CROATIA BENEFITS FROM USA PARKS LINK

by DOUG MORRIS, Superintendent, Shenandoah National Park, USA.

THE National Park Service of the United States (USNPS) has a long tradition of sharing knowledge and skills with our counterparts from many nations. Our recent work in Croatia, however, may be unique because of the variety of organisations and goals achieved.

Croatia lies on the boundary between two climatic regions with completely different natural conditions, the Mediterranean and the central-European continental regions. Accordingly, it is a country well-endowed with great biodiversity and a variety of outstanding natural and cultural resources. The significance of these assets, both...
for their intrinsic value and as a magnet for tourists, has long been recognised through the establishment of national parks and other nature preserves. The full potential of these resources, however, was dramatically interrupted in 1991 with the beginning of some four years of regional conflict. The result of this war remains a badly damaged economy, especially in regions of the country where the fighting resulted in the emigration of large numbers of young people.

The USNPS first became engaged with the parks of Croatia in late 2000 when a delegation from the United States completed a study tour of selected park areas. This review was funded by the World Bank through an initiative labelled the Karst Ecosystem Project, which integrated the bank's focus on the preservation of places of exceptional natural value as well as areas where emigration of rural residents was particularly severe and harmful to the regional economy. The study tour visited the long-established Plitvice Lakes National Park, a renowned UNESCO World Heritage Site, and Paklenica National Park, a very popular destination on the Adriatic coast. We also visited the more recently established Risnyak National Park and the brand new Velebit Nature Park. All of these parks are located in the Karst region of Croatia and reflect the rich biodiversity of this area. The outcome of the study tour was a set of recommendations for additional collaboration and a signed Memorandum of Understanding between the USNPS and the Ministry of Environment Protection and Physical Planning, which administers the parks of Croatia.

In April 2001, having participated in the study tour in Croatia, I planned and co-ordinated a study tour for selected Croatian park managers to visit the United States, sponsored by the World Bank. This trip included visits to Washington DC and Grand Canyon, Zion, and Shenandoah National Parks.

Subsequently, a proposal was developed that would integrate the goals of the World Bank, the US Agency for International Development (USAID), and the Croatian Ministry. A novel project was designed that would blend park needs with an approach that would provide job skills and temporary employment to some 20 young people of varying ethnic cultures who had been displaced by the war. These 'interns' would be reintegrated into the country through assignment to two parks and would work to complete projects identified by the park staff. Because they were located in the war-affected areas, and were also significant tourist attractions, Plitvice Lakes and Paklenica National Parks were chosen for this programme. Tasks identified by the two park managers primarily addressed development of interpretive messages for park visitors. The Department of Interior then selected three USNPS employees to provide initial training and continuing guidance throughout the project. I continued with the project and was joined by Lisa Eckert, Superintendent of Knife River Indian Village National Historic Site, and Claire Comer, Interpretive Specialist from Shenandoah National Park.

Our success can largely be attributed to the truly outstanding group of young people selected to participate in the 10-week programme. While the 10 assigned to each of the two parks represented ethnically diverse backgrounds, their common commitment toward resource preservation soon resulted in exceptional camaraderie and teamwork. Even so, our task of establishing a foundation of knowledge with respect to varied interpretive projects was substantial. Just as in the early days of the USNPS, interpretive messages in the parks of Croatia have traditionally been designed mainly for the purpose of providing factual information about park features. While we recognised the enduring need to provide accurate information, our most challenging goal was to teach the more contemporary purpose of interpretation that is now the standard throughout the USNPS. We wanted to guide creation of interpretive messages that would not only inform, but would instill understanding and appreciation as well as inspire a personal stewardship ethic.

We soon concluded that what first appeared to be a barrier — the lack of previous experience by the interns — was probably a blessing. Without such opportunity to look backward at "how we have always done it", the interns quickly embraced the concepts and design process that we promoted. Their excellent academic backgrounds, combined with their enthusiasm to produce the best possible products, created a very positive work environment.

Much of our success must also be attributed to crucial support by the park managers and their respective staffs. At Plitvice Lakes, Park Manager Andjelko Kruzicevic, and at Paklenica, Park Manager Zoran Sikic led the way in assuring that the many needs of project were effectively accommodated. The results of our work remain in the parks and will serve visitors well into the future. At Plitvice Lakes, some 10 state-of-the-art wayside exhibits (large posters) have been prepared and will be installed before the next peak visitor season. A curriculum-based educational programme has been...
DEAR READER,

My thanks to everyone who has sent messages of support following the publication of our first two issues.

One letter contained a plea from an impoverished forestry student in Nepal who, having read a copy of NPIB in his country’s IUCN office, asked if he could receive future copies free of charge. It has always been my hope that if enough parks, conservation organisations and academic institutions support NPIB with a subscription, we would be able to continue sending complimentary copies to less fortunate colleagues working in protected areas in developing and third world countries.

As an independent publication with no external funding or subsidy, NPIB relies on those individuals and organisations who have become subscribers. My thanks to those who have given their invaluable support in this tangible way.

To date we have subscribers in 19 countries and send complimentary copies to key individuals and organisations in a further 32 countries.

My thanks also to the many park professionals who have contributed articles and news items.

Every reader is a potential contributor and I would be delighted to receive news or articles on a subject of special interest to you, or your views about items published.

Editor — Stewart Bonney

One measure of our success is an ongoing effort to design a second year of this project. As this article is being written, leadership from the Ministry, USAID, and the U.S. Department of the Interior are addressing such issues as choosing the next two parks and identifying the projects that best fit this model. We must also determine how to best select another group of young people with the skills and dedication to match those who first contributed to a foundation for the future. Equally significant has been the opportunity for many of the park staff and the interns to continue their work in the field of park interpretation. In late January a delegation of 10 Croatians, representing a combination of staff and interns, spent 10 days in the U.S. studying interpretive techniques. And, perhaps best of all, five of the recent programme participants have now been hired to join the permanent staffs of the parks they served so well.

Finally, and not least, has been the personal fulfilment of those from the U.S. National Parks who have had the opportunity to help guide the project. Our experience has been much more than simply transporting the techniques of one park system to another. It has been one of learning about the resources and culture of a wonderful country. And, especially, it has been one of joining in the camaraderie that formed among a set of very diverse individuals. Such partnerships, and the resulting friendships, clearly become the basis for future connections among park professionals.
world heritage sites
NEW WONDERS
ON THE LIST

by ROLF HOGAN

MEETING in Helsinki in December 2001, the World Heritage Committee inscribed six new natural sites on the World Heritage List and added extensions to three others. The latest additions to 'Nature's Hall of Fame' include a plethora of natural wonders from the Kluchevskoy volcano that spews 60 million tons of lava a year onto the frozen wilderness of the Russian Far East to the serene chiselled peaks of Switzerland's High Alps. The World Heritage List now includes some 144 natural sites and 23 mixed sites (properties inscribed for both natural and cultural values).

The evaluation of sites nominated for inscription on the list is carried out by IUCN — the World Heritage Committee's Advisory Body for natural heritage. IUCN staff and members of the IUCN World Commission on Protected Areas (WCPA) have the difficult task of carrying out field assessments of each nominated property.

"While we visit some of the world's most outstanding natural areas," says David Sheppard, Head of IUCN's Programme on Protected Areas, "missions can be intensive with limited time to assess the adequacy of site boundaries, park management, legal protection and support from the local population." IUCN's evaluations also involve extensive consultation with experts from around the globe who give their opinion on the merits of each nomination.

"IUCN is extremely strict in its evaluations," says Sheppard. "Only sites of outstanding universal value can make the World Heritage List." Of the 22 sites reviewed by IUCN in 2001 only nine made the grade. So it's not easy to get World Heritage designation for a park, but if it was easy what would be the point?

CENTRAL SIKHOTE-ALIN (RUSSIA)

Central Sikhote-Alin contains one of the richest and most unusual temperate forests of the world. Just north of Vladivostok on Russia's Pacific coast, the area is a mixing zone between Siberian conifer forests and the subtropical forests of China. Southern species like tiger and black bear cohabit with typical taiga species such as brown bear and lynx.

