered to be at imminent risk of extinction.

Another notable cause, the canvas for globally popular wildlife television programmes, is the protection of places where human populations are small. One of the most spectacular examples of such a wilderness is the Ngorongoro Conservation Area (NCA), in the highlands of Tanzania. At the heart of the NCA is the Ngorongoro crater, the world's largest unflooded caldera. The NCA has the highest density of mammalian carnivores in Africa and is a magnet for tourists and the setting for countless television documentaries. However, conspicuously missing from nearly all of these documentaries are the native inhabitants of the area – the Maasai. It is perhaps unsurprising that the Maasai do not feature strongly in the conservation narrative; they did not move into the NCA until 1959, having been forcibly evicted from the nearby Serengeti National Park. However, even this move proved temporary, as in 1974 they were evicted from the fertile grounds in the centre of the crater because the economic reality was (and largely still is) that it is the large mammals that bring in the tourists, who are generally uninterested in looking at other humans, even if they are one of the last tribes on the planet.

A third conservation concern, which has attracted considerable public attention, is the fight to stop unnecessary and wanton slaughter. The campaigns of middle-class Victorian ladies against the fashion for wearing bird plumes, the heroic efforts of 1970s Greenpeace activists against commercial hunting of whales and

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current efforts to curtail the hunting of primates for bushmeat are three of many examples in which conservationists have pressed governments, businesses and citizens to put wildlife before easy profit.

These three emblematic causes capture just a fraction of the agendas and activities of contemporary conservation. Modern conservationists have a broad and complex remit, which includes trying to reduce the impact on the natural world of markets, poverty, population growth, development, climate change and other human-induced conditions. This book is about the challenges of conservation in the modern globalised world and the varied, often ingenious, ways in which conservationists are meeting them. The biggest challenge is – perhaps surprisingly – not global warming or habitat loss (although they

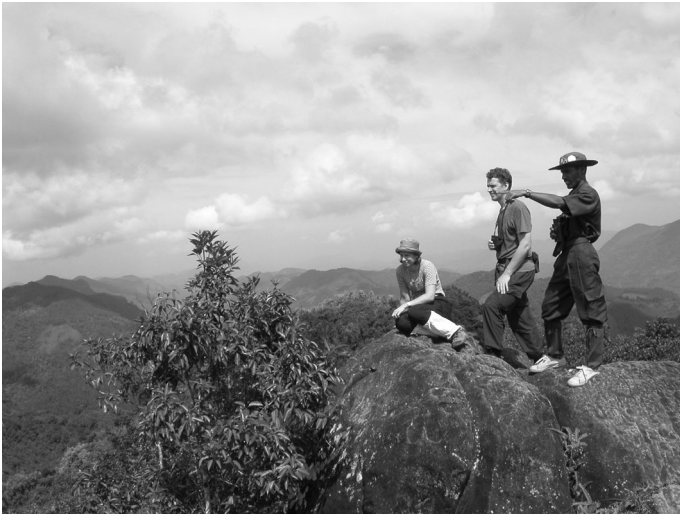


Figure 1 Visiting natural areas helps to promote national pride and can make significant contributes to national and local economies (photo © Paul Jepson)

are areas of great concern) but how to maintain influence in a world in which traditional forms of government are rapidly being replaced by devolved governments, market mechanisms and networks of transnational agents, including inter-governmental organisations, multi-national corporations and charities. In this 'brave new world' of savvy consumers and diminishing public funds, conservation can no longer rely on traditional, top-down 'command and control' politics and must fight to be heard by developing a host of exciting new strategies with which to address its diverse audiences.

One of those strategies is to bring conservation in line with international agendas on sustainable development and the alleviation of poverty. Nowadays, conservation is no longer just about protecting landscapes because of their intrinsic worth, as places for outdoor recreation, the study of ecological systems or symbols of natural cultural identity. Rather, its purpose is to maintain the ecological services, such as clean water, erosion control and crop pollination, on which human societies depend or to provide new development and economic activity for local people. These can be achieved through better marketing and management of natural resources, promotion of ecotourism or limited commercialisation of plant and animal resources.

