

News and views

New guenon from Gabon

by Michael Harrison

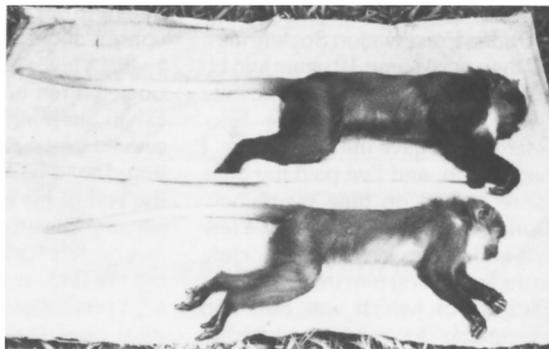
The July issue of the *Journal of Zoology* sees the publication of the description of a newly discovered species of monkey from Gabon's equatorial rain forest (Harrison, 1988). The monkey, to be called the sun-tailed guenon *Cercopithecus solatus*, was discovered by the author while surveying primates in the remote Forêt des Abeilles in Central Gabon in 1984.

Since that time, a number of steps have been taken to find out more about the biology and conservation status of this rare species: sample specimens of skins and skulls have been collected from hunters and placed in the British Museum (Natural History); six live individuals have been found in hunters' camps and now form the basis of a captive breeding colony at CIRMF (Gabon) and Paimpont (France); chromosomal analysis has confirmed its status as a full new species; and a survey of its distribution has been carried out and confirms initial impressions of a very small isolated population.

Until recently the Forêt des Abeilles in central Gabon was relatively inaccessible, but with the construction of the Trans-Gabon railway line (completed in 1987), interest in the area has mushroomed. Forestry permits have been allocated to logging companies throughout the region, and many areas have been selectively logged and now have a network of roads along which hunters have easy access to the interior.

Perhaps ironically, my trip into the area in 1984, by boat and on foot, was with a forestry prospecting team surveying commercial trees. A hunter supplying meat for the team brought in a freshly shot adult male of an unknown monkey. He knew the animal as 'mbaya'.

The monkey is a large-bodied guenon (males 6 kg, females 3.5 kg), dark grey to black, with a white throat ruff and chestnut-orange saddle; the males have a powder-blue scrotum. The most striking feature is the yellow-orange tip to its tail, after which it is named — 'solatus' means sunstruck. Its saddle, throat ruff, and semi-terrestrial habits most closely resemble those of two other isolated populations of guenons, the mountain monkeys *C. lhoesti* (1600 km to the



The sun-tailed guenon; a young adult male and a young adult female obtained from hunters in Gabon (G. Renson).

east in Zaire) and *C. preussi* (600 km to the northwest in Cameroon). Their chromosomes confirm this similarity: *solatus* has 60 chromosomes, like *lhoesti* and *preussi* (which form the *C. lhoesti* superspecies), but unlike all other forest *Cercopithecus*, which have more than 60. The karyotype or 'genetic fingerprint' of *solatus* is unique, however, and confirms its status as a full new species.

Its distribution is very limited, bordered by large rivers on three sides, covering an area estimated by J. P. Gautier (University of Rennes, France) to be less than 4000 sq km.

The existence of a third isolated population of guenons in the *C. lhoesti* superspecies is particularly interesting for our understanding of the patterns of evolution and distribution of African forest monkeys. The fluctuating wet and dry climates associated with recent ice ages are thought to have resulted in alternating periods of disintegration and expansion of tropical rain forest. Animals isolated as forests contracted would have differentiated into new forms, and remained distinct on subsequent re-expansion of the forest. This accounts for the great diversity of guenons in equatorial Africa. Some populations, like the three *C. lhoesti* species, may have remained isolated from each other through competitive exclusion by other primates.

Of more immediate importance is the threat this biogeographical isolation poses to the sun-tailed guenon. Its extremely limited distribution makes it particularly susceptible to the effects of hunting and habitat disruption. We hope that publication

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of the official zoological description of this new species will further encourage efforts to protect part of its distribution by extension of the nearby Lope Reserve, a proposal that has been put to the *Ministere des Eaux et Forets* in Gabon.

Reference

Harrison, M.J.S. 1988. A new species of guenon (genus *Cercopithecus*) from Gabon. *Journal of Zoology*, **215**, 561–575.

Michael Harrison, Department of Zoology, West Mains Road, Edinburgh EH9 3JT, UK.