Compared with other temperate regions the number of endemic species is extremely high. This diversity is due to the fact that the area escaped the effects of the last glaciation, allowing the survival of many species which disappeared elsewhere. The difficulty of surviving in the region's extreme climate has also led to the evolution of many new species. Winter temperatures can drop to as low as -50 deg C and monsoon winds make for hot, wet summers.

The Korean pine, which produces an enormous crop of cones, is vital to the ecology of the forests. Some 30 mammal species depend on the Korean pine's nutritious nuts for survival including boar, Manchurian wapiti and black bear. The mixed broadleaf and pine forests of Central Sikhote-Alin are considered to be the largest remaining areas of intact habitat for the Siberian tiger. The new World Heritage Site includes habitat for 40 tigers, but the long-term survival of the Siberian population will depend on the maintenance of a system of protected areas, linked by selective logging areas and indigenous reserves along the 1,000 km/600 mile Sikhote-Alin mountain range.

KLUCHEVSQY NATURE PARK (RUSSIA)

The Committee extended the Volcanoes of Kamchatka World Heritage site to include the Kluchevskoy Nature Park. The Kamchatka Peninsula, with 29 active volcanoes, is one of the most active volcanic zones in the world. With this latest addition the site covers more than 3.5 million hectares/13,500 sq miles and includes 19 active volcanoes. Kluchevskoy Volcano, the highest point in eastern Eurasia, and the most active volcano in Kamchatka, has erupted explosively more than 73 times over the last 300 years. The extension is also the most glaciated region in Kamchatka — its 47 glaciers cover 270 sq km/105 sq miles.

The interplay of brooding volcanoes, geysers, bubbling mud pools with ice and active glaciers has created one of the world's most dramatic landscapes. Kamchatka's wild rivers team with salmon providing a rich food source for predators, some of which reach remarkable populations. The peninsula supports half the world population of Stellar's sea eagle, over 5,000 giant brown bear and internationally important numbers of sea otter and sea lion ("see also Page 12).

JUNGFRAU-ALETSCH BIETSCHHORN (SWITZERLAND)

Centuries before the advent of alpine skiing, tourists flocked to the High Alps of Switzerland. They came to see the breath-taking North Wall — a 25 km/15 mile vista of some of the most outstanding peaks in the Alps. Centred on the mountains of Eiger, Mönch and Jungfrau, the North Wall has inspired writers and painters since the 1700s.

The glaciers of the last ice age carved this dizzying landscape of jagged snow-capped peaks and sheer-walled valleys. Today it is one of the most glaciated areas in the Alps and includes Europe's largest ice flow — the 23 km/14 mile Aletsch glacier.

Scientists have studied the retreating glaciers of the site since the early 19th century, providing evidence for climate change. Study of the rocks of the site tells the story of the formation of the High Alps.

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when the African continental plate slammed into the European plate some 40 million years ago. The mountains are home to a range of Alpine wildlife including lynx and ibex and the site is surrounded by Alpine pastures which are used for summer grazing as they have been for millennia. “This is probably the most pristine natural area in western Europe,” says IUCN Senior Advisor Jim Thorsell, “there could be no better choice as the first natural World Heritage Site in the Alps.”

DORSET AND EAST DEVON COAST (UK)
For a sightseer the Dorset and East Devon Coast offers a delightful panorama of cliffs, sea arches, bays and beaches. For a geologist this 150 km/95 mile stretch of coast represents 300 years of discovery and ‘textbook’ examples of landforms and processes. The cliff exposures provide an almost continuous sequence of rock formations spanning 190 million years of Earth’s history — from the early dinosaurs 260 million years ago, through the Age of Reptiles, to the mass extinction of dinosaurs and rise of the mammals 70 million years ago.

The list of geologists who worked in the area reads like a Who’s Who of the discipline. One in particular stands out — Mary Anning, who ran a fossil-hunting business during the 19th century. Her finds included the world’s first complete ichthyosaurs (a dolphin-like marine dinosaur) and many new fossil species. “She was well known throughout the whole of Europe,” noted the King of Saxony who visited Anning in 1844. Despite being an uneducated working-class woman at a time when geology was the preserve of wealthy men and discussion of evolution was considered subversive, Anning’s finds make her one of the great pioneers of geology.

The active erosion of the coast makes it an ideal location for the study of geomorphological processes such as landslides and the creation of beaches and lagoons. With each landslide more fossils are revealed. “There remains still more, much more, that the Dorset and East Devon Coast has to offer Earth sciences,” says Zofia Kielan-Jaworowska of the Polish Academy of Sciences.

Lake Turkana, the saltiest large lake in Africa, in which Southern Island is situated.

SOUTHERN ISLAND NATIONAL PARK (KENYA)
As a breeding ground for poisonous snakes, Southern Island National Park is not for the faint-hearted. The park is the latest addition to Kenya’s Lake Turkana National Parks World Heritage Site, which includes the reserves of Sibiloi and Central Island.

Turkana, the saltiest large lake in Africa, is a natural laboratory where scientists can study how plants and animals have adapted to survive in the lake’s briny waters. The lake is a key breeding area for Nile crocodile and hippopotamus and contains many unique fish species. Each year huge flocks of waterbirds, migrating south from Europe and Siberia, stop over on the lakeshore; more than 200,000 visit Southern Island alone.

The renowned fossil site of Koobi Fora is found in Sibiloi National Park on Turkana’s eastern littoral. Key hominoid fossils have been found at the site as well as plant and animal fossils that have allowed palaeontologists to reconstruct ancient environments. The shores of Turkana have contributed more to our understanding of the African past than any other area on the continent.
Above: a spectacular waterfall in Chapada de Veadeiros, one of two national parks included in the Cerrado Protected Areas designation.

Right: the pampas deer is part of the rich fauna in Emas National Park.

CERRADO PROTECTED AREAS (BRAZIL)

Brazil's Cerrado is one of the world's oldest and most diverse tropical ecosystems. Few tropical forests can boast more plant species per hectare. Brazil's second largest eco-region after the Amazon Basin, the Cerrado is an ancient tropical savanna ecosystem that deserves the "highest priority for conservation" according to WWF and the World Bank.

Despite its importance for conservation, much of Cerrado has already been converted to agriculture and cattle ranching. The two sites included in the designation — Chapada do Veadeiros and Emas National Parks — cover more than 1 million hectares/3860 sq miles at the heart of the Cerrado region.

This central area has remained stable for millions of years, acting as a species refuge through successive periods of climate change. Thus the site contains many unique species that do not occur elsewhere in the Cerrado. Scientists believe that this area will be vital for the conservation of species during the present period of global warming. The Cerrado's rich fauna is easily visible in the savanna and visitors can catch a glimpse of giant anteater, maned wolf and pampas deer.
Productive shallow waters surround the Brazilian Atlantic Islands.

BRAZILIAN ATLANTIC ISLANDS
350 km/200 miles off the coast of Brazil, submarine mountains rise 4,000 m/13,000 feet from the ocean floor to break the Atlantic's surface. The peaks of the Southern Atlantic Submarine Ridge form the islands of the Fernando de Noronha Archipelago, and coral growth on submerged mountain tops has formed the nearby Rocas Atoll. Together the islands represent more than half the insular surface of the South Atlantic Ocean. The productive shallow waters around the islands are an oasis for marine life in a relatively barren ocean. Green turtles lay their eggs on the beaches and the endangered hawksbill turtle feeds in the islands as it migrates across the Atlantic to the coast of West Africa. Shoals of tuna feed in these waters among sharks and dolphins. The islands are extremely important for gulls, with the highest concentration of tropical seabirds in the western Atlantic Ocean. Young fish and invertebrate larva disperse from the islands into the coastal waters over the entire southern Atlantic Ocean.

A spectacular feature of the site is the resident spinner dolphins of Golfinhos Bay on the main island of Fernando de Noronha. Like clockwork, every day at 7am more than a thousand dolphins swim into the bay to rest up for the day. "There is no other place in the world where you can see such a high concentration of dolphins in such a small area," says international photographer and explorer Tim Burton.

