

International

New Parties to CITES

Ukraine and Iceland are the latest countries to have acceded to the Convention on International Trade in Endangered Species of Wild Fauna. Their accessions come into force on 29 March and 2 April 2000, respectively, making them the 147th and 148th Parties to CITES.

Source: CITES Secretariat, 19 January 2000.

World Bank admits to forest policy failure

In a frank internal evaluation report of its 10-year forest strategy, the World Bank has admitted that its lending was flawed, and failed to protect forests and help the poor. In 1991, the bank adopted a forest strategy aimed at deflecting long-standing criticisms that its activities had contributed to the alarming pace of global deforestation. The bank's forest policy charged it with conserving tropical moist forests and planting trees to meet the needs of the poor. The internal report admits that the 1991 policy was 'narrowly focused on 20 moist tropical forest countries and neglected other biodiversity-rich forest types that are even more endangered, more important globally, or more in need of conservation to meet the needs of the poor.' In addition, the report admits that the 1991 policy was not implemented fully.

Source: Reuters News Service, January 2000.

UN global warning

In UNEP's end-of-century review, *Global Environmental Outlook 2000*, the UN warns that time is running out to stop world-wide environmental damage. Furthermore, the UN reports that it is already too late to prevent irreversible harm to certain ecosystems such as tropical forests. The report identifies 'continued poverty of the majority of the world's inhabitants and excessive consumption by a minority' as the main causes of degradation. It

recommends that the developed world reduce massively its use of natural resources to give the rest of the world an opportunity to emerge from poverty.

Source: *Plant Talk* (2000), 20, 20.

Sustainable wood products

The Home Depot, the world's largest home improvements retailer, has promised to phase out selling wood products from endangered areas—including certain lauan from South American and South-East Asian forests, and redwood and cedar products from the ancient forest of the Pacific Northwest. Furthermore, the retailer is to give preference to 'certified' wood. To carry the 'certified' label, a supplier's wood must be tracked from the forest, through manufacturing and distribution, to the customer; it must also ensure a balance of social, economic and environmental factors. The policy change could play an important role in the protection of the world's forests.

Source: *Plant Talk* (2000), 20, 20.

Biodiversity and human health threatened by emerging diseases

An international team of scientists has identified that emerging diseases are not only a threat to human health, but also to the conservation of biodiversity. Emerging diseases of wildlife may cause epidemics in animals on a regional or global scale. For instance, conjunctivitis in house finches in the US, *Salmonella* in garden birds in Britain, and outbreaks of viral blindness in kangaroos in Australia have all been reported in recent years. The paper implicates humans as prime movers in the increasing numbers of emerging diseases. As humans move around the planet with their domesticated animals in tow, they introduce diseases to new environments. (See also *Unhealthy oceans*.)

Source: Daszak, P. et al. (2000) *Science*, 247, 443–449.

Seattle World Trade Organization meeting proves controversial

The World Trade Organization's

meeting in Seattle in December 1999 hit the headlines when thousands of people took to the streets to protest that environmental issues should not be neglected in the 'millennium round' of negotiations aimed at further removing international trade barriers. Among the targets was an agreement on tariffs for international trade in forest products. Environmentalists predicted that this would inevitably increase the rates of the destruction of the world's tropical forests unless the agreement was coupled with improved national policies to ensure sustainable timber exploitation, for example the standards and certification scheme developed by the Forest Stewardship Council (FSC).

Source: *Plant Talk* (2000), 20, 20.

CITES stony coral trade recommendations

The CITES Secretariat has identified two significant problems associated with listing genus or higher taxon only on CITES permits for CITES-listed stony corals in trade. First, lack of the species name impedes the formulation of a non-detriment finding by the scientific authority. Second, the Tenth Conference of the Parties to CITES recommend that Parties who are concerned about the acceptability of permits refuse to accept permits and certificates that do not state the name of the species (and subspecies, when appropriate).

Source: *TRAFFIC North America* (1999), 2(2), 16.

Update on the Elephant Trade Information System

At the Tenth Conference of the Parties to CITES in 1997, *TRAFFIC's* Bad Ivory Database System (BIDS) was deemed appropriate to measure the trade in ivory and other elephant products. It was subsequently decided that BIDS should be expanded to include seizures of all elephant products. The enhanced system, called the Elephant Trade Information System (ETIS), runs in parallel with Monitoring the Illegal Killing of Elephants (MIKE), and is managed by

IUCN/SSC. The findings of ETIS will be linked with those from MIKE to assess whether or not any observed trends are a result of the changes to the CITES listing and/or the resumption of legal ivory trading. Data will be subject to a preliminary analysis before the 11th Conference of the Parties in April 2000.

Source: *TRAFFIC Dispatches* (1999), 12, 5.

Global warming latest predictions

The most recent global warming predictions generated by the UK Department of the Environment has highlighted the need for urgent international action to ratify the Kyoto protocol. The latest information generated by the Hadley Centre Coupled Ocean Atmosphere Climate model, HAD CM2, predicts global temperatures will rise by 3 °C and large parts of northern South America and central and southern Africa could lose their tropical forests unless urgent action is taken.

However, the report concludes that if carbon dioxide in the atmosphere was stabilized at 550 ppm, the worst impacts of climate change could be avoided or delayed by up to 100 years providing valuable time for society and the environment to adapt.

Source: *Marine Pollution Bulletin* (1999), 38(12), 1059.

Unhealthy oceans

New diseases are endangering the health of the world's oceans according to a report in the journal *Science*. Dr. JoAnn Burkholder's report examines the recent rise of mass mortalities in ocean-dwelling plants and animals owing to disease. Host shifts of known pathogens rather than the emergence of new organisms are thought to be the main cause of new outbreaks. Physiological stresses caused by high El Niño temperatures and pollution resulting from increased aquaculture, farming and development are apparently compromising the immune systems of organisms, increasing the risk of opportunistic infection. According to Burkholder, despite decades of study, little is known about the impact of diseases on evolution and ecology in the oceans. (See also *Biodiversity and human health affected by emerging diseases*.)

Source: *Marine Pollution Bulletin* (1999), 38(11), 951.

Europe

New action plans for corncrake and lesser kestrel

BirdLife is producing species action plans for the globally threatened corncrake *Crex crex* and the lesser kestrel *Falco naumanni*, on behalf of the Convention on Migratory Species (the 'Bonn Convention'). The new action plans are based on those produced by BirdLife in 1996, but will contain updated population estimates for many range states as well as details of conservation work for the two species, mostly carried out by the BirdLife Partnership. The global nature of the Bonn Convention ensures that the action plans reach governments across the majority of species' ranges. This is particularly valuable for these two relatively widespread species.