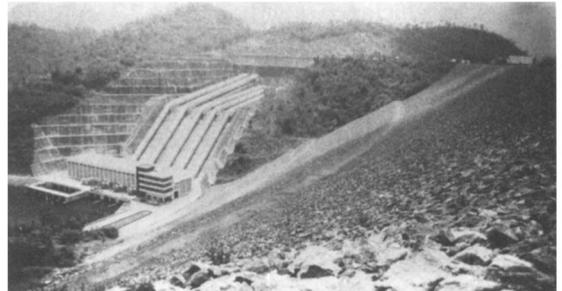
Thai forest wins reprieve from dam by Stephen Elliott

Part of mainland South East Asia's largest primary forest has won a reprieve from being flooded beneath a reservoir. On 4 April 1988 the Thailand Government shelved plans to build the Nam Choan Hydroelectric Dam because there was insufficient information about its likely impact on forests and wildlife. The decision effectively kills the project for now, but leaves open the possibility that it could be revived in the future.

The dam, 187 m high and 430 m wide, would have spanned a tributary of the River Kwai Yai near the Thai–Burmese border. The reservoir created by the dam would have cut through the heart of Thailand's largest wildlife sanctuary, Thung Yai Naresuan, flooding one of the last remaining fragments of lowland riverine forest in the country.

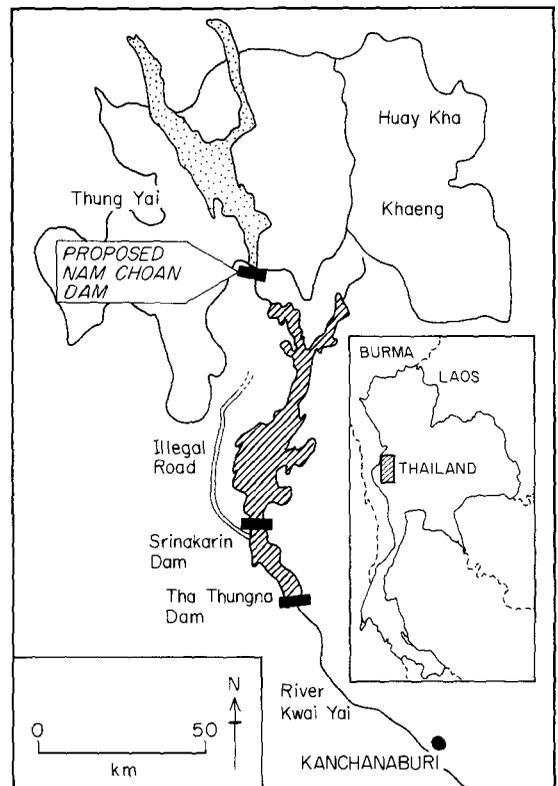
Thung Yai, with the adjoining Huay Kha Khaeng Wildlife Sanctuary, protects 5775 sq km of pristine tropical forest. The area contains several rare large mammal species such as tiger *Panthera tigris*, clouded leopard *Neofelis nebulosa* and tapir *Tapirus indicus*, and Thailand's largest populations of elephant *Elephas maximus* and gaur *Bos gaurus*. Javan Rhinoceros *Sondaicus* and Sumatran rhinos *Dicerorhinus sumatrensis* may still survive there. Conservationists argued that the reservoir would have prevented the seasonal migration of animals between their dry season and rainy season feeding grounds and increased the risk of inbreeding in the resulting fragmented populations.

In September last year a government committee, *News and views*



The Srinakarim Dam about 50 km downstream from the proposed site of the Nam Choan Dam. Nam Choan would have been constructed in the same way (Stephen Elliott).

chaired by Deputy Prime Minister, General Thienchai Sirisamphan, was set up to consider the pros and cons of the dam. In purely monetary terms, Thienchai's committee considered the project viable. The dam would generate 580 megawatts of electricity more cheaply than any other method, saving Thailand about £35 million a year in imported fuel costs. Critics claimed that



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increasing efficiency at Thailand's 13 existing hydroelectric dams or economies in energy consumption would have the same effect at a fraction of the cost.

Information about the likely effects of the dam on forests and wildlife was either confused or non-existent. There was disagreement about how much forest would be affected by the project. The Electricity Generating Authority of Thailand (EGAT) claimed that only 175 sq km of forest would be destroyed. The Forestry Department put the figure nearer 814 sq km. Forest surveys carried out by EGAT to support their claim were strongly criticized as being 'sloppy, misleading or simply fraudulent'.