ALEJANDRO DE HUMBOLDT NATIONAL PARK (CUBA)
In the central Saqua-Baracpa mountains of north-east Cuba, in one of the least explored areas in the Caribbean, lies Alejandro de Humboldt National Park. The park is one of the most biologically diverse tropical island sites on earth. Only the islands of New Caledonia and Hispaniola surpass the plant diversity of Humboldt and its surrounding Biosphere Reserve. This exceptional diversity is the result of varied topography, rock type and geological history. A landscape of mountains, tablelands, and coastal plains formed by limestone karst and igneous pseudokarst has lead to the development of a diversity of ecosystems unmatched in the insular Caribbean. One rock in particular — serpentine — has played a major role on plant evolution in the site. Serpentine is toxic to plants and many new species have evolved to survive in otherwise hostile soils. This unique process of evolution has resulted in levels of plant endemism which are amongst the highest of any area in the world. Endemism of vertebrates and invertebrates is also very high. The park is home to Eleutherodactylus iberia, claimed to be the world's smallest frog, as well as the last remaining population of the Cuban kite. With much of the park still to be explored by scientists there are sure to be many more species awaiting discovery.

GALÁPAGOS ISLANDS (ECUADOR)
The enormous 133,000 sq km/51,350 sq mile Galápagos Marine Reserve has been added to the Galápagos National Park World Heritage Site. The marine reserve is a melting pot of species. Three distinct oceanic currents converging on the Galápagos have transported marine biota from tropical and subtropical regions of Central and South America and the Indo-Pacific to the waters off the archipelago. Endemism is high: there are almost 500 fish species, of which 51 are endemic. Warmer waters contain coral reefs and there are large numbers of dolphins as well as endemic subspecies of sea lion and fur seal. Several large cetaceans such as humpback, baleen and sperm whales also frequent the islands. The interaction of the marine and terrestrial environment is also important for many of Galápagos' unique species such as the marine iguana and the flightless cormorant. The ocean floor is also a geological hot-spot as the meeting point between the Nazca, Pacific and Cocos tectonic plates. The volcanic activity associated with this tectonic activity led to the formation of the islands and underwater lava flows, gas flows and seismic movements attest to the continuous movement of the plates. The diversity of marine life, ranging from corals to sharks to penguins, as well as the spectacular underwater geomorphology, make the Galápagos Marine Reserve one of the most exciting dive sites on earth.
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australia

COUNTING THE COST OF 'BLACK CHRISTMAS'

by Andrew Donnelly

THE 20,000 mostly volunteer firefighters of New South Wales will remember Christmas 2001 for the worst bushfires ever seen in the state.

Over the period from Christmas Day to mid-January — when rain finally doused the fires — over 647,000 hectares/1.6 million acres of New South Wales bushland had been consumed by the flames. No lives were lost, but thousands of people from villages and towns in the area had been evacuated and 170 homes were destroyed.

The federal and state governments, together with insurance agencies, are estimating the bill at around the $70 million mark, but the effects on the wildlife and biodiversity of New South Wales are much more difficult to assess.

It is known that over 420,000 hectares/1 million acres of designated national parkland have burned, with some parks suffering near total burning. Heathcote National Park, 35 km/20 miles south of Sydney, was the worst affected with 100% burning. It was feared, during the early stages of the fires, that the nearby Royal National Park was to suffer the same fate.

Established in 1879, Royal is the second oldest national park in the world after Yellowstone in the USA, and is one of the most popular parks in Australia. However, when the smoke had cleared sufficiently for National Parks and Wildlife Officials of New South Wales to make a full inspection of the damage, they estimated that around 40% of the park area had escaped burning. It will be from these areas that, if it is allowed, the park will recover its wildlife populations.

Measuring the areas burned provides a starting point for estimating the damage done, but it is a poor indicator in assessing the true impact of the fire on native wildlife. Part of the difficulty lies in the complex ecology of the Australian bush. Rainforest habitats are badly affected as they are not adapted to deal with bushfires, but in areas rich in eucalyptus forest fire is an integral part of the habitat’s cycle. It stimulates regeneration and growth, and many native plants actually need fire to complete their life cycles. Aboriginal peoples used small-scale bushfires to keep their areas of bush productive, thinning undergrowth and aiding in seed dispersal.

The problem is that the scale and frequency of the bushfires which are occurring now are out of synchronisation with the natural cycles of the plants. If fires are too severe and happen too often, new plants fail to mature. Native plants are lost from the area and, as a consequence, biodiversity declines.

Royal National Park suffered badly in the last severe bushfires to affect the region, with nearly 90% of its area burning, and the park has not had time to recover. Back-burning, a technique to try and prevent large-scale fires, will probably have to be stepped up, further hampering the re-establishment of natural biodiversity levels in some areas.

While these issues are currently being debated, Kyle Yates, spokesperson for New South Wales National Parks and Wildlife Service, indicated that a more pressing problem was the fate of many populations of endangered animals caught in the fires. “Our greatest concern is with the threatened species,” she said, explaining that those which escaped the blaze faced impoverished food resources with greater competition from other animals, including non-natives.

The greater glider, for example, a protected species of possum, tends to be able to escape the fire but it then faces possible starvation because its food source has been destroyed. These stresses on already fragile populations have potentially drastic consequences.

Of the threatened species in New South Wales, koala populations are potentially the worst affected by bushfires. Although not officially recognised as being endangered, it is recognised that the state’s population is in decline. The Australian Koala Foundation estimates that before the fires fewer than 100,000 koalas remained. Many will have perished or been injured in the flames.

Eucalypts burn quickly because of the high oil content of the leaves. Koalas are slow moving and are often caught by the speed and intensity of the fire. John Callaghan, chief ecologist of the Australian Koala Foundation, describing the koala’s attempts to evade a bushfire, said: “They would do is climb to the tops of trees and tuck themselves into a ball, covering their sensitive parts such as their nose, ears and eyes. If they manage to survive by doing this, they still often end up with severe burns and respiratory problems.”

The eucalypts that form the basis of the koala diet can take months to recover from the bushfire. As they are highly territorial, those surviving will have to move on to unburned areas of eucalypts that are likely to have already been claimed by other bears. Despite their cute appearance, they will defend their territories aggressively, causing serious injuries to each other in the process. The future of the New South Wales koala has never been more uncertain.

While these issues and how to deal with them are being debated, perhaps the most disturbing problem of all is that the majority of the fires which resulted in Black Christmas were deliberately lit. The New South Wales state premier, Bob Carr, an enthusiastic walker and conservationist, commented: “Arsonists should have their noses rubbed in the ashes they have created.”

Among all the pressures of urbanisation like loss of habitat, pollution and increased predation by non-natives, it is clear that large-scale arson is a threat which Australia’s unique wildlife cannot afford to face.
IN THE WAKE OF THE HOBBIT

THE huge box office success of the recently-released film The Fellowship of the Ring has left a number of New Zealand's national parks facing the prospect of an invasion of Hobbit fans from Australia, the USA and Europe.

This was the first of three films based on the J.R.R. Tolkien trilogy, The Lord of the Rings, all shot entirely in the North and South Islands using many locations in national parks chosen for scenic and landscape qualities which evoked the fantasy saga's mystical home of Middle Earth.

Making all three films has cost an estimated US $640 million, making it one of the largest film productions ever undertaken. A total of 150 locations in 40 different areas of New Zealand were used, almost 2,000 people were employed on production, and the film provided work for an equally large number of extras.

Mount Ruapehu, an active volcano in the central North Island's Tongariro National Park which last erupted in 1996, features in the film as Mount Doom, with flames shooting from its peak.

Permission to film the mountain, considered sacred by the Maori, was successfully negotiated only when the director, Peter Jackson, agreed to use digital effects that would help disguise the mountain's identity.

In the north-west corner of South Island, some of the film's most dramatic aerial shots were filmed around Mount Olympus and Mount Owen, and a range of locations were used further south in Fiordland National Park.

Large sections of the film were also shot in and around Queenstown at Norwest and Mavora Lakes and at Lake Wakapitu.

Although the film makers are keeping secret the details of the second and third films, The Two Towers and The Return of The King — which will be released in late 2002 and late 2003 — tour operators are already advertising Tolkien Tours of the first film's locations, despite the fact that many scenes are composed of multiple shots and digitally enhanced in the studios, making it difficult to pinpoint the exact places used.

Visits to the Tourism New Zealand website more than doubled from 2,500 to 5,300 a day after the film was released. UK tour operators reported New Zealand holiday bookings up by 20% within two weeks and predicted visitor numbers to the country could double by the end of 2002.