Source: *BirdLife in Europe* (1999), 4(4), 2.

Illegal oil licensing

The UK Government was defeated in court on 5 November 1999 in a ruling that protects coral reefs, whales and dolphins in Britain's North East Atlantic. The court accepted that whales and dolphins can be harmed by the oil industry and that the Government had not applied the Habitats Directive in initiating the next round of oil licensing in the North East Atlantic. The UK Government had decided to limit the application of the EU Directive to only 12 miles from the coast rather than the 200 miles in which it licenses for oil. As a result of the defeat, the UK Government will have to: initiate strict protection of all whales and dolphins; undertake surveys between 12 and 200 miles offshore to identify habitats and species in need of protection and propose candidate Special Areas of Conservation (SACs), where needed; and develop plans to protect and restore species whose status has been negatively impacted.

Source: *Habitat* (1999), 35(10), 1.

Final volumes of Biodiversity Action Plans published

English Nature published the final six volumes of species and habitat action plans on behalf of the UK Biodiversity Group at the end of 1999. These plans, for a total of 391 species and 45 habitats, are central to the UK Biodiversity Action Plan, the origins of which stem from the UK's commitment to the Convention on Biological Diversity.

Source: *English Nature Magazine* (2000), 47, 9.

UK timber industry supports Woodland Assurance Scheme

The UK branch of the Forestry Stewardship Council (FSC) predicts that three-quarters of the forest area in the UK will be certified to the standards of the FSC within 18 months. This means that more than 1 million hectares of timber plantations will be managed in a more sustainable way, with more old trees and standing dead wood, wild corridors along stream banks and a wider variety of tree species. Furthermore, many plantations established on ancient forest sites will be restored to semi-natural native woodland status. The predicted increase follows the UK timber industry's support of the UK Woodland Assurance (UKWAS), which is now recognized formally by the FSC.

Source: *BBC Wildlife* (2000), January, 62.

Tenth anniversary is record year for English kite

The rare red kite had a record breeding season in England in 1999. The species has been re-established in England, using young from Spain, as part of a national project co-ordinated by English Nature and the Royal Society for the Protection of Birds to restore the species to its former homes throughout Britain. The first young kites were released in the Chilterns in southern England in 1989; last year, 81 pairs reared 153 young in the best breeding season to date.

Source: *Habitat* (1999), 35(9), 3.

Rare crow population in decline

Britain's rarest crow—the chough—is declining in most of its home range, and across most of Europe, according

to the Royal Society for the Protection of Birds (RSPB). In Britain, the chough is now limited to the cliffs and islands of west and north Wales, Northern Ireland and several Hebridean Islands. The cause of the birds' decline is thought to be linked to their specialist feeding habits. Choughs need short cropped grass with good numbers of soil and dung insects on which to feed. Year-round grazing, particularly by cattle, is needed to create these conditions. The RSPB believe that the only way such habitats will be maintained is if the government amends agriculture and environment schemes to reward farmers financially for helping to maintain the chough habitat.

Source: *Habitat* (1999), 35(9), 3.

Successful re-introduction of the large blue butterfly

The large blue butterfly, which became extinct in Britain 20 years ago, is thriving at a secret site on Dartmoor in south-west England, as a result of careful habitat management. Re-introduced to a small number of sites from Swedish stocks, the large blue bred 'exceptionally well' in the summer of 1999, with c. 80 adult butterflies emerging, double the figure for 1998. Breeding success is attributed to carefully controlled grazing by Dartmoor ponies and cattle, combined with a warm, wet spring.

Source: *Habitat* (1999), 35(9), 2.

High brown fritillary returns

After 3 years' autumn grazing by Exmoor ponies, the high brown fritillary—Britain's rarest butterfly—has returned to Eaves Wood, Silverdale, Lancashire. The National Trust has been clearing scrub from glades that have more or less disappeared from this steeply wooded hillside reserve. Three ponies grazed the rough grasses and trampled bracken of the glades, which encouraged violets to grow in the woods and helped to restore the habitat of the rare butterfly.

Source: *Habitat* (1999), 35(9), 3–4.

Grazing benefits Scottish primrose

Following a 10-year grazing initiative on the Hill of White Hamars, a Scottish Wildlife Trust (SWT) reserve in Orkney, the unique Scottish

primrose is thriving once more. This species is found only in the far north of Scotland and in the islands of Orkney. Since the project began, the population of the primrose has increased from 659 plants to 3980. A partnership between the SWT, Scottish Natural Heritage and local naturalists established a regime to investigate whether a targeted pattern of grazing management could benefit wildlife at the same time as supporting a commercial flock of sheep.

Source: *Habitat* (1999), 35(9), 3.

New National Nature Reserve in Wales

An area at the heart of the Welsh Denbigh Moors has been declared a National Nature Reserve (NNR). The Hafod Elwy NNR could become a safe haven for the nationally threatened black grouse *Lyrurus tetrix*. The Countryside Council for Wales will work with Forest Enterprise to maintain the moor habitats so that the black grouse and red grouse can strengthen their foothold there.

Source: *Habitat* (1999), 35(9), 3.

Extra protection for inter-tidal area

An extension of 1049 ha to the existing inter-tidal protected site in Morcambe Bay, north-west England, will give added protection to more than 180,000 waterfowl—including more than 20 per cent of the British population of oystercatcher—which use valuable winter nesting and breeding sites there each year. The extended Special Protection Area and Ramsar site will be the largest continuous protected inter-tidal area in Britain.

Source: *Habitat* (1999), 35(9), 3.

Return of wolves to the French Pyrenees

DNA analyses carried out on hair samples in August 1999 confirmed the presence of wolves *Canis lupus* in the eastern French Pyrenees. Since 1996, sheep herds located near the Nohèdes Nature Reserve have been subject to an unusually high level of predation, attributed initially to feral dogs.

However, a wolf sighting was reported in 1998 and the recent DNA analyses confirmed its presence. The analysis showed that the Pyrenean wolves have a genetic code similar to that of the Italian wolf population.

Wolves disappeared from the eastern Pyrenees in the 1880s and were eliminated completely from the Pyrenees in the 1920s.