The Electricity Generating Authority claimed that the presence of the dam would encourage protection of the remaining forest in the catchment area. This would be essential to prevent soil erosion and rapid silting up of the reservoir, and EGAT gave £5.75 million to the Forestry Department to safeguard forests around the proposed dam site. Army Commander-in-Chief, General Chavalit Yongchaiyudh, pledged support of the army to protect the forest. Opponents claimed that even the army would not be able to prevent encroachment by loggers, settlers and wildlife poachers, once the area had been opened up with the many roads and power lines that would have to be built to service the dam.

Committee members agreed that wildlife species restricted to riverine forest, such as the practically extinct white-winged wood-duck *Cairina scutulata* and the spectacular green peafowl *Pavo muticus*, would be seriously affected by flooding of their habitat, but effects on more wide-ranging animals could not be determined due to inadequate information. The Electricity Generating Authority promised a rescue operation to save animals stranded on islets as the reservoir filled, but this would have saved very few animals and there would be no riverine forest left in which to release them.

Thienchai's committee was also asked to solicit public opinion, the first time in Thailand that the public have been involved in decision-making concerning a major public project. This represents a marked change in the Government's attitude, compared with 1982 when Prime Minis-

ter, General Prem Tinsulanonda, banned public opposition to the project by students and civil servants. More than 40 groups, including student conservation clubs, Kanchanaburi residents and Wildlife Fund Thailand, united to run an effective campaign against the project with protest rallies, petitions and letters to newspapers.

Thienchai's committee concluded that although the Nam Choan Dam was economically viable, environmental and ecological information was insufficient to justify building the dam. The Council of Economic Ministers endorsed the committee's recommendations and shelved the project, pending further studies. However, no further studies are planned and EGAT has already announced plans to build coal-fired power stations to substitute for Nam Choan. Following the decision, steps have been taken to increase protection of Thung Yai. More than 500 families living illegally within the wildlife sanctuary will be resettled elsewhere. Four new checkpoints will be set up on the sanctuary's northern boundary and the Forestry Department is assessing the feasibility of using microlight aircraft for anti-poaching patrols. It therefore appears that Thung Yai may be safe for some time.

Conservationists now hope that the Government will push ahead with plans to make Thung Yai Thailand's first World Heritage Site and secure the future of this unique wilderness.

Stephen Elliott, Biology Department, Chiang Mai University, Thailand, 50002.

The Future of the Tropical Rain Forest by Ian Edwards

At the end of June, 250 scientists, government representatives and campaigners met at an international conference at Oxford to discuss the future of the tropical rain forest. Others who could not find room in the crowded theatre watched the proceedings on TV monitors outside. Many of the major tropical timber countries had sent delegates and most of the main timber importing countries were present, with the exception of Japan, the world's most prolific consumer of tropical hardwoods, which holds one-third of the votes at the International Tropical Timber Organization.

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During the two days, scientists who had spent the whole of their professional lives working in the tropical forests could provide only a handful of examples of successful logging schemes that had any long-term viability. All of these relied on low technology (hand felling, pit sawing, extraction by draft animals) and natural regeneration. The myth that you can replant tropical forest that has been logged rapidly and ruthlessly using chain saws and bulldozers was finally put to rest. The analogy between mining and commercial lumbering was used several times during the conference and appears to be a wholly appropriate one.

Single-species plantations that have been established in the tropics can not be regarded as forests. In many cases these plantations have been planted to provide non-timber resources—latex, oil, fibre, fruits, fuel—and they should properly be considered as agriculture not forestry. On the other hand, it was pointed out that plantations can achieve at least some of the ecological functions of the forest, recycling of water for example, and must be preferable to the degraded scrub or treeless landscape that follows the worst type of exploitation. The point was emphasized that with millions of square kilometres of open land in the tropics, there can be no justification for converting primary forest into plantations. The place for plantations or tree farms in the future should be surrounding the remaining primary forest, providing a buffer zone, demarcating the boundary, and providing income for people living outside the forest. The ODA/WWF Korup project in Cameroon was presented as a successful model of this integrated approach to tropical forest management.

It is not surprising that the diverse range of interests represented at the conference resulted in some fairly impassioned debate. Perhaps the most fundamental argument, presented very eloquently by Teddy Goldsmith, editor of *The Ecologist*, was that development, on the Western growth model, was responsible for the destruction of tropical forest, and if not stopped or reversed would result in the complete demise of this precious resource. This opinion seemed to receive some support from campaigning groups like Friends of the Earth, Survival International and the World Rain Forest Movement, but was of course totally unacceptable to the government

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and international development bodies, represented by ODA, FAO and the World Bank. Their solution to the rain-forest problem is more aid money spent on more projects to develop the resources of the forest, including greater investment in forestry.

