

ORYX

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Notes and News

India is now reaping the rewards of Project Tiger – the rewards of doing the job properly from the start. For Project Tiger may have been conceived by western minds and helped by western funds (WWF contributed over half a million dollars) but it is India that has put the plans into effect and was very quickly directing the whole project, and by 1980 India's Central Government had expended Rs4.76 crores – over £2.5 million. Since 1979 the cost has been shared equally between Central and State governments. Today there are 11 tiger reserves in 10 states, each with a minimum core area of 300 sq km where no human activity is allowed, plus a buffer zone where it is limited and carefully controlled. The total area of tiger reserves is 15,800 sq km, equivalent to just over two per cent of India's forested areas and a half per cent of the whole country. Tiger numbers have increased from 268 (in nine reserves) in 1972 to 711 (11 reserves) in 1979 – and with them all other wildlife too. (Plans are already being made to increase the size of the reserves.) From the start Project Tiger tackled the major and very difficult problem of human disturbance and interference. Villages had to be removed from reserves, especially the core areas, and villagers had to be persuaded, not coerced. In this the Project Tiger staff have been outstandingly successful. Great attention was paid to preparing the new village sites, building houses, preparing the land for farmers, providing fuel, etc – in fact, making the new area a great deal more attractive than the old – and 33 villages have been successfully moved, 17 from Kanha National Park alone. From the start Project Tiger aimed to preserve the total environment and to restore the habitat and the prey species. By fixing on the animal at the top of the food chain this was of course implicit, and as a result the quality of the reserves has improved vastly. Poaching, fires and illegal grazing have been brought under control by building new roads (868km), repairing old ones, and equipping guards with vehicles and communications systems; waterholes – the most limiting factor for the wildlife – have been deepened, cleaned and augmented, and new wells dug; serious weeds like lantana are being eradicated. The result is a vastly improved vegetation, more regeneration, more fodder for the wild herbivores, improved soil and water

conservation. Streams that formerly dried up for long periods now continue to flow – and this affects areas outside the reserves too. Moreover, with Project Tiger India has created a corps of foresters who are committed conservationists, and has spread an awareness of the value of conservation throughout India (the value of having one tiger reserve in every state). It has made India one of the major conservation nations in the world.

The 400-km-long one-metre-high wall built round the Indian lion sanctuary in the Gir forest has proved remarkably successful in keeping out the numerous herds of domestic cattle that formerly denuded the sanctuary. The wall is more

**Right Prey
for the
Gir Lions**

a 'psychological' barrier than a physical one, says Gujarat's Chief Wildlife Warden, Shri M. A. Rashid, but, coupled with the removal so far of over 500 of the 845 families in the reserve – all resettled outside with government help – the result has been a spectacular

improvement in the vegetation which in turn has brought an increase in the ungulates on which the lions prey, especially spotted deer; these doubled in number between 1974 and 1979. It should be possible now to wean the lions from a diet of domestic cows. Tourist numbers have greatly increased, and it is now planned to create a 400-hectare (1000-acre) 'safari park' within the Forest, enclosing a pride of lions and their natural prey animals, where all tourists can see them – a better system than the present 'lion show' which involves a live buffalo bait. Plans are also well advanced for transferring some of the lions, of which there are about 200, and reintroducing them in an area some 700 km away, where they occurred at the beginning of the century.

The vicuña saga in Peru has taken yet another turn. Early last year doubts were thrown on the apparently phenomenal increase in numbers in the Pampa Galeras reserve as shown by the ground census figures, particularly as the high

**Vicuña
on the
Up and Up**

numbers (some 40,000), coupled with range deterioration due to alleged severe drought, were given as the reasons for starting both to translocate some animals to other reserves and shoot others for meat. The International