Source: *Lettre des Réserves Naturelles* (1999), 52 (sent by david.brugiere@univ-rennes1.fr).

New marine reserve in Mediterranean

On 24 September 1999, a new marine reserve was created in the French Mediterranean Sea. Located between the islands of Corsica and Sardinia, the Reserve Naturelles des Bouches de Bonifacio covers 79,203 ha with 257 ha of islands, making it the largest Mediterranean marine reserve. The area is zoned to include 1200 ha of integral reserve and 12,000 ha of reinforced protection. This reserve is planned for inclusion in the future Bouches de Bonifacio International Marine Park together with the Italian Maddalena Archipelago National Park.

Source: *Lettre des Réserves Naturelles* (1999), 52 (sent by david.brugiere@univ-rennes1.fr).

Important wetland protected in France

In July 1999, the creation of a second nature reserve of 2600 ha in the Baie de l'Aiguillon along the French Atlantic coast gave total protection to this coastal wetland. Since 1973, the area has been classified as a marine hunting reserve, but the creation of the two nature reserves (which cover a total of 4900 ha) strengthens its protection. The Baie de l'Aiguillon is a wetland of international importance for several species of ducks and waders including the shelduck *Tadorna tadorna*, the black-tailed godwit *Limosa limosa* and the whimbrel *Numenius phaeopus*. The site also harbours a population of otter *Lutra lutra*. The Baie de l'Aiguillon is designated as a Special Protection Area under the Bird Directive of the European Union.

Source: *Lettre des Réserves Naturelles* (1999), 52 (sent by david.brugiere@univ-rennes1.fr).

Important Spanish plant area threatened by ski development

Javalambre, one of the five Centres of Plant Diversity identified by IUCN and World Fund for Nature (WWF) in Spain, has been developed as a ski

station, destroying thousands of plants. Javalambre is a mountain range covering about 50,000 ha, crowned by one of the highest peaks in eastern Spain—Javalambre peak (2020 m). The upper level of the range is dominated by a high plateau comprising hundreds of hectares of 'horizontal woodland' dominated by prostrate flat thickets of savin *Juniperus sabina*, enclosing the populations of several high-mountain endemics.

Aragon's Wildlife Service has tried to repair some of the worst effects of the damage to the landscape by planting young yews, junipers, pines, savines and high-mountain shrubs; recovery will, however, be slow, taking decades or even centuries.

Source: *Plant Talk* (2000), 20, 18.

Sub-Saharan Africa

Africa's apes and monkeys living on borrowed time

An analysis of the ecological relationship between species diversity and the available habitat area predicts that even if deforestation stopped today, a third of Africa's forest-dwelling primates would be doomed to extinction. Currently, the relationship between the number of species and the area of available forest is weak, but 50 years ago it was strong. Guy Cowlshaw, of the Zoological Society of London, argues it is only a matter of time before the number of species falls to restore the relationship with forest area. He further argues that habitat fragmentation leaves primates vulnerable to climatic disruptions, loss of genetic diversity and breakdown of social structure. Cowlshaw urges swift action to preserve existing forests and establish corridors between small forest fragments to avoid isolating small populations.

Source: *Conservation Biology* (1999), 13(5), 1183.

Reports of elephant poaching in Chad

In the course of monitoring the illegal killing of elephants, the CITES Secretariat has received confirmed and unconfirmed reports of frequent elephant poaching in Chad. Confirmed

reports indicated the use of automatic rifles, machine guns and spears, and a number of Chadian game wardens have been killed in action while carrying out their anti-poaching duties. Tusks were removed from the elephants killed in each confirmed case, and the removal of meat and other body parts was also common. Poachers are thought to be soldiers, local farmers and nomads.

The Secretariat is calling for more action by the authorities in Chad and neighbouring countries, and for increased vigilance for smuggling of ivory and other elephant products. (See also *Poaching in Kahuzi-Biega National Park*.)

Source: *TRAFFIC North America* (1999), 2(2), 1–2.

Proposal to upgrade roads rejected

In July 1999, the Committee of the European Development Fund rejected a European Commission proposal for a 52 million Euro (\$US50 million) grant to upgrade roads in Cameroon, owing to concerns that the project could accelerate logging. This is the first time that the Committee, which oversees annual grants worth 2 billion Euro, has rejected a project on environmental grounds.

Source: *IUCN Arborvitae* (1999), 12, 3.

Log exports halted

The 5-yearly authorization of log exports of over-exploited hardwoods from Cameroon, such as iroko, moabi, bibolo and bubinga, expired on 30 June 1999 and will apparently not be renewed. Exports of ayous and sapelli, however, will continue. Cameroon exports more than 1 million cubic metres of ayous and 750,000 cubic metres of sapelli every year.

Source: *IUCN Arborvitae* (1999), 12, 3.

Cross River gorillas—a separate subspecies?

In 1904, Paul Matschie described a new species of gorilla inhabiting the Cross River watershed in what was then German Cameroon, bordering the British-governed Nigeria. Since then, there has been much debate over the taxonomic status of this population. Surveys in the last decade have established that no more than 200 Cross River gorillas exist in four isolated populations. This population

is at least 250 km north-west of the nearest western gorilla population and it is proposed that they be recognized as a new subspecies *Gorilla gorilla diehli*.

Source: *Gorilla Journal* (1999), 19, 14–16.

White-winged flufftail nest found

A nest and eggs belonging to a pair of endangered white-winged flufftail *Sarothrura ayresii* has been discovered in the central Ethiopian Highlands by EWNHS (BirdLife in Ethiopia). The nest, the first ever discovered, was found at one of the two known breeding sites in Ethiopia in dense vegetation in a flooded meadow, and is woven of growing grass blades and small sedges with a short side entrance. Three pure white eggs were found, increasing to five on a return visit 6 days later. EWNHS are lobbying the Ethiopian Government and non-governmental organizations (NGOs) for the preservation of sites. The known global population of white-winged flufftail is just 750 birds, mostly in Ethiopia—the only other known breeding site is in South Africa.

Source: *World Birdwatch* (1999), 21(4), 3.

Gorilla tourism re-opened in Uganda

The gorilla parks in Uganda re-opened in April 1999. They were closed following the slaughter of tourists in Bwindi. The number of visitors in Bwindi rose from 85 in April to 193 in September. The Community Campground that was destroyed by rebels in the attack is being rebuilt and was scheduled to re-open in December 1999.

Source: *Gorilla Journal* (1999), 19, 10.