LEARNING FROM THE RINGS

PAUL GREEN, Conservator for the Tongariro Taupo Conservancy of the Department of Conservation, provided NPIB with the following report on Tongariro National Park’s involvement with the film makers.

COMMERCIAL filming is allowed for in the Tongariro National Park Management Plan, but there is an expectation that there will be no environmental ecological impact, and that any damage requiring restoration work will be funded by the applicant.

The most contentious issues usually associated with filming in Tongariro are associated with the request to use helicopters, off-road vehicles, horses or dogs: all elements inconsistent with the Management Plan. In other words, any commercial filming requests must comply with all other policies of the legislation and the Management Plan.

The Lord of the Rings filmed in Tongariro National Park during a five-week period in April/May 2000.

Filming was of considerable financial importance to the country and there was a great deal of community interest and support for the venture. For staff there was a great deal of negotiation with the filming company over the selection of sites and dealing with requests for helicopters, off-road vehicles and horses. Once these issues were solved it was a case of resolving how best to ensure ecological protection of the sites to be used.

Filming with large numbers of production staff and filming cast — up to 500 per day — was something we had not encountered previously! Various techniques were worked out with the company to protect the environment, which included the use of scaffolds, boardwalking and the laying of carpet over fragile alpine areas. This helped limit damage, and the boardwalks and carpets could be
removed if necessary for the final shoot.
Many valuable lessons were learnt from the filming venture.
- The impact of a large production team and the need for countless re-runs should not be overlooked. Some sites are suitable and others may not be, especially in fragile alpine areas.
- The need to brief the production crew and cast on the special qualities of the protected areas and why they are expected to be extra careful during their time on site. Often most of these people have never been in a protected area.
- The need for active liaison with the filming company prior to the selection of sites. Filming personnel may select a site without appreciating its environmental sensitivity.
- The need to receive and review a site plan to ensure that all aspects of site protection are taken into account. Films like The Lord of the Rings are big budget and if filming is permitted it is not unreasonable to expect the highest measures of site protection, like boardwalks.
- The need to have adequate on-site supervision. On some days up to four staff were required, who needed to be confident about their role and have a good relationship with senior staff in the film company. There was need for regular planning and de-brief meetings, usually daily.
- At a site like Tongariro there is a need to ensure Maori input when considering the application. Tongariro is a World Heritage Site for its cultural values in addition to its natural values. It is important that sites to be used do not conflict with these natural values.

Filming schedules and timetables can be at odds with the time needed for proper consultation with Maori.
The Department processed a national filming permit for filming at various conservation sites throughout New Zealand. I understand the amount was $50,000 NZ.
At the conservancy level we charged the filming company for staff time in disbursements involved in processing and monitoring the filming. In addition The Lord of the Rings was required to pay $70,000 NZ for restoration work.
Senior film company staff took environmental concerns seriously, but on occasions it was difficult to ensure these messages were conveyed down through cast and crew. Firm supervision by conservation staff was required at all times.

With regard to Tolkien tourists, it is hard to imagine how important it will be to visit specific filming sites rather than to visit the park per se.
Some sites would not cope environmentally without the installation of permanent boardwalks. It is very unlikely that we would like to install these boardwalks for visual reasons.
Other filming sites are adjacent to roads and would not pose a problem.

new zealand

A RECENTLY published document, The Conservation Requirements of New Zealand's Nationally Threatened Invertebrates, contains all available information on the country's 280 invertebrate classes which are priorities for conservation and lists a further 540 species that could be under threat.
Dr Alison Evans, Invertebrate Ecologist with the Department of Conservation, said: "Invertebrates deserve the greatest respect. They have managed to occupy almost every environment on earth, including the oceans, and are responsible for maintaining many life-giving processes, but now they need our help to ensure their survival.
"Invertebrates often get a bad reputation because some species are considered to be pests. In reality, a majority are beneficial to us and add greatly to biodiversity. People can support conservation work simply by spreading the message that invertebrates are vital to our ecosystems."

One rare threatened species which is cited — the robust grasshopper, Brachaspis robustus — is found mainly in the Mackenzie Basin, in the Canterbury region of South Island.
It is under threat because of changes to its habitat and predators such as hedgehogs, rats, cats, possums and introduced birds. Populations living in river channels also face periodic losses from natural flood events or large hydroelectric river releases.
(From the Canterbury Conservation News)
NATURE conservationists have learned the hard way that nature cannot be protected if the livelihoods of local people are ignored. Until the 1970s parks were often established without consulting local people, or worse by their physical removal from their lands.

Dependent on the produce of natural areas for survival, local people often have no option but to continue exploiting protected areas. High market prices encourage the over-exploitation of some species. But no longer custodians of the land, local people have little incentive to regulate their off-take for the sake of future generations. In these circumstances effective conservation is impossible without draconian measures by the authorities.

It is now clear that those who work in parks have to work with people. Well-conceived development projects in and around protected areas can help local people harvest natural products for sale or set up eco-tourism ventures.

IUCN has been working on development projects with local people at two natural World Heritage sites — Mauritania’s Banc d’Arguin on the west African coast, and the Volcanoes of Kamchatka in Russia’s far east. The Mauritanian project has helped Imraguen fishermen to build traditional boats. The boats allow the Imraguen to fish with minimal disturbance to the marine ecosystem. In Kamchatka, IUCN hopes that the sale of herbal tea and other natural products will allow local people — mostly indigenous Eveni and Koryak peoples — to develop local enterprises based on the sustainable use of the park’s resources and ultimately reduce the incentive for poaching.

Kamchatka in Russia’s far east. The Mauritanian project has helped Imraguen fishermen to build traditional boats. The boats allow the Imraguen to fish with minimal disturbance to the marine ecosystem. In Kamchatka, IUCN hopes that the sale of herbal tea and other natural products will allow local people — mostly indigenous Eveni and Koryak peoples — to develop local enterprises based on the sustainable use of the park’s resources and ultimately reduce the incentive for poaching.

THE VOLCANOES OF KAMCHATKA

Russia’s Kamchatka Peninsula is a land of fire and ice. Brooding volcanoes spew ash and clouds of noxious gases as glaciers gouge through earth and stone. Giant brown bears roam the tundra and taiga and wild rivers teem with salmon. But even this formidable landscape has become vulnerable in the wake of Russia’s speedy transition from Communism to a market economy.

With state coffers low, Russian politicians are looking to the exploitation of natural resources to bolster regional revenues. Kamchatka’s mineral deposits and abundant wildlife have not been ignored. While the government sells mining rights and licences to sport-hunters, high unemployment — as high as 80% in indigenous communities — has forced many local people to turn to poaching for survival.

In Bystrinsky Nature Park — a component of the Volcanoes of Kamchatka World Heritage site — reindeer herding, the traditional occupation of the indigenous Eveni and Koryak peoples, is no longer viable. During Soviet times state enterprises managed 20,000 reindeer in Bystrinsky, providing the mainstay of the local economy. But there was no real market in Russia for reindeer products and every year tons of reindeer meat rotted in government warehouses. When government support ended in the early 1990s the former state companies couldn’t survive. Today there are now fewer than 5,000 reindeer in Bystrinsky.

In February 2001, the IUCN project “Building partnerships for forest conservation and management in Russia” began working with communities in the settlements of Esso and Anavgai. Supported by...
the Canadian International Development Agency (CIDA), the project aims to give local people a source of income from 'non-timber forest products' or NTFPs. In Bystrinsky these include mushrooms, berries, herbal teas and medicinal plants.

With consumers in developed countries becoming more and more interested in natural and ecologically friendly products, there is a growing market to be explored. Although accurate figures are difficult to establish, the market for 'non-timber forest products' in Canada alone is conservatively estimated at over CAN$ 300 million annually.

The project has some innovative approaches to developing products for market. "We held a competition for the Best Herbal Tea Recipe and another for the Best Herbal Tea Packaging," reports Project Co-ordinator Nikolay Shmatkov. "The winners and other indigenous entrepreneurs will use these recipes and package designs to start up small businesses." Sample herbal tea products have already been produced and IUCN is using them to find markets in North America and elsewhere.

