

## An anniversary year for FFPS and its journal

In December of this year the Fauna and Flora Preservation Society will celebrate its 90th anniversary. While we do not intend to spend time reflecting on past achievements, we felt that it would be fitting to mark this anniversary year by using historical pictures for the covers of *Oryx*. The tiger that appears on this issue is entering a poacher's trap; today, despite valiant attempts to conserve them, tigers are still in trouble. There is a report in the Briefly pages of this issue on the dramatic decline of tigers in Ranthambhore National Park in India where poachers have been killing them in order to sell their bones, which are in much demand for medicines in the Far East.

The pictures are being provided, as in the past, free of charge by Bruce Coleman, who has recently added an Archive Collection to his extensive Wildlife and Travel Photo library. We are very appreciative of his generosity. This is also an appropriate occasion to record our grateful thanks to Edward Wright, FFPS's Honorary Treasurer, and Keith Bowyer of Masterlith Ltd, who between them have provided colour covers for *Oryx* free of charge for the past 10 years. This has been a tremendous asset to the journal's appearance and to its budget.

The questionnaire included with the October issue has brought in a flood of responses. We had not expected so many returns and we are very grateful to all members who took the time and trouble not only to answer the questions but also to add comments. These will be analysed and reported on as soon as possible. The many comments received about *Oryx* will form a major part of the discussions at an Editorial Board meeting in late January.

In line with our objective of keeping the Society vital and forward-looking despite its years, we have welcomed a number of new members to the FFPS Council and to the Editorial Board. The breadth and experience they represent will help guide us towards our 100th anniversary.

*Editor*

## Loss of the Amboseli Ecosystem in Kenya

The FFPS has taken much interest in Amboseli over the past four decades. Recently I have been following events unfolding there with mounting concern and I believe it is now time to bring the plight of Amboseli to the attention of the Society.

Amboseli National Park itself covers less than 10 per cent of the whole ecosystem. The other 90 per cent covers Ilkisongo Maasai ranching areas into which many of the park's wildlife disperse at certain seasons.

Until the mid-1960s Amboseli was one of the most spectacular places in Africa for viewing wildlife. Lions, leopards, cheetahs, rhinos, elephants and many other plains animals abounded. Tourists came in ever-increasing numbers to see and photograph them.

Then, in 1974, an area within the ecosystem was designated a national park and the Maasai people living there were evicted. From 1974 onwards, the local Maasai people, incensed by their eviction without any form of compensation, and inflamed by a catalogue of promises made and broken by the wildlife authorities, began poisoning and spearing the wildlife with which, up to that time, they had lived in complete harmony. With growing resentment, they saw that it was the existence of the wildlife that was responsible not only for the loss of their land to the national park, but also for the loss of the only permanent water available to them and their stock. The wildlife had begun to threaten their whole existence. Worse still, the authorities who took their land by force were now making vast sums of money out of what the Maasai considered to be their wildlife. In 1990 Amboseli earned some \$40m for Kenya from visiting tourists. The local community received not one shilling's direct benefit from this income.

Since 1974 the diversity of species has declined to a dismal few. Amboseli is now no longer of interest to the ordinary wildlife-seeking tourist. There are no lions, no rhinos, no cheetah, no leopards and few hyaenas for the tourists to see. The zebra and wildebeest are already suffering from the effects of a lack of

predators to cull the sick ones and this will ultimately lead to a decimation of those species as well. The maintenance of the tourist roads is non-existent and the whole administration of the park, as far as the tourist is concerned, appears to have fallen apart. Because of this and the lack of interest there, the tour operators (who decide where the tourists shall or shall not visit) are, not surprisingly, dropping Amboseli from their itineraries and the numbers visiting are being drastically reduced.

While there are still plenty of elephants to see and it is undoubtedly one of the best places in Kenya for birds, it is sadly no longer of interest to the average tourist. Very shortly, because of the lack of tourist income, it will cease to be viable as an ecotourist sanctuary and there will be little incentive for the Kenya Wildlife Service to spend the necessary funds to secure it. Available evidence suggests that it might have already been written off.

The decline of Amboseli has little to do with the large number of tourists that used to visit it or with the increase in elephant population – excuses often used by the authorities, for which there is ample evidence to refute. The demise has been brought about, in my opinion, by inept management and a total disregard of and lack of communication with the local people. The loss of Amboseli as a world-renowned wildlife sanctuary could so easily have been avoided if the goodwill of the local people had been sought and nurtured as it was by those of us who were responsible for its early years. For it was the Maasai people themselves who looked after the wildlife until governments and wildlife authorities took over its management and, from the 1970s on, proceeded to mismanage it so badly.

Amboseli should stand as a monument of how not to run a wildlife sanctuary where local people have an interest. It should be a warning to other wildlife authorities worldwide not to underestimate the power of those communities (however ineffective that power may appear to be) to affect the long-term outcome of the sanctuary in their midst.