Poaching in Kahuzi-Biega National Park

Between April and July 1999, poaching in the Kahuzi-Biega National Park in the Democratic Republic of Congo increased considerably. Armed poachers were targeting large mammals, in particular elephants and gorillas. Poaching with wire snares was also still common. Within a few months, hunters killed 17 elephants and, since April 1999, 20 gorillas have been shot. Poaching in the old part of the Kahuzi-Biega National Park has increased, especially of elephants for the ivory trade in the Great Lakes

region. (See also *Reports of elephant poaching in Chad; Gorillas threatened with extinction.*)

Source: *Gorilla Journal* (1999), 19, 3–4.

Gorillas threatened with extinction

None of the four habituated groups of gorillas in the Kahuzi-Biega National Park in the Democratic Republic of Congo continue to exist. It is suspected that more than half the 240 animals in the original 600-sq-km sector of the park have been killed recently. The eastern lowland gorillas are now threatened with extinction. There is an urgent need for a population census, despite the fact that the political situation is still difficult. (See also *Poaching in Kahuzi-Biega National Park.*)

Source: *Gorilla Journal* (1999), 19, 4–6.

TRAFFIC study of woodcarving trade in Malawi

Malawi's forest resources are threatened by uncontrolled exploitation. The woodcarving trade is of particular concern and in late 1998 TRAFFIC East/Southern Africa initiated a project to examine this trade. This was partly supported through a grant from FFI's 100% Fund. The study revealed that 14 tree species are used for carving. The three most popular are *Combretum imberbe*, *Dalbergia melanoxylon* and *Pericopsis angolensis* and declines are already evident in these species. Often the wood used is harvested illegally. Moreover, importation from other countries, notably Mozambique, is frequently unregulated.

Source: *TRAFFIC Dispatches* (1999), 12, 4–5.

Black rhino success in Malawi

Following the re-introduction of a pair of black rhinoceros *Diceros bicornis* into Liwonde National Park in October 1993 [*Oryx*, 32(1), 21], a male calf was born in March/April 1997. A further calf, not yet sexed, was born in August 1999. After doubling the size of the rhino sanctuary and subdividing it, another pair of black rhinos were re-introduced from the Kruger National Park in November 1998. As the rhinos should have established their territories by now,

the subdivisions in the sanctuary are likely to be removed in due course.

Moreover, there is a planned re-introduction of a further pair of black rhinos into the main park.

(See also *Mammal re-introduction into Liwonde National Park.*)

Source: *Wildlife Society of Malawi*, October 1999. (Sent by Paul Taylor, Blantyre Branch Chairman of The Wildlife Society of Malawi.)

Mammal re-introduction into Liwonde National Park

In August 1999, a South African National Parks capture team translocated 91 buffalo *Syncerus caffer*, 27 roan *Hippotragus equinus*, 26 hartebeeste *Alceaphus lichtensteini*, 17 zebra *Equus burchelli* and 25 eland *Taurotagus oryx* from Kasunu National Park, where poaching levels are high, into Liwonde National Park. The park now contains all the species—except for the Nyasa brindled gnu and wild dog—which were formerly known to be present there. (See also *Black rhino success in Malawi.*)

Source: *Wildlife Society of Malawi*, October 1999. (Sent by Paul Taylor, Blantyre Branch Chairman of The Wildlife Society of Malawi.)

Elephant herd population recovery in southern Africa

Elephant herds in southern Africa have increased since CITES enacted a ban on the sale of ivory in 1989. Wildlife managers are beginning to complain that elephant numbers have increased in some areas to the point that they are destroying vegetation for other species. At Kruger National Park in the Republic of South Africa, biologists are now testing the efficacy of a contraceptive vaccine in a group of elephant cows; a 1999 survey found that Kruger National Park holds 9000 elephants, 2000 more than its sustainable carrying capacity. Furthermore, in November 1999, the South African Department of Environmental Affairs and Tourism announced that it would petition CITES to downgrade its listing of African elephants in South Africa from Appendix I, which prohibits trade, to Appendix II, which allows controlled trade.

Source: *Scientific American* (2000), 282(1), 26–27.

Biological control of prickly pear in Kruger National Park

Sour prickly pear *Opuntia stricta* has rapidly invaded 19,000 ha of the Skukuza region of Kruger National Park in South Africa. These plants are of little nutritional value to most species and can form dense thickets that smother indigenous herbs and grasses. Most standard methods of control have proved ineffective, but in 1997 biological control using a cochineal insect *Dactylopius opuntiae* was introduced. First releases of the insects began in May 1997 and by 1999 they had spread more than 300 m from the release site. Since the insects' release, prickly pear plants have been smothered in cochineal and are now in various stages of degeneration and collapse.

Source: *Veld and Flora* (1999), 85(3), 128–129.

South Africa's first biosphere reserve opened

The Kogelberg Biosphere Reserve near Betty's Bay was officially opened in April 1999 to protect an area of fynbos habitat. Moreover, a donation of funds has helped purchase the nearby 94 ha *Koppie Alleen* property for inclusion in the reserve. Kogelberg is South Africa's first biosphere reserve and forms part of the global network of more than 330 such reserves.

Source: *Our Living World* (1999), October, 6.

Namaqua National Park opens

Namaqua National Park (NNP), one of the largest protected areas in South Africa, was officially opened in August 1999. The opening marks the end of an 11-year campaign by World Fund for Nature (WWF) South Africa, which began in 1988 with the purchase of 930 ha of land to create the Skilpad Wildflower Reserve, now massively enlarged to form the 49,000 ha NNP. Namaqualand is a significant centre of biodiversity with around 4000 species, of which some 60 per cent are unique to the area. Several buck species and baboons are among the animals currently inhabiting the park, and plans to introduce more, including black rhinoceros and gemsbok, are being

investigated by South African National Parks.

Source: *Our Living World* (1999/2000), December/January, 4.

Lowland fynbos identified as conservation priority

WWF-South Africa's Cape Action Plan for the Environment (CAPE) will concentrate on the conservation of the lowland fynbos of the Cape Floral Kingdom. This decision is based on research, which shows that the lowland fynbos is the most severely threatened type of fynbos vegetation. Several leading scientists have been involved in an intensive consultative process to identify priorities in the conservation of the Cape Floral Kingdom. This process will culminate in the development of the CAPE project's strategic plan to conserve the Cape Floral Kingdom ecoregion.

Source: *Our Living World* (1999/2000), December/January, 6.