"We are connecting Bystrinsky with markets in Canada and the United States," explains Tim Brigham, project consultant, who has worked on similar initiatives with Canadian First Nations. "But we also hope to tap into markets in Japan, China and South Korea." To ensure that potential products can be harvested sustainably, the project is also setting up a research programme to monitor the impacts of harvesting on the ecosystem.

One of the basic principles of the Bystrinsky project has been the 'participatory approach' or the involvement of representatives of the local community in decision making. This allows for more pragmatic decisions, based on local experience, but also gives the community a stake in the project and develops skills that can be used to set up other businesses.

"In the long term we are hoping that people will gain the skills and self-assurance to develop their own local enterprises," says Emma Wilson, the project's specialist in
indigenous community development. “Then the general tendency towards poaching will be replaced by a tendency towards grassroots initiatives and sustainable use of natural resources.” Following the summer growing season, it is hoped that Kamchatka’s herbal tea will be on sale next autumn.

**BANC D’ARGUIN NATIONAL PARK**

Banc d’Arguin National Park is where the Sahara meets the Atlantic. The desert dunes slip into the ocean forming a myriad of sandy islands, bays and mudflats. Flocks of pelicans, spoonbills, and flamingos nest on ochre sand islands in azure waters.

The park is named after a series of underwater ridges that stretch 80 nautical miles along the coast, sheltering the Gulf d’Arguin from the Atlantic swell. The shallow gulf provides ideal conditions for the growth of aquatic vegetation — a rich food source for the park’s rich marine life. The local Imraguen people have harvested mullet here for centuries, developing a unique relationship with the bottlenose dolphin that can be witnessed to this day. Working in schools, the dolphins drive mullet towards the shore where the fishermen cut off their escape with nets. Taking advantage of the trap, the dolphins move in to seize their prey.

Over the last decade the rich fisheries of Banc d’Arguin have attracted intensive commercial interest, prompting the Imraguen to move from subsistence to a market economy. Demand from Asia has meant high local prices for shark and ray fins. Many fishermen obtained loans and bought new nets but after record catches in the first few years, catches have declined from over-fishing. The new nets also proved deadly for dolphins and sea turtles. To make matters worse, the Imraguen’s sailing launches, bought from European fishermen in the 1930s, were becoming old. Unable to repair the launches properly or build new ones, many Imraguen bought motorised boats. Although the Imraguen living within the National Park have exclusive fishing rights in its waters, this depends on their using traditional gear and sailing boats. Motorised boats are not allowed because of pollution and the disturbance they cause to wildlife. With motorised craft, the fishermen had two options: become poachers if they remained within the park or fish the less productive waters outside.

In the early 1990s, IUCN began working with the Fondation Internationale du Banc d’Arguin (FIBA) and Imraguen fishermen to help develop sustainable fisheries within the park. The original goal of the project was to teach the Imraguen marine carpentry techniques so that they could repair their launches. This would allow them to continue traditional fishing within the park. Men were trained in ship carpentry and women in sail-making.

“This was so successful,” reports the Park’s scientific and technical advisor Jean Worms, “that it was decided to train the carpenters to build new boats.” A shipyard and sail-making workshop were established and co-operatives were set up to manage them. “As of now, 14 new boats have been built and more than 40 of the remaining 85 active launches have now been repaired.”

The project has also diversified into ecotourism and 12 launches are now used for birdwatchers visiting the park, aside from their normal fishing activity. New skills and increasing tourism have also had spin-offs — for example, scale models of the Imraguen boats produced by the shipyard’s carpenters. “These are sold to tourists and help to finance the boatyard,” says Worms.

IUCN and FIBA are currently involved in helping the Imraguen to diversify their fisheries by targeting alternative species to sharks and rays. This involves monitoring harvest levels and working with the Imraguen to encourage better fishing techniques, as well as setting up co-operatives for the processing and marketing of the catch.

“Much remains to be done,” says Worms, “but the fishermen I speak to are extremely positive. With their launches seaworthy again they are in a better position to fish more wisely or to profit from tourism.”

The promotion of people’s livelihoods has become widespread practice by nature conservation groups. Experience shows that the long-term sustainable use of natural resources requires careful scientific monitoring and adaptive management that can react quickly to change. Local institutions, which involve local people in decision-making, have proved to be the most effective model for management as they allow for realistic decisions that local people are willing to put into effect.

In the long term this participation helps to develop the management skills and entrepreneurship of local people who can be, after all, the best protectors of our World Heritage. Hopefully, the future will bring plenty more boat-building and herbal tea production at our natural World Heritage sites.
tourism
WHAT PRICE A NATURE-BASED INDUSTRY?

In the second part of his report on International Trends in Parks Tourism, PROF. PAUL EAGLES discusses tourism income revenues and pricing policy, planning and management competencies, the market for nature-based tourism and the need for better data on public use of parks and protected areas.

TYPICALLY, in most countries park pricing policy involves a modest flat fee for entrance, for a vehicle or for facility use such as campsites. In many national parks no fees are charged, especially in low-use areas, in popular sites in the low season or in remote areas. In some parks fees are also charged by the park agency for specialised recreation services, equipment rental, accommodation, food services and souvenir sales.

Various studies over the past decade show that the percentage of park budgets recovered from such fees varies widely. Figures from state parks in the USA showed that in 1998, 33.8% of their budgets were recovered from various types of tourism fees — up from 17% a few years earlier. (McLean, 1999) These figures suggest that they are successfully earning higher percentages of their budgets from tourism fees. Globally there is a trend towards governments requiring parks to recover higher percentages of their budgets from tourism expenditures.

In countries without a large tax-based subsidy for park management, tourism is often the largest source of income for park agencies. Throughout Africa, for example, the parks must earn most of their operating budgets from tourism. This has led to a level of innovation in pricing policy that is worthy of note.

SOUTH AFRICA has a booming tourism industry that has expanded dramatically in the past five years and is predicted to grow substantially in the next five years. Significantly, 60% of the 5.5 million tourists who visited the country in 1997 visited a national park or game reserve.

The government of South Africa has many social objectives calling for budget allocation and, as a result, all tax-based grants to the national and provincial park systems are being phased out, leaving parks with the option of increasing income from tourism or cutting staff and services.

In 1999 the South Africa National Parks (SANP) system was at 80% budget recovery from tourism. It

"Globally there is a trend towards governments requiring parks to recover higher percentages of their budgets from tourist expenditures."

operated an impressive array of tourism businesses and a range of accommodation, from campgrounds through family cabins to hotels. All of the food and souvenir stores were agency operated and many of the tours were park operated. The current public policy goal of financial self-sufficiency involves pricing and tourism service innovation, staff reductions and more private sector involvement.

Globally, differential fees are becoming more common. Foreigners pay more, and sometimes much more, than nationals do. At high demand times prices are higher and are associated with higher service levels. Higher prices usually correspond to more services.

A few park agencies are experimenting with the licensing of intellectual property. The names and images of national parks are some of the most well-known and powerful in the world. Private corporations will often pay high sums for the use of these names and images. An example could be a park agency using one type of recreational vehicle, thereby advertising to visitors its special qualities in the park environment while the vehicle manufacturer would publicise the park as the point is made about the special features of the vehicle.

Analysis of the revenue sources for Parks CANADA for the 2000/2001 fiscal year reveals that this agency relies heavily on three sources of income — entry fees, rental and concessions and camping fees. It also shows that the agency is not taking advantage of income sources such as direct food and merchandise sales, although some income would be earned indirectly through concessionaire fees.

In AUSTRALIA most park agencies rely on only a few sources of income, typically entrance fees, some recreation service fees and accommodation fees, usually for camping. Australia has a long tradition of free public access to natural and cultural heritage assets, so much so that when the Great Barrier Reef National Marine Park proposed an increase from $1 to $6 for park visitors using commercial tourist operators, a senate parliamentary committee inquiry came to the apparently self-evident conclusion that: "It must be accepted that user charges can usually raise no more than a small percentage of total costs". This inquiry apparently did not recognise, which is commonly the case, that there are many sources of income, beyond users' fees, that can be obtained from various tourism sources.

In several countries dramatic increases in park use fees were introduced without proper client consultation, most specifically COSTA RICA and ZIMBABWE, resulting in vociferous objection and subsequent roll-back of some of the increase. The lack of knowledge of pricing policy and the meth-
ods of price adjustment is common in parks, and is visibly evident in these two examples.