Another strategy is to work with businesses to create incentives to protect habitats or encourage their sustainable management. This approach has been used in several major initiatives, for example where conservationists team up with other social developments such as the organic farming and Fairtrade® movements. The success of this strategy is evident on the supermarket shelves of the Western world, whose products display eco-labels and other claims of wildlife and environmental friendliness. Such efforts bring conservation on to the High Street and into people's lives. The conservation organisations that employ and promote these approaches are leading a 'quiet revolution' in how companies and markets view the environment.

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Oil and mining companies now endorse a strategy of no net loss of biodiversity, which they hope to achieve by a combination of careful operation, habitat restoration and the offsetting of the impact of their operations. These companies are setting up projects to save habitats that would otherwise be lost because they realise that investing in conservation could be in their long-term interest. Such investment mitigates the risks of damaging campaigns by conservation activists, helps companies recruit and retain the best staff and makes it easier to secure the licenses and monies that they need to operate. Leading investment houses have responded to this trend towards green consumerism by launching a raft of 'socially responsible investment' products that enable individuals and institutions to make decisions that reflect their social and environmental beliefs. This could create a virtuous circle and change the way businesses and markets relate to the natural world.

A third strategy, albeit possibly an unconscious one, is for conservation to remain responsive to wider themes in popular culture and science: seen, for example, in the growing popularity of species reintroduction and habitat restoration. These activities chime with an eclectic mix of trends and interests ranging from the popularity of television 'makeover' programmes to public participation in debates on genetic engineering and cloning; from the enduring appeal of science fiction to a deep love of gardening. Such endeavours enrich our lives without costing the Earth. Consider, for example, the hugely successful reintroduction of the red kite to south-east England in the 1980s. Probably, the majority of the twenty million or so inhabitants of the south-east had never heard of the red kite nor knew of its extermination during the seventeenth century (by the late twentieth century only a small remnant population of these birds survived in isolated Welsh valleys). Now, through conservationists' efforts, the dreary motorway commute from Oxford to London is enlivened by groups of kites soaring overhead,

walkers in the Chilterns' Area of Outstanding Natural Beauty enjoy the sight of these beautiful birds and residents of rural areas can bring drama to their bird tables by putting out the carcass of their Sunday lunch! The red kite introduction project has added a little extra something to people's lives and helped keep nature and the conservation cause in the public's consciousness.

Species such as the red kite, the white-tailed sea eagle and the timber wolf have been brought back primarily for aesthetic and cultural reasons. The driving forces behind such reintroductions are the thrill of seeing magnificent animals and the making of a tangible connection with our species' history. In the future humanity's longing to bring back lost animals may not be limited to restoring those that have been lost from the local area but are still abundant in other regions. In November 2008, researchers at Pennsylvania State University in the USA announced that they had decoded almost all the genetic information of the woolly mammoth, from the frozen 60,000-year-old remains found in Siberia. Dr Stephan Schuster, who led the research team, said in the *Daily Telegraph* (UK) that the research represented a major step in the quest to 'bring back an extinct species that modern humans have missed meeting by only a few thousand years'. Intriguingly, if the genetic engineers succeed, there is a good chance that the mammoth could be inserted into a waiting ecosystem: radical Russian ecologists have embarked on an Oostvaarderplassen-like project (dubbed Pleistocene Park) to restore the lost grasslands of Siberia by removing the pine forests and reintroducing the 'lost' large herbivore assemblage of musk ox, tarpan, reindeer and bison.

Conservation is a dynamic and eclectic cultural force, responsive to threats, opportunities, trends and ideas. Since the emergence of the modern conservation movement at the end of the nineteenth century, the demands placed on the natural world by human society have become ever more complex,

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far-reaching and severe. Perhaps the only constants are the unrelenting erosion of the diversity, abundance and extent of nature and the desire of people to do something about it.