Seychelles scops-owl nest found

The first ever recorded nest of the Seychelles scops-owl has been found by BirdLife Seychelles, a major success for the research project into the species, supported by the Global Environmental Fund (GEF). The population of the Seychelles scops-owl, once thought to be extinct, is currently believed to consist of 80–90 pairs.

Source: *World Birdwatch* (1999), 21(4), 3.

Seine fishing to be phased out

The Mauritian Government is to phase out fishing with seine nets by the year 2006. According to the Mauritian Fishing and Co-operatives Ministry, seine fishing is particularly harmful to the marine environment in the area because the nets are set low to maximize the catch, damaging corals and other bottom-dwelling organisms. The fishermen are being offered \$1000 from the Mauritian Government to give up their licences; the Association of Professional Fishermen in Mauritius does not consider this to be sufficient compensation.

Source: *Marine Pollution Bulletin* (1999), 38(10), 850.

South and South-east Asia

Management of the live reef fish trade in South-east Asia

South-east Asia's reef fish stocks face drastic overexploitation unless fisheries are managed in a sustainable way. A TRAFFIC study, *Fishing for Solutions: Can the Live Trade in Wild Groupers and Wrasses from Southeast Asia be Managed?*, reports the trends, patterns and diversity of the live fish trade in the region, focusing in particular on Indonesia, the Philippines, Malaysia and Singapore, the four main countries involved in the industry. *Fishing for Solutions* concludes that the fishery for live food reef fish needs to be managed to make it sustainable. Stock depletion, habitat destruction and fishers' income all need to be taken into account when management decisions are being made.

Source: *TRAFFIC Dispatches* (1999), 12, 1–3.

Sarawak bans hunting by loggers

The Malaysian state of Sarawak confronted the problem of wildlife hunting by loggers by announcing, in April 1999, that all logging company staff are prohibited from hunting and that all non-essential roads must be closed after an area has been logged. Tracts licensed for timber extraction cover over half the land area of Sarawak. As long as timber extraction is carried out according to regulations and there is no large-scale hunting, the orangutan, the rhinoceros hornbill and other species will be able to survive in logged areas.

Source: *Wildlife Conservation* (1999), October, 9.

Belum Forest Reserve to become National Park

The Perak State Government has announced that Belum will be gazetted as a state park by the Perak State Assembly in December 1999. The Belum Forests (including the Temenggor and Grik Forest Reserves) contain a rich and diverse range of fauna and flora, including the rare *Rafflesia* flower, which has the largest bloom in the world. Many large mammals have been sighted, for example seladang, elephants, tigers and tapirs. In addition, there is

evidence of the endangered Sumatran rhinoceros.

Source: *Malaysian Naturalist* (1999), 53(2), 6.

Reef balls help to protect turtle habitat

Placing reef balls in the waters around the turtle islands of Talang-Talang off Sematan has proved effective in deterring trawlers from going near the islands. The rough surfaces of the cement reef balls are capable of ripping trawler nets. When placed in small clusters, reef balls will act as barriers on which trawler nets will become entangled. Sarawak is the first place in Asia to use reef balls to prevent trawlers from encroaching on turtle resting areas. Reef balls resemble natural reef and contain no toxins or compounds that could leach into the water to pollute it.

Source: *Marine Turtle Newsletter* (1999), 86, 22.

Turtle Islands for endangered green turtles

A call for the protection of all six Turtle Islands, located in Tawi in the Philippines, has been made by the Environment and Natural Resources Secretary. So far, only the island of Baguan is a marine turtle sanctuary. The Turtle Islands and the nearby Malaysian islands are the only remaining nesting sites of the green turtle in the region, one of only 16 areas in the world. Protection would include a ban on illegal fishing techniques—a major cause of turtle mortality in the area—and could lead to increased ecotourism and improve the economy of the islands.

Source: *Marine Pollution Bulletin* (1999), 38(12), 1062.

Rare sarus crane populations found

Recently discovered populations of the sarus crane *Grus antigone sharpii* in Vietnam and Cambodia represent a significant proportion of the world population of this bird. One hundred and thirty sarus cranes were found in Kien Giang province, Vietnam by a team from BirdLife Vietnam, only the second-known dry season location for the crane. BirdLife is working with the provincial authorities to include the area in the Vietnam protected area system. A second population of some

200 birds has been found in Cambodia in an area that is set to become a 100,000-ha nature reserve. The total world populations of the sarus crane is thought to be around 1000–1500 birds. *Source: World Birdwatch* (1999), 21(4), 4.

East Asia

Illegal shawl trade targeted in campaign to save rare Tibetan antelope

Efforts to control the illegal trade in luxury shawls made from chiru, a rare Tibetan antelope, will be stepped up in April at the CITES conference in Nairobi. The Chinese Government estimates that up to 20,000 chirus are killed every year to supply a growing demand among wealthy Europeans and Americans for ultra-fine shahtoosh shawls woven from their hair. According to WWF, the species faces a perilous future if the slaughter continues unchecked.

Source: BBC Wildlife (1999), December, 57.

Horseshoe crabs on Hong Kong's beaches

There are only four species of horseshoe crabs world-wide; three of which occur in Asia, including two species that breed and nest on the beaches of Hong Kong. The Hong Kong species, *Tachypleus tridentatus* and *Carcinoscorpius rotundicauda*, used to come ashore in large numbers every summer, but no longer do so. Horseshoe crabs are considered a delicacy in China and Hong Kong and they have suffered from the familiar problems of overfishing, pollution of breeding beaches and reclamation of coastal environments. A recent survey identified Pai Nak, in the north-western quadrant of Hong Kong, as an important area for horseshoe crabs, but the area is scheduled for development. It is clear that there is an immediate need to ban fishing of horseshoe crabs and then to establish protected areas for breeding individuals.

Source: Marine Pollution Bulletin (1999), 38(10), 845–846.

North America

New national park in Canada

In August 1999, an agreement between the Governments of Canada and Nunavut was signed to create a new national park on northern Baffin Island. The park, called Sirmilik, covers more than 22,500 sq km, making it the third largest in the Canadian national park system.

Source: Nature Matters (1999), Autumn, 1.

Historic land preservation initiative announced

On 13 October 1999, President Bill Clinton unveiled one of the largest land preservation initiatives in US history. Under the proposal, two-thirds of the US's remaining wild forests would be preserved by banning the construction of logging roads in undeveloped federal areas. The areas identified for protection cover over 192 million acres of federal forests from the Southern Appalachians to the Chugach National Forest in Alaska. This is the single largest public lands protection initiative in the last 100 years.