Higher levels of income based on tourism require big changes within the park agency and the need for a business approach to management. This includes the ability to retain and utilise all income. Given the need for income, the park visitors become more important. Their opinions on programmes, their length of stay, their return rates, their facility and programme needs and their overall satisfaction become important management variables.

Experience reveals many resistance factors when a park agency moves from dependence upon government grants to dependence on tourism income. Nature is perceived as being universally-owned and requiring no human management. This concept creates expectations that national parks and other forms of protected areas should provide free access. Over history this concept was reinforced with pricing for access well below the production cost. In the USA, the law prohibited national park use fees for many decades. The private sector in tourism usually objects to any fees, and especially to any increase in fees.

Some private sector tourism operators act like vultures, swooping to seize the most important assets, such as accommodation and food provision. This denies the park management important income sources.

Park agencies are typically not equipped to undertake business management and this can cause their marketing, pricing policy, economics and financial expertise to be deficient. This, and other factors, lead many staff to vigorously object to a park agency operating as a business and it is common for important sectors of the public, such as environmental groups, to object to the business operation. This is often due to fears of over-commercialisation or to resistance to paying increased fees.

**TOURISM PLANNING AND MANAGEMENT COMPETENCIES**

While all national parks and protected areas have some level of visitor use, this can vary from just a few to millions of visitors per year and much of the visitor management is reactive, rather than proactive, often only taking place when some level of a problem is perceived. The parks usually provide 'take it or leave it' levels of tourism service. In other words, a type of recreation programme or facility and a level of service is provided, with the visitor free to accept this, or to not participate.

Visitors are expected to make their opinions about activities and services known through management reviews or through complaints, or not at all. It is very rare for park agencies to consistently and professionally evaluate and monitor the wants and levels of satisfaction of their visitors. It is even rarer for evaluation to be done on potential visitors or past visitors who did not return.

Very few agencies, and almost no parks, have professional expertise in leisure pricing policy, tourism economics, marketing, tourism management, social statistics, service quality or leisure studies. However, this situation is changing rapidly in several countries. For example, Parks Canada is one of the leaders in the development of high levels of competency in tourism management. This increase is stimulated by the need of the agency to gain operational income from tourism.

A low level of tourism competency occurs in park agencies where the emphasis is on resource protection and the budget comes entirely from a central government pot. However, whenever a park agency starts to move to a tourism-based budget where income from visitor services provides the income, there is a much higher emphasis given to tourism management.

In many parts of the world, the private sector is the force behind tourism in parks. It is the private sector that attracts the visitors, services their basic needs, and provides all of the tourism services. A pointed example of this is in Costa Rica, where the national parks and the wildlife refuges have low tourism competencies within the government agency. It is the private sector that has developed the country's internationally recognised, park-based ecotourism industry over the last 20 years.

**PARK TOURISM MARKET**

Is there a market for increased levels of nature-based tourism? The largest market study ever undertaken was done for British Columbia and Alberta in Canada in 1995 and it found a very large ecotourism market in Canada and the United States. In the seven metropolitan areas studied — Seattle, San Francisco, Los Angeles, Dallas, Chicago, Toronto and Winnipeg — a market of 13.2 million potential ecotourists was found. This was much larger than anticipated and parks, and the activities in the parks, were found to be very important components of the ecotravel experience.

Travel trends throughout the world point to growing markets, especially in North America, Europe and Asia. Given the large potential market size, the key issue becomes one of providing travel products that fit the market and ensuring that these products have positive economic and environmental benefits.

**VISITATION STATISTICS**

Decisions should be based upon data. The better the data, the better the chance of good decisions, yet some parks pay low attention to documenting their level of recreation use and many parks are poorly designed for documentation of visitation levels, often having many entry points, making it difficult to tabulate all entrances.

ONTARIO has a history of collecting accurate and useful park use figures, measured in visitor days of recreation use, and interestingly these show use levels increasing substantially in the late 1990s, even though fee levels increased substantially during the same period. One major reason for the increase is that the fees charged were used to provide higher levels of service, especially for camping.

Every park system has its own unique system of counting and
Paul Eagles and Marilyn Watson in the Monteverde Cloud Forest Reserve, Costa Rica.

recording its visitors. Some count all who enter, including recreationists, service vehicles, and vehicles just passing through. Some count only those who stay during the night, ignoring day visitors. Some count only those who pay. Some record the numbers of entrants, some the numbers of visitor hours, and others the numbers of visitor days.

There is a need to standardise—in parks, in countries, and globally—the definition, the collection procedures, and the reporting of park tourism statistics. When this is done, the park movement will have new and powerful data for influencing public policy discussions.

Recently the World Commission on Protected Areas released the first-ever guidelines for the measurement of public use of parks and protected areas (Hornback & Eagles, 1999). This manual is intended to assist in the standardisation of park tourism measurement. In 2001, a global tabulation of park tourism use levels began as part of the preparation of the next edition of the United Nations list of national parks and protected areas. The goal is to have the global park-use data available for the next World Parks Congress to be held in South Africa in September 2003.

TOURISM MANAGEMENT STRUCTURES

Typically parks are managed by government agencies. In this situation most staff are government employees with a hierarchical form of decision-making. Budgets are provided each year from a central government allocation, with park income being returned to a central government pot. Often visitor services, such as accommodation, tours and consumer products, are provided by concessionaires who are licensed by the agency for a period of time. This model is widespread and reasonably effective when central government provides sufficient budget.

However, it is very ineffective in several respects. The budgets are not closely tied to tourism levels, so park management is severely limited in its ability to respond to increases or other changes in visitation levels. Also the park staff recognise that the key people to please are those who provide the budget, bureaucrats and politicians. As a result the level of understanding and commitment to park visitors is often very low. This model can be problematic when the size and power of the private sector tourism overwhelms a politically weak government agency.

In this situation the selfish individual interests of the tourism operators can lead to tourism overuse. Very severe environmental degradation often occurs with this model, due to the lack of budget for the agency to handle tourism pressures.

Much experimentation with park management structures is underway. Three new models that are having success are worthy of discussion: the parastatal agency, the non-profit corporation, and the private, for-profit corporation.

A parastatal is a corporate body within government which makes its own policy, maintains internal financial operations, and has control over internal reporting and decision structures. Often a government-appointed Board of Directors functions as the overall policy and approving body, sometimes with veto powers held by a minister. This approach is in place in KENYA, TANZANIA, SOUTH AFRICA and in Ontario, CANADA, to name four examples. Advantages over the government model are numerous.

This structure is much more financially efficient. The agency can quickly establish pricing and tourism policies that enable it more effectively to tap tourism financial flows, and the ability to internally handle budgets means a better understanding of the connection between service and income,
between outflow and inflow of money. This structure usually leads to much higher levels of emphasis on park visitors, their needs and their satisfaction. This approach often has a much flatter structure, with the multiple layers of the government agency replaced by only a couple of administrative layers. The biggest disadvantage of a parastatal, seen by some, is the loss of central control by government.

Those countries with parastatal forms of park agency management are those that are most likely to earn the majority or their entire operational budget from tourism. Examples include TANZANIA National Parks, KENYA Wildlife Service, and SOUTH AFRICAN National Parks. However, it is important to note that in all three of these countries, various forms of foreign aid are very important for capital development in the parks.

Some countries utilise non-profit corporations to provide some of the tourism services. These can take the form of membership groups that provide specialised services, such as guiding, information dispersal, and recreation management. Such groups have the advantages of a parastatal plus the additional ability to mobilise large numbers of volunteers and solicit donations. However, this approach is rarely used for entire parks, probably due to the narrow focus of such groups and their lack of ability to handle the entire range of concerns required in park management.

Often for-profit private corporations provide some tourism products and services to visitors in parks. This is frequently done on a licensed concessionaire basis, where the company has a monopoly, or on a free market basis where many companies compete for the tourist market.

Occasionally experimentation is occurring where park development or park management is being turned over totally to private companies. One such case is now taking place in LESOTHO. The Lesotho Highlands Development Authority is constructing a series of massive dams in the Lesotho Highlands, for the purpose of earning income from the export of water to the large urban areas of nearby South Africa. As a remediation effort, the authority has hired a consulting firm to select, plan, design and construct a system of protected areas within the development area.