Fund for Animal Welfare, one of the chief critics, commissioned Dr Keith Eltringham to make an aerial sample survey; this was done in April 1980 and estimated numbers at some 12,000. With such a discrepancy in the figures, it was clear that a much fuller survey had to be made. IUCN/WWF commissioned Dr M. Norton-Griffiths and Sr H. Torres Santibañez to do this. Their report, after they had observed the 1980 ground census in September, endorsed it as being reliable and well carried out, and suggested that the estimate of some 48,000 vicuña was in fact on the *conservative* side. At the same time they found no evidence of range deterioration, and put the carrying capacity of Pampa Galeras at some 200,000. But the report's strongest recommendation is on the need for immediate scientific studies to produce the information on population dynamics without which proper management plans for the reserve cannot be made, and that this

be done before present management has altered important factors in the population. For the next few years cropping should be for the research, taking about 1000 animals a year, 700 females and 300 males. And, as IUCN/WWF points out, methods must be humane (another point of criticism). The twofold aim of the Pampa Galeras project has always been first to build up the numbers of vicuña and then to utilise the meat, hides and wool for the benefit of the local people, who are the landowners and who in 1965 only agreed to the project on these conditions. The vicuña are after all increasing at the expense of their domestic animals. And even 1000 animals, cropped for research purposes – ageing, sexing, etc – will enable some wool, hide and meat to be used by the local people. The vicuña story is still one of marvellous success, for which Peru deserves all praise. In 1965 there were only a few thousand vicuña in the whole of South America. Today the number is put at between 70,000 and 77,000.

Before the controversial harp and hooded seal hunts started this year WWF and IUCN strongly condemned the current practice of the Canadian Government of fixing quotas with insufficient knowledge of the status and population trends of either species. Too little is known about the Atlantic harp seals' numbers or breeding, or the effects of harvesting, for quotas to be set with any confidence. Moreover, the harp seals' main food, capelin, are seriously depleted and nothing is known of the effects of this on the seals. The situation of the hooded seal, which is far less numerous, is equally serious, as the quotas are based on analyses that are old and were severely criticised when they were made. Quotas should be set well within safe limits (but are not) until the scientific studies have been done – and we know what we are doing.

The progress of the British Wildlife and Countryside Bill through the House of Lords ended in a draw in favour of the Government. The wildlife conservation lobby, marshalled by Wildlife Link under its redoubtable Chairman, Lord Melchett, and most skilfully led by ffPS Chairman, Lord Craigton, also Chairman of CoEnCo, has won a number of excellent minor victories, but the Government has won the most important, concerning the future of the SSSIs (sites of special scientific interest). These, representing the irreducible minimum of habitat that is needed to preserve the future of Britain's wildlife, occupy only some four per cent of Britain's land area. If the Government has its way in the House of Commons too, only some 40 out of 3800 SSSIs will be adequately safeguarded. The Government accepted an amendment by which all landowners must for the first time be given particulars of an SSSI on their land. The Government also took powers to produce a voluntary code under which the landowner should report any destructive action before doing anything. The conservationists had no faith in voluntary codes, and their key amendment was lost by the conservationists by only nine votes – 100 to 109, and then only by the Government pulling out all

**Seal Quotas
Are
Too High**

**Halftime for
the
Wildlife Bill**

the stops to put its payroll vote through the lobbies. The issue is whether the scheme for preserving the Is should be entirely voluntary or have some element of compulsion beyond the Nature Conservancy Council's existing powers, which it always fears to use against a sitting landowner. The conservationists insist that there must be more teeth in the SSSI provisions than that. As to the victories, they are not inconsiderable when totted up: marine reserves in the Bill against Government wishes, badgers fully protected outside the TB areas, otters protected in Scotland, red squirrels on the list of endangered species, no Sunday shooting. The preparations for battle in the Commons are hotting up.

The French Government and a French business firm have combined to set up a turtle 'farm' at St Leu on the Indian Ocean island of Réunion (which is a French dependency). This is in order to exploit the green turtles *Chelonia*

**Ranching
Green
Turtles**

mydas of the world's largest nesting populations on two small islands, Tromelin to the north and Europa in the Moçambique Channel, which are part of the dependency. Because hatchlings are being taken from the wild the operation is in fact ranching, not farming. The company running the project has perfected a food (to a secret formula) that is said to meet all the turtles' needs for quick growth, and 30 tanks each holding 1500 turtles have been installed on the edge of the sea. After three years it is expected that their weight will have increased to 40-50kg and the first harvest can be taken; this should be in 1982. But if 15,000 hatchlings are to be taken annually can even the enormous Europa population stand such a drain on top of the very active turtle hunting that goes on in the Moçambique Channel?