*David Lovatt Smith*  
*Former Warden, Amboseli National Reserve*

## Carbon dioxide offsets as potential funding for improved tropical forest management

A key constraint in attempts to achieve more sustainable management of timber production from tropical forests has been the shortage of suitable incentives. The threat of timber boycotts is resented by major producer countries, such as Malaysia and Indonesia, as being unfair and hypocritical, granted the long history of deforestation by western countries and their role as the world's largest polluters and consumers of natural resources. A more positive approach may be to treat reforestation or changes in harvesting practice that reduce incidental damage to forests as potential offsets for the carbon dioxide produced by fossil-fuel power plants. Two recent initiatives involving a Malaysian timber company, Innoprise Corporation, may demonstrate the potential.

The first project is the enrichment planting, with native dipterocarps, of logged-over forest in eastern Sabah. This is being funded by the Face (Forest Absorbing Carbon Dioxide Emissions) Foundation of the Netherlands, which was established in 1991 by the Dutch Electricity Generating Board with the aim of absorbing the equivalent of carbon dioxide emissions from one large power station over its 25-year life-span. The contract (with Innoprise Corporation) is the first of several planned world-wide. In the pilot phase 2000 ha will be planted over a 3-year period (1992–1994) as a demonstration unit for sustainable management of native forest at a cost of \$US1.3 million. The contract also includes a substantial research and training component to be undertaken at the nearby Danum Valley Field Centre, where The Royal Society has a long-term collaborative research programme with four Malaysian partner institutions. If the pilot project is successful, Face's intention is to rehabilitate 30,000 ha over 25 years at this site.

A second contract having similar aims was concluded in August 1992 with the New England Power Company (NEP). Mindful of possible carbon taxes in Massachusetts and with ambitious corporate targets to meet for

reducing pollution in the 1990s, NEP has agreed to fund a 1400-ha pilot programme of 'Reduced Impact Logging'. The idea is to save vegetation, and thus sequestered carbon, from incidental damage during logging: when destroyed vegetation rots it releases carbon dioxide into the atmosphere. The 3-year contract, worth \$US452,000, will cover all the additional cost of training and consultancy required for harvesting to the highest environmental standards, including pre-felling climber cutting, skid-trail planning, directional felling, minimal use of bulldozers, etc. Compliance with the contract will be monitored by an external environmental audit team.

The NEP contract is also funding a short study of the net carbon dioxide savings from reduced impact logging. Such quantification of the carbon savings by different schemes is vital to any expansion of the offset idea. Preliminary estimates suggest that there may be potential savings of around 100 tons of carbon (or 367 tons of carbon dioxide) per ha at a cost of less than \$US2 per ton of carbon dioxide. In detail, however, the quantification issue is complex and little researched to date. Carbon dioxide may not be the only greenhouse gas at issue. Most dead wood in the tropics decays partly through the activity of termites, which release methane – a greenhouse gas 25 times more powerful than carbon dioxide.

If the greenhouse gas offset concept works it could have wide implications. The scale of potential funding from the US alone offers enormous benign leverage towards reforming the methods of the tropical timber industry. More exotic ideas, like the expanded use of elephants or the development of airships for logging, might merit a second look, because they may no longer be ruled out by their higher capital and operating costs compared with bulldozers. Reduced damage to the environment could have an immediate economic value as well as intrinsic, long-term benefits.

The offset idea might even be extended to support the establishment of new protected areas, if a country or company could demonstrate that 'but for' offset funding a particular area would be logged or cleared. A promising

candidate in Sabah, for example, is the Maliau Basin, a spectacular mountain wilderness with outstanding botanical riches, which happens to overlay a large coal deposit. Rights to the area are currently being sought by a large international mining company, which would expect to pay royalties on its coal sales. Is it too far-fetched to suggest that a syndicate of power companies might offer alternative carbon dioxide offset payments to keep the coal in the ground and the forest intact?

Proposals of this kind may look suspiciously like conservation blackmail, but is this really so? As Malaysia's Prime Minister, Dr Mahathir Mohammad, argued with a BBC reporter at the Rio Summit: 'Rainforest is not a common inheritance unless you are willing to pay for it. You don't pay, you expect us to pay for it. No go!' The logic is hard to dispute but in recessionary times it tends to get lost in the politics of foreign aid. A big attraction of the offset idea is that it treats spending on conservation and forest management not as charity but as commercial environmental services. Carbon sequestration, of course, is only one service provided by tropical forests – and a relatively unspecialized one – but for the moment it may be more readily translated into monetary terms than, say, most biodiversity values. Before slapping blanket taxes on carbon dioxide emissions politicians might consider whether encouraging carbon dioxide offsets could help reduce not just one but two of the big environmental problems of our time.