Four parks are under development, with two — the Bokong Nature Reserve and Tsehlanyane National Park — at the stage of tourism facility development. At the end of the contract period the private firm will turn over the operational parks to the fledgling national parks agency of the country. This is the only example I have ever seen of a private company given complete authority for the selection, planning, design and construction of protected areas.

Personal observation of these activities suggests that it is a highly effective effort, but the ability of the government park agency to manage the park and the tourism after the hand-over is in doubt.

**PARK TOURISM CHALLENGES**

Several countries, most specifically the USA, AUSTRALIA, and the UNITED KINGDOM, have aggressive tourism research, education, and development programmes aimed at nature-based tourism. For example, the National Parks Service of the USA has developed a suite of national cooperative research and training institutes at first-line universities in that country. Recently, the park agency in Victoria, AUSTRALIA, funded a major co-operative research and education unit at Deakin University and the recent nature tourism strategy for the State of New South Wales proposes a strengthened link between the national park agency and state universities.

No such co-operative units are found in most countries in the world. This deficiency results in a severe paucity of a professional level of expertise in the specialisation area of park tourism. There is an urgent need for the development of better connections between universities and park management. Australia is leading the way with the development of the Co-operative Research Centre for Sustainable Tourism, located in the Gold Coast Campus of Griffith University. This operation involves university, government department and private sector co-operation into cutting edge and applied tourism research. This approach appears to be functioning very well, with impressive levels of useful tourism research being published.

Parks are very important components of the nature-based tourism industry. They occupy some of the most interesting landscapes, they also have information and infrastructure that attract tourists, and they can be used within a system of linked travel routes for long-dis-
Bon Echo Provincial Park camp site, Ontario. The Canadian province has recorded substantially increased park use levels in the late 1990s.

Remote travel. However, the parks are seldom managed within a system of linked travel routes.

Many park administrations show a weak understanding of the global ecotourism market. The big exception to this situation is in Australia, with both national and state-level ecotourism strategies that explicitly deal with the parks as international destinations. The ecotourism policy and plan for the State of Queensland in Australia is one of the most mature policy documents available.

An obvious example of the lack of understanding of international tourism is the inadequacy of programmes and facilities aimed in this direction. International visitation is not directed through a well-designed system of information for international visitors. Multilingual publications are almost non-existent. Staff language ability is generally in the local language, often in English, and almost never in other important languages such as German, Spanish, or Japanese.

There is no way for international tourists to work through their travel agents to facilitate visitation to most parks. Often visitors are expected to bring all the necessary equipment for camping or outdoor recreation — a very difficult and expensive task for trips that involve air travel. There is seldom easy access to guides, specialised information, or ethnic food for international travellers.

Co-operation with airlines, tour agencies, recreation vehicle rental companies or hotel chains is rare. Parks do little to encourage, or even facilitate, the visitation by people from the country's major foreign tourism markets. Given these challenges, it is a wonder that as many international travellers find their way to parks as do. It is clear why the Lonely Planet Guides, and other similar guidebooks, have found such a global market. However, if these challenges were tackled effectively by the parks, the numbers of international visitors could increase dramatically.

Park tourism is a GLOBAL phenomenon and has a global market. Those agencies and those parks that develop suitable expertise and facilities are out-competing others. The phenomenal success of national parks and game reserves in South Africa in the last half decade shows how a sophisticated tourism approach can successfully out-compete many other similar destinations that have equally good natural resources, but less effective tourism operations.

(Some of the deficiencies outlined are due to low levels of finance. At present, the typical government agency structure results in insufficient finance to hire trained staff, to develop the research base, to develop the product line, to advertise the product, and to handle the visitors when they arrive.

The parastatal agency structures developing in many countries help self-finance this endeavour when they become operational, but there are often insufficient start-up funds. It is important for governments to recognise that one must spend money to make money.)

There is an urgent need for co-ordinated national/provincial/regional nature-based tourism strategies in most countries. These strategies would identify key policy priorities, consider which sites have potential for international ecotourism, develop recommendations for market development, provide backing to financial development, and schedule a multi-year development plan.

It has been shown many times in many parks that with sufficient expertise and finance, park tourism can be very competently managed, with low levels of negative environmental impact and high levels of positive economic impact. The key issue is developing a management framework that emphasises staff expertise in tourism and financial competence.

The next 20 years will see a major shift in park management towards much more sophisticated tourism management. Such a shift will help considerably in developing a financial system that allows for competent and successful park management.
austria/czech republic
BREAKING DOWN
THE BARRIERS

Thayatal and Podyji National Parks, on the Austro-Czech border, by ROBERT BRUNNER, Manager, Thayatal National Park.

WHEN a thunderstorm cools the air after a hot summer day, the Thayatal steams. Fed by icy water upstream from the Czech power station at Vranov, the mist thickens and seems to be trying to draw a veil over the beauty of this valley.

In the radiant midsummer sunlight, oak and beech groves provide welcome shade. On such days the small tributaries of the River Thaya, steep and deeply cut, offer a pleasant opportunity to linger.

Thayatal National Park is a park of borders, as it marks the meeting point of a dry continental climate to the east and a milder, wetter Atlantic climate to the west, resulting in a rich mixture of flora and fauna. But more relevantly in a political and historical context, it hugs a stretch of Austria’s frontier with the Czech Republic, which for more than 40 years also marked the Iron Curtain between western and eastern Europe.

On the Austrian side, the only settlement of any size inside the park is Hardegg, which with only 80 inhabitants has the distinction of being the smallest town in the country.

Seventy years ago, the Thaya — which flows south-eastward into a tributary of the Danube — was still warm, and the old swimming pool gives evidence of past summertime activities: of “summer freshness”, as they romantically called it. But with the construction of the Vranov power station the water temperature dropped. Only the anglers who recognised the Thaya’s qualities as a trout fishing river continued to enjoy it. The separation of the Eastern and Western blocs after the Second World War sealed Hardegg’s fate. Suddenly, there was no more hinterland; Hardegg had moved to the very edge of the “free” world. The Thaya bridge, nowadays a symbol of reunion, was partly dismantled.

Since the demise of the Iron Curtain and its attendant deadly stretches of barbed wire and watchtowers, the opportunity has arisen to develop a dual national park on both sides of the meandering 25 km/15 mile stretch of the Thaya which forms the international border. The Austrian part — Thayatal National Park — covers 1,330 hectares/3,285 acres, with the larger Czech part — Podyji National Park — covering 6,260 hectares/15,470 acres, and extending along the Thaya into the Czech Republic in both directions to the towns of Znojmo and Vranov, taking in an extra 20 km/12 miles of river.

Paradoxically, the Iron Curtain — which caused economic stagnation to Hardegg — also offered the best possible protection to wildlife. In the former Czechoslovakia, hardly anyone could enter the no-man’s land between the state border and the Iron Curtain fortifications, so that economic activity remained practically non-existent. On the Austrian side, a lack of incentive for economic growth in such a marginal area prevented any irreversible development.

Thayatal National Park came into existence in 2000, although two nature reserves had been established there as early as 1988. Podyji National Park was set up in 1991, soon after the fall of the Iron Curtain. But while a state border in the middle of a river may have divided countries, it could not divide ecosystems. It was relatively easy for wildlife to cross borders, or simply to ignore them.

For efficient nature conservancy, trans-border co-operation was clearly a necessity.

Even before the creation of Thayatal National Park, the envi-
Today, the Thaya river runs peacefully through the valley shared by Austria and the Czech Republic. Environment ministers of both countries and the head of Lower Austria province signed a contract to act as the basis of future common development. A bilateral commission now exists, consisting of representatives from the relevant ministries and nature protection departments, national park administrations and advisory committees. Important issues to be studied by the commission include:

- co-ordination in protected area management;
- common regulations governing fishing and game;
- combined visitor offers;
- efficient supervision and reduction of disturbance.

A 10-year management plan sets out long-term joint objectives, which in the case of Thayatal are turned into yearly management plans. These must be approved by an advisory committee and determine precisely the measures regarding natural habitat management, visitor guidance, information and necessary infrastructure.