The final phase of Operation Oryx is now well under way in the Jiddat-al-Harasis, an area of about 50,000 sq km in the heart of the Sultanate of Oman. The ten Arabian oryx flown in from San Diego Zoo last year and released into the fenced one-sq-km enclosure prepared for them, took to their new surroundings immediately, grazing on the natural vegetation and using the shade of acacias during the heat of the day, reports Karen Stanley-Price, wife of Dr Mark Stanley-Price who is in charge of the project. Unfortunately in April the youngest male was bitten by a carpet viper *Echis carinatus* and died, but a female calf was born in May. Four more oryx from the World Herd in San Diego are expected soon. Seventeen Harasis, the local Bedu tribe, are employed as rangers to look after the oryx. Traditionally the Harasis do not hunt their wildlife, and they bitterly regret the extermination of their wild Arabian oryx by hunting parties from outside Oman. The Jidda' has a considerable wildlife, with Arabian gazelles, which are tamer and more abundant than elsewhere in the country, as well as goitred gazelles, ibex, hares, foxes, hyenas, wolves, possibly caracals, and numerous small mammals and reptiles. HM Sultan Qaboos bin Said shows a deep concern for his country's wildlife, and it is his generosity and keenness that is helping to realise the final aims of Operation Oryx, 19 years later, to return the

Arabian oryx calf born
in Oman in May
G.N. Woods



Arabian oryx to its former range. The oryx will be fitted with radio collars before they are released so that the rangers can track their movements and watch over them for as long as necessary. Meanwhile the Harasis eagerly await the three or four births expected during the next two months, for two of these will be genuine Omani oryx, conceived, born and raised on the Jidda'.

There was much speculation when Zimbabwe achieved independence as to what would be the new government's attitude to wildlife and habitat conservation. But Mr Mugabe, the Prime Minister, has shown himself fully aware of their importance. 'We must respect nature if we are to survive and prosper as a nation' he said, addressing conservationists. 'My Government and I will give every support to the Natural Resources Board and the conservation movement in their endeavours to ensure the conservation of our country.' He described wildlife as 'one of our most valuable natural resources', and gave his full support to the Wildlife Department's drive against poaching, of which there was a serious upsurge. He also expressed his concern about the elimination of tree cover, and to combat this has decreed an annual National Tree Day – the first was December 6, 1980 – as a day dedicated to planting trees. It is an interesting fact that the war in Zimbabwe did in fact lead to a decline in poaching in some areas, because it was just too dangerous to go into the bush. As no wildlife management was possible either, one result was an increase in elephants.

**Mr Mugabe
and
Conservation**

An interesting conflict has developed in the Olympic Mountains National Park in the USA as a result of the introduction of mountain goats *Oreamnos americanus* more than 50 years ago. At the time the mountains were under the control of the Forest Service, which allowed hunting on its lands, and this may have been the reason for the introduction. From the initial 11 or 12 animals numbers have increased until today there may be as many as 700.

**The
Dangerous
Goat**

Clearly the new habitat suited them, but for the Fish and Wildlife Service, now in charge, they pose problems. The Olympic Mountains are geologically isolated – which may be why there were no mountain goats there before their introduction – and the result has been that endemic species unique to the mountains have developed, notably twelve species and varieties of alpine plants. With the harsh climate, short growing seasons, shallow soils and low productivity, alpine environments are exceedingly fragile, and mountain goats are no respecters of such conditions. Not only do they feed on flowers, thus destroying seed, eating far more than their immediate need in

order to lay down fat to see them through the severe winters, but in summer they will dust bathe, throwing soil over their bodies to cool themselves, thus creating bare patches that inevitably mean erosion. Trampling, too, has serious effects on plants in these poor soils, and now that the goats have occupied all suitable habitats in the park their increasing numbers mean more intense grazing and wear. What botanical studies have been done suggest that these goats have reduced plant cover, increased erosion and changed the dominant plants to more resistant or less palatable species, which may compete successfully with the endemics. Exclosures – fenced areas built to keep out the goats – suggest that recovery is a slow business, if indeed it occurs at all. But to remove the goats now would raise public outcry. The white goats are popular, even if they are destroying the unique features of a national park.