*Clive Marsh, Principal Forest Officer (Conservation),  
Innoprise Corporation Sdn Bhd, Kota Kinabalu  
Sabah, Malaysia*

## **An Action Plan for the white-winged wood duck**

The white-winged wood duck *Cairina scutulata* is restricted to small streams, ponds and swamps in tropical moist or swamp forest in South East Asia. The Wildfowl & Wetlands Trust has recently completed a study of the status of the wood duck in the wild and the



White-winged wood duck – focus of a new Action Plan (Photograph Andy Green).

conservation actions that are needed to ensure its survival. The International Council for Bird Preservation, the Asian Wetland Bureau and 50 Asian contacts assisted in a major review of current and historical data, building up a picture of the species's decline, habitat requirements and biology. This was used to make a conservation plan for each range country.

In the last century, the wood duck was very widespread, occurring in north-east India (Assam, Arunachal Pradesh, Nagaland, Meghalaya, Manipur, Tripura), Bangladesh (Chittagong Hills), Burma, Laos, Vietnam, Thailand, Cambodia, Malaysia and Indonesia (Sumatra and Java). It was considered 'common' by early British ornithologists exploring densely forested lowland plains in India, Burma and peninsular Thailand (Hume and Marshall, 1880; Robinson and Kloss, 1910, 1911; Stanford and Ticehurst, 1939).

Since then there has been a drastic decline, caused mainly by the devastation of lowland forests. Forest is essential for roosting and breeding, although wood duck survive and breed in some areas of degraded or secondary forests. Hunting has also played a major role in the decline. For example, in one Bangladesh population in the 1970s, 74 per cent of ducklings were taken by hunters (Husain and Haque, 1982).

Wood duck are now thought to be extinct in Malaysia and Java, but small populations survive in remaining areas of forest in India, Bangladesh, Burma, Thailand, Vietnam and Sumatra. The current status in Laos and Cambodia is still unknown. The known world

population is only 200 individuals. This is likely to be an underestimate because few areas have been well surveyed and the ducks' shy, retiring habits make them difficult to locate. Future surveys may identify larger or new populations, but the total world population is probably fewer than 2500 and has probably declined by more than 95 per cent this century. The species is certainly Endangered and possibly Critical.

Many of the remaining wood duck populations will probably be eliminated within a few years by continuing habitat destruction and hunting, even some of the 10 populations situated in protected areas. Other populations may be too small and isolated to be viable in the long term. Hence, conservation action is urgently required to prevent extinction of the species. Most importantly, there is a need for a major improvement in habitat protection. New protected areas are required. In the existing protected areas, problems of illegal logging, poaching and disturbance must be controlled, and habitat management is needed. There is also a need for widespread surveys to clarify which of the 40 populations are largest and of highest priority, and to look for additional populations. There must be field research of the bird's ecology to improve understanding of habitat requirements and to establish what is limiting the populations to their low density. The limiting factors are likely to vary between locations and to include a shortage of suitable tree-holes for nesting, excessive hunting and a shortage of suitable feeding sites at the height of the dry season when most wetlands have dried up.

The Wildfowl & Wetlands Trust is already implementing some of the recommendations in the action plan. In a joint project with the Thai Royal Forest Department, it is undertaking systematic surveys of 12 key sites in Thailand. In Sumatra it is participating in surveys of key sites and, along with the IUCN Captive Breeding Specialist Group and Asian Wetlands Trust, is planning a Population and Habitat Viability Analysis workshop. The Wildfowl & Wetlands Trust also has a long established captive-breeding programme for the species, and has wood duck on display at four

of its eight centres. Other conservation organizations working in South East Asia are also urged to take an interest in the action plan and do what they can to help in its implementation.

*Dr Andy Green*  
Senior Research Officer (Threatened Species)  
The Wildfowl & Wetlands Trust  
Slimbridge, Gloucester GL2 7BT, UK.

For more information, see: Green, A.J. 1992. *The Status and Conservation of the White-winged Wood Duck* *Cairina scutulata*. IWRB Special Publication 17, 115 pp. Available from: The Research and Conservation Department, The Wildfowl & Wetlands Trust, Slimbridge, Glos. GL2 7BT, UK. Price £10.00 plus £3.50 postage and packing, payable to 'The Wildfowl & Wetlands Trust'.

### References

- Hume, A.A. and Marshall, C.H.T. 1880. *Game-birds of India, Burma and Ceylon*, Vol. 3., Calcutta.  
Husain, K.Z. and Haque, M.N. 1982. *The White-winged Wood Duck Project*. Report to the University Grants Commission, Dhaka. Unpublished.

Robinson, H.C. and Kloss, C.B. 1910. On birds from the northern portion of the Malay peninsula including the islands of Langkawi and Teratau. *Ibis*, 52, 659–675.