Source: Plant Talk (2000), 20, 16.

Timber sales blocked

In August 1999, a federal judge in Seattle blocked nine timber sales in the North-west's old-growth forests and threatened to halt many others, ruling that the government had not conducted surveys of the 77 endangered animal and plant species found in the region. The northern spotted owl, arguably the best known of these species, is thought to be declining at a rate of up to 8.3 per cent per year; population figures, however, have not yet been established.

Source: Audubon (1999), 101(6), 26.

Warbler population on the rebound

During a June 1999 census of the endangered Kirtland's warbler in Michigan's Lower Peninsula, Department of Natural Resources biologists recorded 902 singing males—the highest number recorded since 1951. The Kirtland's warbler is a ground nester that requires young jack pine forests, but in recent decades effective forest-fire management techniques have suppressed

regeneration of these stands. In the 1970s, the federal government, the state government and local volunteers began burning and reseeded 2000 acres to mimic the effects of forest fires. The strategy seems to be working: more than 70 per cent of the males counted were found in these managed jack pine forests.

Source: Audubon (1999), 101(6), 24.

Progress of TRAFFIC native North American medicinal plant research

TRAFFIC North America, in conjunction with The Nature Conservancy, has completed the first two phases of a four-part study of native North American medicinal plants using plants collected from public lands and traded within the US. This has so far resulted in the identification of around 85 native species as candidates for further review of trade and conservation. In phases III and IV, the species' commercial and conservation status will be examined in detail and will include consultation with industry, field botanists and researchers for information on supply, demand and population trends.

Source: TRAFFIC North America (1999), 2(2), 3–4.

Return of the Karner blue butterfly

Since 1992, the US Fish & Wildlife Service, Toledo Zoological Gardens and The Nature Conservancy have worked in partnership with the Ohio Department of Natural Resources and the Michigan Department of Natural Resources to re-introduce the Karner blue butterfly *Lycaeides melissa samuelis* to the Oak Openings of Lucas County, Ohio. The butterfly was last seen in Ohio in 1988. Effort initially concentrated on the restoration of rare oak savanna vegetation, including wild lupine, in the Kitty Todd Preserve. Once the vegetation was re-established, larvae and pupae of Karner blues were released in the Preserve in June 1998. By May 1999, wild-bred Karner blues were once more flying in the Kitty Todd Preserve. It is hoped that with continued habitat management and additional releases planned over the next 5 years, the Karner blue butterfly will once more thrive in the Oak Openings.

Source: US Fish & Wildlife Service *Endangered Species Bulletin* (1999), XXIV(3), 14–15.

Island fox endangered

The island fox *Urocyon littoralis* inhabits the Californian Channel Islands. Ancestors of this miniature relative of the Californian gray fox crossed the Santa Barbara Channel more than 10,000 years ago and evolved into a distinct species, *U. littoralis*. Today, the island fox can be found on six of the eight Channel Islands, each of which has its own subspecies. In 1994, there were an estimated 450 foxes on San Miguel Island; only 20 remain. On Santa Rosa Island, 100 foxes survive out of 2000. Golden eagles are thought to be the cause of this dramatic decline; the birds are flying over from the mainland to prey on the foxes and several golden eagles are now reported to be wintering on the islands. The Channel Islands National Park is ready to petition the US Fish & Wildlife Service to include the island fox on the federal Endangered Species List; the state of California has listed the fox as endangered since the 1980s. Source: *Wildlife Conservation* (1999), December, 16.

New Condor Ridge exhibit to help California condors

The San Diego Wild Animal Park is to open a new Condor Ridge exhibit this spring. This is another development in the ongoing efforts to save the California condor *Gymnogyps californianus* from extinction. The last wild condor was taken into captivity in April 1987. The California Condor Recovery Program's efforts led to the first re-introduction of two birds in 1992. The Condor Ridge will be located adjacent to the Conifer Forest at the Wild Animal Park and will be accessible only on foot. The exhibit will also show other endangered species such as the thick-billed parrots *Rhynchopsitta pachyrhyncha*, northern aplomado falcons *Falco femoralis septentrionalis* and black-footed ferrets *Mustela nigripes*. Source: *Zoonooz* (2000), 73(2), 8–13.

Black bear law update

As of June 1999, the sale or purchase

of organs and paws of black bear *Ursus americanus* is prohibited in West Virginia. In addition, new wildlife regulations concerning wild bears became effective in Delaware on 15 August 1999. The sale or possession of bear gallbladders and other viscera is now illegal, and the possession of any part of a bear must be in compliance with CITES.

Source: *TRAFFIC North America* (1999), 2(2), 9.

State impedes Everglades plan

The Everglades Restoration Plan is to be authorized by Congress later this year, which requires the restoration of natural water flows into the Everglades National Park and Florida Bay. However, the plan is being jeopardized by the decision of the South Florida Water Management District not to purchase the 8.5 Square Mile Area—a region to the east of the Everglades National Park that is important to the restoration of the natural water flow through the park and into Florida Bay. The National Park Service and Miami-Dade County, Florida have bought much of the undeveloped property east of the park and surrounding the 8.5 Square Mile Area, and the addition of this latter area would complete the flow of water through the main north–south route. Historically, sheets of water from Lake Okeechobee flooded the 1.5 million acre park before emptying into Florida Bay. This flow is particularly important to marine ecosystems and coral reefs.

Source: *National Parks* (1999), 74(11–12), 15–16.

Ten Hawaiian plants to be protected

On 3 September 1999, the US Fish and Wildlife Service listed 10 Hawaiian plants that exist only in the Maui Nui group of islands as endangered under the US Endangered Species Act. The 10 newly listed plants are *Clermontia samuelii*, *Cyanea copelandii* ssp. *haleakalaensis*, *C. glabra*, *C. hamatiflora* ssp. *hamatiflora*, *Dubatia plantaginea* ssp. *humilis*, *Hedyotis schechtendahlana* ssp. *remyi*, *Kanaloa kahoolawensis*, *Laboria tinifolia* var. *lanaiensis*, *L. triflora* and *Melicope munroi*. All are threatened by feral animals, including goats, pigs and deer, competition by invasive

vegetation and chance events such as hurricanes and fires.

Source: *Plant Talk* (2000), 20, 20.