Thayatal has been divided into three distinct zones. The first, covering over 90% of its total area, forbids any economic intervention whatsoever. The second zone permits limited activities such as the mowing of meadows to retain certain distinct habitats, and the third includes historical buildings on which preservation work can be carried out. Visitors to the national park have access to marked tracks, but some areas remain off bounds to leave flora and fauna undisturbed.

The area is being rediscovered by visitors thanks to a network of hiking trails which have been carefully conceived, developed and signposted. On the Austrian side of the international border it has been possible to walk along the banks of the Thaya for quite a while, but on the Czech side visitors have only been able to catch a glimpse of the river over short stretches. The network of trails will be extended over the next few years on both sides of the border, while cycling routes have been introduced in Podyji. For citizens of the European Union, Czech Republic and Slovakia, all that is needed to cross from one country to the other is a valid passport.

An elderly lady, on holiday in Hardegg, remembers her childhood over the border in Znojmo. "In the afternoons, I always sit beside the Thaya," she says. "I know its smell, even with my eyes shut. But I never went back over there when the Iron Curtain was built." Some hikers from outside the area who are less interested in its history go over the border to the village of Cizov for a glass of Czech beer, because it is much cheaper there.

But whatever the preference of the individual, cross-border nature conservation by Thayatal and Podyji National Parks is now providing positive proof that old prejudices, intolerance and misunderstanding can be overcome, to the benefit of both wildlife and visitors.

* For further information from AUSTRIA: Nationalpark Thayatal GmbH, A-2082 Hardegg 55. Tel: (0043) 29497005; e-mail: office@np-thayatal.at website: www.np-thayatal.at

For the CZECH REPUBLIC: Sprava Národního parku Podyji, Na Vyhledce 5, 669 03 Znojmo. Tel: (00420) 624226722; e-mail: info@nppodyji.cz website: www.nppodyji.cz

Robert Brunner (left) with other members of the parks' bilateral working group.
ltablet america/caribbean

INITIATIVE FOR PARKS IN PERIL

THE Nature Conservancy and the U.S. Agency for International Development (USAID) have announced a $30 million initiative aimed at creating "new and meaningful" protection for national parks and important natural areas throughout Latin America and the Caribbean.

Called Parks in Peril, the initiative continues and expands a decade-old partnership between the Conservancy and USAID that has already helped in-country organisations protect more than 11 million hectares/28 million acres within 37 of the region's most significant natural areas.

The objectives of the programme are to turn "paper parks" into fully functioning protected areas, improve the management of entire systems of national parks, develop a network of Latin American and Caribbean parks, and form international alliances of conservation organisations to confront threats such as unsustainable forestry practices and the conversion of tropical forests into agricultural lands.

Steve McCormick, president of The Nature Conservancy, described the rate at which plant and animal life is being lost in the region as "alarming".

He said: "More than 40 million acres of tropical rain forest are lost each year, and 50 to 150 plant and animal species become extinct every day. This initiative gives us the resources to work in partnership with conservation organisations throughout the region to identify the most critical natural habitat and protect it."

USAID will contribute $23 million to the initiative over the next five years, with The Nature Conservancy and local in-country organisations contributing $7 million.

During this period Parks in Peril will ensure sustainable protection at 11 additional national parks and reserves currently without manpow-
er and resources to conserve them. Seven sites have already been identified: in Bolivia, Ecuador, Guatemala, Jamaica, Mexico, Nicaragua and Peru.

The programme will also involve training authorities responsible for managing hundreds of other important parks and reserves. In Bolivia, for example, partner organisations at six sites will work with the government to improve its management of the country's 22 national parks.

The initiative will also help expand the existing network of partner organisations and form international alliances to find creative solutions to some of the most daunting conservation problems in the region.

SPECIES AT RISK ARE MONITORED

Particular attention is being paid to priority species found exclusively, or almost exclusively, in national parks and Parks Canada is currently engaged in producing a detailed assessment on the status of each species.

The Parks Canada Species at Risk Programme is focused on solidifying knowledge of species at risk within their protected areas and working together with partners to protect and recover species at risk within and surrounding these areas.

MY name is Erika Labuschagne and I currently work in administration for the South African National Parks Service. I would like to expand my horizons by seeking a short-term (six months to one year) work placement in a national park in Canada, the USA, Kenya, Germany or the Alps, then put the knowledge I have gained to good use when I return to South Africa.

I would be interested in any work involving administration, especially park management, operations and finance. I am 25 years old and fully computer literate.

If any of your readers can help, my e-mail address is: Erika@parks-sa.co.za
In Issue 2 of National Park International Bulletin, Gordon Miller outlined the work of the International Ranger Federation. John Senior, Manager Strategic Partnerships with Parks Victoria in Australia, here provides an update on the next IRF World Congress and its unusual venue.

THE 4th World Congress of the International Ranger Federation (IRF) has been awarded to Australia and in particular to the state of Victoria. It will be held from March 21 to 28, 2003, initially in Melbourne but with most of the event being at Wilsons Promontory National Park, some 200 kilometres/125 miles away. The Congress will be hosted by the Victorian Ranger Association (VRA) on behalf of the Australian Ranger Federation, and is being staged with significant support from Parks Victoria, the authority responsible for managing national and state parks as well as metropolitan regional parks.

Visually stunning and ecologically diverse, Wilsons Promontory National Park comprises 50,300 hectares/194 square miles situated at the southernmost tip of the Australian mainland. The Prom, as it is affectionately known, was officially reserved in 1898 and now attracts over 400,000 visits a year. Within the park at Tidal River there is a variety of roofed accommodation that will form the basis for the congress venue. Tented accommodation will also be available.

It is anticipated that the 2003 event will attract over 300 rangers from a variety of overseas countries in addition to the Australian contingent. With the core theme “Rangers at Work - Improving the Practice”, the event will comprise a range of indoor and outdoor presentations and interactive workshops in addition to site tours. The programme is being organised under the sub-themes of:

• Building Community Support,
• Managing the Masses, and
• Healthy Habitats.

Once again it is hoped to draw delegates from a wide selection of countries. A particular intent of this Congress is to attract and enable participation of rangers from developing countries, especially in the Asia-Pacific region. To this end sponsorship from public and private sector organisations is being explored.

In keeping with past practice, a programme of Shadow Rangering and technical training opportunities is being planned to follow the Congress, which will include sites across Australia.

* For more information and progressive updates, visit the web-site at: www.irf4thcongress.conf.au

south africa

KRUGER’S BUFFALO NUMBERS RISE

THE annual census of the buffalo population of the Kruger National Park (KNP) in the year 2001 yielded a population estimate of 25,155, which represents an increase of 2,900 (13%) on last year’s total. This can be ascribed to the abundant rains which have fallen (over the past three years in particular) giving rise to excellent grazing conditions and consequent high calving percentages.

This is in sharp contrast to the period between the years 1989 and 1995, when the droughts of that period reduced the population from 30,000 to below 15 000 — a decline of 52%. Since that time the population has maintained an average annual growth rate of 13%, allowing the quick recovery to levels approaching those of the late 1980s.

* Dr lan Whyte, Specialist Scientist (Large Herbivores), Kruger National Park, prepared this report.

letter

RON’S LEGACY

IN Issue 2 (Page 16) there is a reference to Ron Seale having worked in Bwindi National Park. While in East Africa, Ron helped formulate a management plan for Mount Elgon National Park, which has since been finalised and approved by the government of Uganda and is in the process of being published.

I had the pleasure of working with Ron and learned with shock the news of his sudden death. His fine work in Mount Elgon area has certainly not been forgotten.

On Page 17 there is a photograph of Professor Eagles meeting “indigenous Maasai people in Rwanda”! Sorry, but I am Maasai myself and we are not indigenous to Rwanda: the only countries in which you are likely to meet such Morans are Kenya and Tanzania.

Humphrey K. Kisioh, Co-ordinator, East African Protected Areas Programme.
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IN THE NEXT NPIB

Features in Issue 4 of National Park International Bulletin will include:
• Protected Area Network Parks – PAN Parks – strive to raise awareness of Europe’s wilderness areas and natural heritage.
• A 10-year project between the Alaska region of the US National Park Service and Russia which works towards establishing an international park through joint research and community projects.
• A report on the international conference on Monitoring and Management of Visitor Flow in Recreational and Protected Areas.
• An examination of the Visitor Payback concept in the UK’s Peak District National Park.

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