A national park in Tanzania where for the first time visitors could watch habituated chimpanzees, in the way that mountain gorillas can now be watched in Rwanda, is recommended by a group of Japanese scientists in a report prepared at the request of the Tanzanian Government.

**New Park
for
Tanzania?**

This is in the Mahale mountains in southern Tanzania which the scientists have been studying for the last 15 years. A very poor area, with almost no inhabitants other than roaming hunters and honey collectors, the mountains are scientifically of great interest because they are the meeting place of the miombo woodland of East and Central Africa with the tropical rain forests of Zaire; also research on the miombo woodland, which covers most of Tanzania, could be very valuable to Tanzania. The Government believes that the area could best be used as a national park, and there is a good chance that the Japanese Government will finance the project.

In 1968 and 1972 the Mammal Society published reports based on evidence supplied by otter hunts, showing that otters had declined drastically in England and Wales but were still numerous in Scotland. Now a two-year

**Otter
Decline in
Scotland**

survey (1977/79) shows no signs of otters recovering in England and Wales and an actual decline in Scotland, where otters are not protected as they are in England and Wales. (The new Wildlife Bill will repair this.) In England otters are most numerous in Devon and Cornwall, present in East Anglia, the north, the south, the south-west and on the Welsh border, and sparse or absent over most of the centre; in Wales they are most numerous in Mid- and south-west Wales and absent from most of the south-east and centre and parts of the north coast; in Scotland they appear to have declined in the south – ‘the otter has already vanished from much of the central lowlands and parts of eastern Scotland’ – and are most numerous, predictably, in the north and north-west and the islands. The crash in otter populations in the late 1950s is believed to have been mainly caused by pesticides, especially DDT, draining off farmland into the rivers. But other factors contribute to keep

numbers down, notably lack of cover and human disturbance – and the less cover there is the less disturbance the otters can stand. Something is being done to build up otter numbers, notably by the Otter Trust in East Anglia and the Vincent Wildlife Trust, with which ffPS is associated, by enlisting the sympathy and co-operation of landowners and river boards to create otter havens and encourage riverside trees and undergrowth. But it is a painfully slow process, and the arguments for trying reintroductions always founder on cost and whether our rivers are by now pollution-free.

How to keep elephants out of the corn can be a major problem for farmers in all elephant country, especially those on the edge of national parks and reserves; it is one that often brings farmers and conservationists into conflict. In Kenya a new electric fence is being tried out that looks like the answer. Its new features are high voltage, which makes it possible to run the fence for much longer lengths and still be effective, even against elephants, and an alternative power supply in a battery that can be recharged from solar cells that cost almost nothing to maintain. A farmer bordering the national park on Mount Elgon in western Kenya, who had lost crops to elephants in the previous three years valued at £8400, £25,000 and £30,000, installed 6km of the fence at a cost of K.Shs37,000 per km, and found it so effective that he expected the next crop to realise three times the cost of the fence in one year. A similar fence is to be erected along 4½km of the Aberdares National Park, equipped with electronic monitors which will sound an alarm at any breakthrough. If the fence lives up to its promise – and keeps out other animals, notably buffalo, which it is said to do – it would improve relations between farmers and conservationists and bring many more farmers to support wildlife conservation. But of course it cannot solve the problem of the elephants that turn up on farms because logging or cultivation has destroyed their habitat and there is nowhere else for them to go.