Light pollution and non-native predators threaten dark-rumped petrels

Dark-rumped petrels are suffering through increased development and light pollution in their habitat on the island of Maui in Hawaii. This endangered species is thought to navigate across the ocean by stars. However, lights that illuminate new developments such as hotels attract the birds to the land. The birds fly into unseen buildings and although many survive the fall, they become easy prey to non-native predators on the ground. Petrels were historically found all over the Hawaiian Islands, but are now only found above 8000 ft. Source: *National Parks* (1999), 74(11–12), 40.

Californian abalone rescue plan

In an attempt to rescue the white abalone and restore numbers, an informal group of scientists has come together to discuss plans to locate and bring back individuals for safekeeping and captive breeding. Stocks of white abalone, a deep-water species found on rocky reefs off the coast of California and Baja California, Mexico, have crashed. Long prized for their tender white meat, numbers have declined from up to 5000 per acre to less than one per acre as a result of intensive fishing in the 1970s. In May 1999, environmentalists petitioned the National Marine Fisheries Service to list white abalone as endangered. Listing would make them the first endangered marine invertebrate to be recognized by the Service. Source: *Marine Pollution Bulletin* (1999), 38(12), 1062.

South America

Forest fires in South America

Thousands of forest and bush fires have been reported in western Brazil, Peru, Bolivia and Paraguay, caused primarily by farmers clearing fields in preparation for planting. Brazil's National Space Research Institute reported 1770 wildfires over the states

of Mato Grosso and Mato Grosso do Sul in September 1999, where more than 50,000 ha of the Ilha Grande National Park were on fire. In addition, areas of pristine Atlantic forest were involved in a fire that affected 70 ha of the Serra dos Orgaos National Park. In Peru, a serious fire in Manu National Park in the heart of the Peruvian Amazon forest affected the homeland of the Manu people.
 Source: *IUCN Arborvitae* (1999), 12, 2.

Spix's macaw recovery project makes progress

The Spix's macaw *Cyanopsitta spixii* population has been reduced to only one male bird in the wild, with around 30 individuals in captivity. The lone male has been paired with a female blue-winged macaw *Ara maracana*; in 1999, the hybrid pair successfully raised replacement blue-winged macaw chicks. In the fourth attempt in 3 years, the replacement of clutches of the hybrid pair with those from nests of wild blue-winged macaws has proved successful.

The experiment provides evidence that the hybrid pair is capable of fostering young. The next development in establishing a wild population of Spix's macaw will be to provide the hybrid pair with captive-bred Spix's macaw chicks for fostering.

Source: *World Birdwatch* (1999), 21(4), 7.

New species of titi monkey in Brazil

A new species of titi monkey, *Callicebus coimbrai*, has been described from the Atlantic forest in the state of Sergipe in north-eastern Brazil. The limits of its distribution are largely unknown, although it is thought to be restricted to the humid coastal Atlantic forest. The species was listed as Critically Endangered even before its formal description and there is an urgent need for surveys to establish the limits of its range. On the basis of a recent revision of the classification of titi monkeys, it is estimated that the Atlantic forest has 21 species of primates, 16 (76 per cent) of which are endemic and 16 of which are considered threatened by IUCN.

Source: *Neotropical Primates* (1999), 7(3), 88–89.

Alliance to save the Atlantic Forest

In July 1999, Conservation International and the Fundao SOS Mata Atlantica, Brazil's largest environmental non-governmental organization (NGO), formed an alliance that is pledged to achieve 'Zero Deforestation' and 'Zero Species Loss' in the Atlantic forest. The Atlantic forest is one of the world's top five hotspots for biodiversity, but is also home to 60 per cent of Brazil's population. As a result, only 7 per cent of the original forest area remains intact. The two organizations are now working together on a 'Joint Initiative for the Atlantic Forest'.

Source: *Neotropical Primates* (1999), 7(3), 96.

New bird species formally described

In 1998, the discovery in Ecuador of a new, large species of antipitta was announced for the first time. The species has now been formally described to science in the journal *Auk*, where it has been named the Jocotoco Antipitta *Grallaria ridgelyi*. The species is found in forest, on the edge of the Podocarpus National Park in the south of Ecuador. BirdLife in Ecuador and the Jocotoco Foundation are already working to ensure protection of the bird's remaining habitat.

Source: *World Birdwatch* (1999), 21(4), 5.

Effects of ecotourism on red howler monkeys in Ecuador

Ecotourism is a rapidly expanding activity and a recent study in Cuyabeno Reserve in the Ecuadorian Amazon assessed the effects of tourist activity on the howling behaviour of red howler monkeys *Alouatta seniculus*. Howler monkeys are well known for their vocal behaviour; in this study, a census was conducted of dawn choruses in areas affected by differing levels of tourism. The results suggested negative effects of human activities on howling behaviour and challenged the assumption that primates habituate to human presence. It concluded that more studies are needed on the effects of ecotourism on neotropical primates.

Source: *Neotropical Primates* (1999), 7(3), 84–86.

Major new protected area commitment in Peru

More than 6 million ha will be added to Peru's protected areas system in co-operation with local indigenous communities. Government authorities, the World Bank and WWF-Peru staff collaboration led to the development of the new project, which gives indigenous communities the power to achieve biodiversity conservation through the protection of lands under their co-management. The Global Environmental Fund (GEF) has approved a preparation grant. The new project will be complemented by a commitment from the government of Peru to establish an ecologically representative system of protected areas, as outlined in the Master Plan of Protected Areas of Peru.

Source: *IUCN Arborvitae* (1999), 12, 10.

Andean Cat Conservation Committee formed

In November 1999, the Andean Cat Conservation Committee was established. The decision was taken by a group of specialists in wildlife research, conservation and management who had participated in the First International Workshop on the Andean cat. The Andean mountain cat *Oreailurus jacobita* is almost completely unknown. It lives only in the high altitude Andean regions of Argentina, Bolivia, Chile and Peru, and has been recognized as a conservation priority in the IUCN Cat Specialist Group Action Plan.

Source: supplied by Mauro Lucherini, GECM, Ct. Fisiología Animal, Dpto. Biología, Bioquímica y Farmacia, Universidad Nacional del Sur, Argentina. E-mail: luengos@criba.edu.ar

Bolivian rain forest saved

Through the quick action of Conservation International (CI), a parcel of valuable Andean rain forest adjacent to the Madini National Park in Bolivia has been spared from logging. CI negotiated the protection of a 111,200-acre privately owned logging concession and persuaded the Bolivian Government to protect permanently the adjacent 588,802 acres of land within the Madini National

Park. The newly protected area forms a conservation corridor that links national parks previously divided by the concession and multiple-use zone.