Our aim is to explain the ways conservationists build and exert their influence in the modern world and to give the millions of people who donate to conservation causes a better idea of why their money is needed and on what it is spent. We want to provide a concise overview of the scope of conservation and the main areas of work for those planning to volunteer for conservation projects or embark on a career in conservation. Increasingly, conservation is pursued through partnerships with a range of supportive agencies and businesses: we hope to help those from other walks of life sympathetic to conservation to understand the modern agenda and identify areas of synergy and mutual interest. Finally, we hope that this overview will prompt conservation-minded people everywhere to take stock and engage in discussion about the aims and purposes of conservation. In Chapter 2, we introduce the origins of conservation and the organisations that drive the movement. In Chapter 3, we review how the conservation lobby has built its influence with governments and markets and created the frameworks for international and local action. Such has been its success that the question is not so much 'should we conserve nature?' but 'what should we conserve, how much do we need to protect and what species, habitats and regions should be our priority?' To maintain its influence and credibility, the conservation movement needs to provide timely and authoritative responses to these questions. In Chapter 4 we review the science of conservation, focusing on the fundamental questions of how science and technology can be used to monitor the state of nature and identify future problems. In Chapter 5, we introduce the main areas of direct action, focusing on conservation's three enduring pillars: establishing and governing protected areas, conserving species and managing habitats.

By this point, two things will be apparent: first, the practice of conservation is complex, costly and driven by private organisations; second, a small group of international conservation organisations have become dominant in shaping conservation's global objectives and practice. We address these points in Chapters 6 and 7, with an exposition of how conservation is financed and a review of the critiques of conservation by groups concerned with social justice and political accountability. We conclude our introduction to the world of conservation in Chapter 8, looking at trends that will shape conservation in the twenty-first century.

This book might leave you wondering where the boundaries of conservation lie and how it differs from the environmental movement or relates to animal welfare concerns. There is a considerable overlap but in our view, environmentalism is more human-centred in its motivations, concerned with maintaining a sound environment and equity in the distribution of environmental benefits and costs. The environmental movement embraces 'brown' issues, relating to pollution, toxins, waste disposal and resource extraction, and engages with the major industries whose activities affect the environment, for example energy, transport, agriculture, fisheries and forestry. In contrast, conservation is more closely aligned with 'green' issues: the protection and restoration of species, sites and habitats. Human-centred arguments are very much in the ascendency but the conservation movement retains a strong belief that humans have moral responsibilities for the non-human world and that the aesthetic and intellectual contemplation of nature enriches human culture.

Conservation attends to the welfare of plants and animals but is primarily concerned with the relationship between society and nature. In contrast, the animal welfare movement focuses on how humans treat, and relate to, animals. Animal welfare and conservation are often seen as two aspects of the same concept:

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a concern and compassion for the non-human world. Professional conservationists argue for a clearer distinction and distance themselves from actions that could be seen as sentimentalising or anthropomorphising animals. Primate rehabilitation centres are a high-profile activity in which many conservationists seek to stress the distinction. They argue that while an individual orang-utan or chimpanzee might benefit from being returned to the forest, there is little evidence to suggest that they can integrate back into wild primate groups and even less to suggest that such centres maintain the level of support needed to address the threats of deforestation and illegal capture – the main reasons why primates need to be rescued.

Such debates are healthy, indeed essential, if conservation is to remain a vibrant cultural force. It is important that arguments about what nature is, what we should conserve and why and who makes such decisions return to public debate. Climate change has recently re-established the environment as a mainstream political and media issue. While this creates an exciting opportunity to re-examine our relationship with the natural world, the over-arching seriousness of climate change might also marginalise discussion and action relating to the fate of species and natural areas. In providing a guide to the mechanics of conservation, we hope that we can enable concerned citizens to engage more effectively.