Even a hundred years ago the small Indian Ocean island of Rodriguez had changed ‘from an earthly paradise with an old and luxurious vegetation, as seen by François Leguat in 1691, to a barren and arid island with an excessively fragmentary flora’, says the Mauritian botanist Dr D. D. Tirvengadam. Today with nearly 30,000 people living in the 42-sq-mile island, together with their pigs, sheep and goats, the effect is ‘devastating’. Only the sturdier species survive and invading weeds flourish. Of 33 known endemic plants, at least nine are extinct and 12 endangered. Of a dozen or more endemic birds, only two survive, the fody *Foudia flavicans* and, very precariously, the brush warbler *Acrocephalus rodericanus*; introduced birds and invaders feed on the insects that are their food and also eat the seeds of several rare endemic trees. The only surviving endemic mammal is the fruit bat *Pteropus rodericanus* and that is far from safe. Dr Tirvengadam urges the need

Keeping the Elephants Out

Vanishing Plants of Rodriguez

for nature reserves, and suggests four areas to protect the endemic plants and three more for the birds and the bats. He makes it very clear that only if this is done can the endemic flora and fauna of Rodriguez be saved from total disappearance.

In 1966 the number of rhinos in India's Jaldapara Wildlife Sanctuary was estimated at 50-60. By 1978 there were 25, due to poaching by one local gang that is so well organised and efficient that not one member has yet been

**What to Do
with
Rhino Horn**

convicted. 'India's Government has sincerely tried to stop the smuggling of wildlife products', says Esmond Bradley Martin, in a report to WWF/IUCN, 'but with so much profit to be made on the international market and with such well-coordinated syndicates, it goes on unabated.'

An average Indian rhino horn weighs 720 grams and is easily hidden; it could fetch \$6000. (The highest bid in the 1979/80 Forest Department sale in Assam was \$7800 a kilo from a merchant in Manipur, but the price ranges up to \$9000 in the Far East.) In Kaziranga National Park in Assam rhino poaching is a highly organised business, and, despite severer sentences in the courts, still very worth while. Dr Bradley Martin recommends that the Indian Forest Department should stop its rhino horn auctions, which only encourage poaching, and that all rhino horn coming into the possession of conservation authorities should be destroyed. One African government, Botswana, has already destroyed its stocks, but the SSC, meeting in Delhi, was unable to agree with this method of combating poaching.

The crocodile farms in Papua New Guinea now hold some 25,000 crocodiles, all bought as small animals from village hunters. Last December 43 saltwater crocodiles *C. porosus*, which had been reared until they were above the legal

**People
and Crocodiles
in PNG**

limit at which they could be taken, were released into the wild to restock a depleted area. The local people in the release area (in Gulf Province) were enthusiastic; their interest and support had been enlisted by two Wildlife

Officers, Mark Rose and his counterpart Kebua Karava, and they now realise, says Melvin Bolton, Manager of this FAO-supported Project, that they benefit more by selling fewer live small animals to the farms than more small skins to traders. They have agreed to support a ban on trade in all small skins of less than seven inches belly width. The best news of 1980 for Melvin Bolton was that the PNG National Executive Council had approved Regulations to include this ban. The release of the 43 crocodiles went without a hitch, says Rom Whitaker, Production Manager, and proved 'the feasibility of inexpensive crocodile restocking programmes'. The animals were released in pairs, about 500m apart, on the upper navigable limites of two creeks – one pair immediately started courtship despite having spent the previous 60 hours tied up in a bag and 32 hours in a boat. He urges that other depleted areas should be similarly restocked.

In August 1980 the Panamanian Government decreed the huge 5900-sq-km Darien National Park, which spans the isthmus from the Pacific coast to within a few miles of the Atlantic. A vast area of wilderness – the largest in Central America – the new park includes large tracts of untouched tropical forest, and will protect a great wealth of wildlife – much as yet unexplored – including a least three endangered mammals: jaguar *Panthera onca*, ocelot *Felis pardalis* and tapir *Tapirus bairdii*. But because it spans the isthmus and its southern boundary runs along the frontier with Colombia for 100km, this park can also provide an effective barrier against foot and mouth disease spreading into North America – the joint North American-Panamanian Commission has been involved in the Management Plan – and also facilitate control of illegal immigration. Care will also be taken to enable the few settlers and indigenous people in the park area to continue their traditional way of life. The steep mountains, high rainfall and poor soil combine to make the area unattractive for agriculture, but the forests are vastly important to protect the lower regions from floods and erosion. Because the Master Plan requires considerable funding – \$4 million initially – IUCN stepped in immediately the park was declared to support a short-term Operational Management Plan, under which staff have been appointed, basic equipment purchased, guardposts established, patrolling started in key areas, and indigenous people involved. It is urgent to get this magnificent park well established in order to forestall the threats, chief of which is the Pan-American Highway that will go right through the park. Once this is completed the pressure from colonisers is likely, says IUCN, ‘to become a flood’.