Source: *Plant Life* (2000), 20, 13.

New rodent species discovered

A new species of rodent has been discovered by scientists in montane forest-grassland in central Tucumán Province, Argentina. Only 7 cm long, it is the smallest member of the genus *Akodon*, a group of ground-feeding rodents that eat soil invertebrates, fruits and seeds. The new species, named *Akodon aliquantulus*, has a tawny face with a slender snout, white chin and dark ears with tawny tufts. It has soft dense fur, and the hairs on its back are tri-coloured slate grey at the base, buff-coloured along their length, and tipped with either brown or black.

Source: *Journal of Mammology* (1999), 80, 786–798.

Australia/Antarctica/New Zealand

More protection for Australian sea turtles

Protection for a sea turtle found only in Australian waters has been strengthened by its listing as vulnerable under the Endangered Species Protection Act 1999. The flatback turtle is found only on Australia's continental shelf and all its known breeding sites are located in Australia. The flatback turtle listing complements enhanced protection for another turtle species—the Pacific or Olive Ridley turtle. The status of the Olive Ridley turtle has been upgraded from vulnerable to endangered under the Act. According to the Federal Environment Minister, the decision to list these turtle species is part of the government's efforts to protect Australia's marine biodiversity.

Source: *Marine Pollution Bulletin* (1999), 38(10), 848.

New marine reserve in New Zealand

New Zealand's sixteenth marine reserve is to be established off the east coast of the North Island. The reserve, named Te Tapuwae o Rongokako, comprises an area of 3450 ha near

Whangaroa, north of Gisborne. The reserve contains a rich diversity of marine habitat, ranging from sandy beaches to inter-tidal reef platforms, inshore reefs, kelp forests and sediment flats.

Source: *Forest & Bird* (1999), 294, 5.

Threatened ancient sea creatures in Spirits Bay, New Zealand

In May 1996, a routine scallop assessment by the New Zealand Ministry of Fisheries in Spirits Bay at the northern-most tip of New Zealand revealed the presence of a range of unknown or rarely seen sponges, bryozoans, octopuses and other species. More than one-third of the sponges is endemic to a small area of Spirits Bay. Despite the National Institute of Water and Atmospheric Research (NIWA) recommending protection of the area, scallop dredging and trawling have continued. Scallop fishermen have voluntarily agreed to close of a 100-sq-km area off Spirits Bay, but trawling continues in this zone. NIWA believes that protection may now be too late.

Source: *Forest and Bird* (1999), 294, 4.

Hormone patch may offer hope for survival of endangered kakapos

New Zealand's kakapo population is in decline, with just 54 birds still in existence. To make matters worse, the 20 female survivors are failing to come into reproductive condition and many of the 34 males appear to be sterile. Since 1975, only three chicks have been born, at Auckland Zoo, one of which subsequently died. In an attempt to rescue the species, biologists at the University of Mississippi have developed a hormone-laced skin patch designed to increase the libido of the females or at least to improve their physical condition for breeding. It is hoped that the patch will improve the reproduction rates of kakapos, but time is not on their side: most of the females are middle-aged and no one knows why the majority of males are infertile.

Source: *Wildlife Conservation* (1999), December, 13.

Falkland Islands offshore wildlife mapped for the first time

Survey results have been used to map

the dispersion patterns of all seabird and marine mammal species in the waters of the Falkland Islands for the first time. Clear patterns in the seasonal distribution of rockhopper penguins *Eudyptes chrysocome*, Peale's dolphin *Lagenorhynchus australis* and the hourglass dolphin *L. cruciger* were identified. However, because the results are based on only 12 months' survey data, they need to be interpreted with caution. Future survey work will attempt to determine the extent to which these results are representative.

Source: White, R.W. *et al.* (1999) *The Warrah*, 16, 2–3.

New law to protect the Johnny rook

The new Conservation of Wildlife and Nature Ordinance 1999 came into effect on 1 November and will offer greater protection to the Johnny rook, a bird of prey. Shooting this bird can now result in a fine of £3000, even if it is causing damage to livestock or property. Rogue birds can be killed only if a government licence has been granted. Such licences are valid for 2 years, after which time the situation is reviewed. The Johnny rook is one of the rarest birds in the world.

Falklands Conservation welcomes this first step in protecting the bird and ensuring its survival in the Falklands, which are believed to hold up to 75 per cent of the world's Johnny rook population.

Source: *The Warrah* (1999), 16, 6.

Helicopters frighten penguins

Low-flying helicopters in the Antarctic are panicking baby penguins. Scientists at the Australian Antarctic Division (AAD) discovered this when they flew a twin-engine helicopter over a colony of emperor penguins at 1000 m—the height specified by AAD guidelines—and filmed the outcome on the ground.

Three-quarters of the chicks became nervous, flapping their flippers and scurrying towards one another. In response to the study, the AAD plans to raise the minimum flying altitude to 1500 m.

Source: *Polar Biology* (1999), 22, 366.

People

Professor Peter Crane FRS took up the post of Director of the Royal Botanic Gardens, Kew, in August 1999. A distinguished research scientist, he is committed to Kew's education mission in botany and conservation. Professor Crane has over 20 years' experience in botany and in 1998 he was elected a Fellow of the Royal Society. He has published five books and more than 100 research papers covering various plant families. Before moving to Kew, Professor Crane was Director of the Field Museum of

Natural History in Chicago.

David Arnold-Forster OBE, Chief Executive of the North York Moors National Park Authority, was appointed Chief Executive of English Nature in February. He succeeds Dr. Derek Langslow, who has retired from the post.

Brian M. Boom, Vice President for Botanical Science and Pfizer Curator of Botany at the New York Botanical Garden, has been elected to a 2-year term as president of the Association of Systematics Collections (ASC). The ASC unites some 80 museums,

botanical gardens, herbaria and other institutions that house and maintain natural history collections.

The *Briefly* section in this issue was compiled by Jacqui Morris, Camilla Erskine and Simon Mickleburgh. Contributions from authoritative published sources (including reputable Web sites) are always welcome. Please send them to Camilla Erskine, Fauna & Flora International, Great Eastern House, Tenison Road, Cambridge, CB1 2TT, UK or e-mail her at camillaffi@talk21.com