Robinson, H.C. and Kloss, C.B. 1911. On birds from the northern portion of the Malay peninsula including the islands of Langkawi and Teratau. *Ibis*, 53, 10–79.

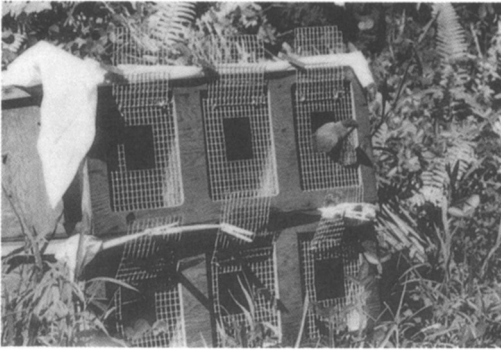
Stanford, J.K. and Ticehurst, C.B. 1939. On the birds of Northern Burma. Part VI. *Ibis*, 1939, 211–258.

## Lory translocated

The ultramarine lory *Vini ultramarina* is one of the least known and most threatened of all the insular lory species. Known only from the Marquesas archipelago, it is of special concern for the Marquesan islanders as well as the Office of Environment for French Polynesia. Its distribution included the islands of Nuka Hiva, Ua Pou, Hiva Oa and Ua Huka, but is now extirpated from all but the latter island. A special expedition in November 1991, co-sponsored by the Office of the Environment (FP)



These gazelles are some of the founder members of a captive herd of a new subspecies of *Gazella gazella*, which is currently being described. Its distribution and status in the wild are unknown but it probably occurs in the mountains of the south-west Arabian Peninsula (Saudi Arabia and Yemen) where hunting pressure is increasing. The captive herd (six females and eight males) has been assembled from private collections in Saudi Arabia and will be kept at the King Khalid Wildlife Research Center. (Extracted from information supplied by A. Greth and Douglas Williamson) (Photo by Xavier Eichaker, National Wildlife Research Center).



An ultramarine lory *Vini ultramarina* looks out from its travelling crate to inspect its new surroundings on Fatu Hiva.

and the Zoological Society of San Diego (ZSSD), found no lorries on Nuka Hiva or Ua Pou and a population of 1000–1500 individuals on Ua Huka. Although this population is fiercely protected by the Ua Hukan islanders, its future is of much concern due to the prospect of the construction of a wharf in 1993. Such development will allow the docking of large cargo ships, which will lead to the potential invasion of exotic rat species and further anthropogenic activities, i.e. industrial, agricultural and urban development. Such factors, in addition to cats, a large goat population, possible presence of avian malaria and the introduction of the common mynah and great horned owl, have led to the extinction of the ultramarine lory on all of the other islands.

In accordance with the draft recommendations of the ICBP/IUCN/CBSG Parrot Action Plan for *V. ultramarina*, the Zoological Society of San Diego undertook the first step of an experimental translocation of this lory species from Ua Huka to Fatu Hiva, the most southerly of all the Marquesan Islands. This decision was based on the prehistoric evidence of the lory in Fatu Hiva and the pristine nature of the island, having few of the environmentally negative features of Ua Huka; i.e. no wharf, no introduced rat species, no introduced avian

competitors or predators (mynah, owl, harrier), and a controlled goat population, which have allowed the island to maintain good primary and secondary forest cover. In addition, Fatu Hiva has many of the plant species known to be food plants for the lory, including kava, banana, coconut, coral tree, 'ahaia,' mango, 'tamanu', and Tahitian mango.

In August 1992 ZSSD staff, accompanied by personnel from FP Office of the Environment and the rural Economy Service, travelled to Ua Huka and spent 10 days mist-netting ultramarine lorries. Hampered by the unseasonable rains caused by Hurricane Omar, the total capture was seven lorries. These birds were kept for 6 days before being transferred by boat to Fatu Hiva. In Fatu Hiva the inhabitants of Omoa visited the birds while still in their holding cages and learned about the translocation programme. The birds were released in a foothill valley above Omoa, in an area rich in food plants, especially coconut and banana. All the birds were released at first light and began to feed on coconut flowers within minutes. Within 1 hour the birds' foraging activities took them high into the hills and out of contact with the human observers.

The birds will be monitored in the future by an employee of the Rural Economy Service, who will make field observations as well as collect data from other island residents. This translocation programme will continue on an annual basis to provide enough founder birds to establish this species on Fatu Hiva.

This translocation project is just one component of a comprehensive joint conservation programme between the government of French Polynesia and the ZSSD, which includes field research, continuous monitoring of endangered bird populations, translocations and captive-rearing.

*Cyndi Kuehler and Alan Lieberman*  
San Diego Zoo, PO Box 551, San Diego,  
California 92112-0551, USA