Sleeping sickness in humans and trypanosomiasis in animals are spread by tsetse flies (*Glossina* spp) which inhabit 10 million sq km of humid and semi-humid land stretching across Africa from the Atlantic to the Indian Ocean. In 1976 the FAO launched a campaign to eradicate tsetse (and with it the diseases) in seven million of these. This, said FAO ‘could result in an increase of up to 120 million head in Africa’s cattle population’. Tsetse clearance schemes are nothing new – but hitherto they had been tackled mainly by clearing bush, which shelters the flies, and killing wildlife, especially warthogs, which host the fly. But after appalling destruction – hundreds of thousands, probably millions, of animals were killed in the tsetse areas between the 1920s and 1960s – the overall result was failure, with the tsetse flies returning often in greater numbers because the regenerating bush was even denser and better cover. All tsetse eradication programmes, however successful initially, depend in the long run on whether the cleared areas can be fully developed and maintained for agriculture so that the tsetse can be kept out permanently – and this is where most have fallen down and continue to do so. The FAO method is aerial spraying of pesticides, particularly endosulphan, but however carefully done this affects many

**Is Clearing
the Tsetse
Worth While?**

non-target species. In Niger, for example, aerial spraying of endosulphan killed 90 per cent of the fish in the Mekrou river in the W National Park; in Nigeria at least two bird species were locally exterminated. These are the observable casualties; equally serious, perhaps more, are the unseen ones – the insects, for example – and the accumulation of poisons in the food chains and even in man. But even if the control measures do succeed, is this the wisest way to exploit this vast resource of unexploited land – ‘perhaps’, as one expert says, ‘the most valuable resource that Africa possesses’? In southern Africa for example, the FAO scheme aims to clear the tsetse in the Caprivi strip, and clear the wildlife reserves in order to prevent reinfestation of neighbouring cattle areas; immediately of course cattle move into the reserves. Even here reinfestation has occurred, spraying has had to be repeated, and eradication seems unlikely unless spraying is continued *indefinitely*. In an area like this surely the wildlife makes infinitely better sense. Destroying the wildlife in order to farm cattle on marginal land, to which they are usually quite unsuited, is bad land-use planning; all too often it results in over-grazed land and more destruction. Now that the value of wildlife and wild places is beginning to be appreciated some of the vast sums being expended on tsetse eradication could be put to much better use in designing good land-use and development programmes that will take wildlife conservation and use into account.

CITES

China and Japan were among the latest signatories of CITES represented at the third Meeting of the Parties in New Delhi in February-March. The Convention on International Trade in Endangered Species now has 67 signatories, making it one of the largest and fastest growing international treaties. The agenda was long, with many controversial issues, but for the most part the Parties opted for the conservation measures, despite the pressure of a US delegation representing the new Reagan government that opposed virtually any major extension of protection. Sperm whales were added to Appendix I (which bans all international trade) and parrots (except ring-necked, budgerigar and cockatiel) and black coral to Appendix II.

ffPS, represented by John A. Burton, played an active part both in the meetings and the Technical Expert Committees. The meetings were attended also by three of the Society’s Vice-Presidents, one Council member and many Overseas Consultants.

Through its close association with the IUCN/SSC TRAFFIC Specialist Group (now the Wildlife Trade Monitoring Unit) ffPS was particularly concerned with the adoption of ‘Guidelines for the Transportation of Live Animals’, which had been prepared with the support of the RSPCA. Despite opposition from commercial interests involved in transport, notably IATA, these were adopted by the Parties, and hopefully will stimulate legislation in all countries to ensure that live animals are transported humanely, and prevent the all too frequent mass mortalities. Progress was also made on defining ranching operations and on the production of forgery-proof documents to accompany shipments of ivory and other wildlife. A committee was set up to examine the concept of ‘reverse listing’ (i.e. the Appendices would list the species that are *not* controlled) and will report back at the next meeting in 1983.