The FAO approach is presented in the Tropical Forestry Action Plan (TFAP), which suggests that £8 billion should be allocated to support these objectives (8 per cent of this going directly into conservation). The TFAP was at the centre of much of the debate at the Oxford Conference, but the strongest attack came from Chee Yoke Ling, a Malaysian lawyer who had the daunting task of representing NGOs worldwide. She put in a particular plea for the people who inhabit the tropical forests and who have lived in harmony with the ecosystem for generations. While academics and government officials devise national forestry action plans, using the TFAP guidelines, the tribal people of the forests have very rarely been consulted. The controversy over the future of the tropical forests will surely continue, but it is hoped that discussions will extend beyond Oxford, Washington or Rio de Janeiro and into the forests themselves.

Ian Edwards, Royal Botanic Garden, Edinburgh EH3 5LR, UK.

Sri Lanka declares a new national park by Jane Wilson

On 18 June Sri Lanka's national newspapers and television announced that the Horton Plains Nature Reserve had been upgraded to a national park. Although it will probably be a year or so before access restrictions are fully implemented, this is an encouraging move to protect more strictly a valuable ecosystem. This move underlines the high priority that conservation is given on the island; about one-tenth of Sri Lanka comprises reserves, most of which are quite well protected.

The majority of Sri Lanka's reserves were created to protect water catchments and Horton Plains is no exception. Its rainfall supplies three of Sri Lanka's most important rivers: Mahaweli, Kelani and Walawe. The reserve is small,

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approximately 32 sq km, but it is high (2000 m) and has a unique ecology. It is a patchwork of peat moorland covered with coarse, tussocky grass and stands of dwarf bamboo in the little valleys and lower-lying ground. Montane forest grows on the slightly elevated, better-drained areas. The forest is dominated by endemic *Callophylum walkeri*, tree ferns and rhododendrons (eg. *Rhododendron ceylanica*), with a profusion of epiphytic orchids and luxuriant lichens typical of cloud forest.

Until the 1930s elephants roamed the Plains and there are plans to reintroduce them. At present the largest inhabitants are sambar *Cervus unicolor unicolor*; other mammals include mouse deer *Tragulus meminna*, and a beautiful pure black form of highland grizzled or long-tailed giant squirrel *Ratufa macroura macroura*. There are about 30 Sri Lankan leopards *Panthera pardus fusca* in the reserve as well as the rare rusty spotted cat *Felis rubiginosa* and the fishing cat *F. viverrina*. The yellow-tufted bulbul *Pycnonotus penicillatus*, which is endemic to the highlands of Sri Lanka, is also extremely common in the park.

Horton Plains is the home of the rarest of all mammals in Sri Lanka, the Ceylon mountain slender loris, an endemic subspecies *Loris tardigradus nycticeboides*, which was first described in 1942. It is believed that these once interbred with the lowland subspecies, but forest clearance, mainly by tea planters, has isolated them. Another endemic primate is locally common. This is the bear monkey or highland purple-faced leaf monkey (which actually has a jet black face) *Presbytis vetulus monticola*. Like the loris, it also has a restricted range. It is extremely shy and, therefore difficult to observe, but it is by no means as threatened as the loris.

At the end of the 1960s, the grasslands were turned over to potato cultivation, a project that has been abandoned for over a decade. Now the main threats to the region are forest fires (some started maliciously) and poaching deer for meat. Overuse by Sri Lankan, and some foreign, visitors is also a problem, for these tourists come in droves on bank holidays to look at the spectacular view from World's End, leaving rubbish and uprooting wild flowers. In addition there has been a recent puzzling die-off of trees in at least two areas. It is believed that the principal cause is



A bear monkey, a shy inhabitant of Horton Plains (S. E. Howarth).

the unusually low rainfall, especially over the last 3 years, combined with the fact that many of the trees are very old. Some regeneration is going on, however. A postgraduate ecologist, Shyamala Ratnayeka from the Institute of Fundamental Studies, Kandy, is currently researching this problem.

The upgrading of Horton Plains to a national park will allow increased control over those allowed to visit the reserve, and thus threats from poachers and fire-lighters should disappear. Funds derived from entry permits should help justify an increase in staff sufficient to enable them to deal with accidental fires.

Jane Wilson, 6 Sparrow Farm Road, Ewell, Epsom, Surrey KT17 2JU, UK.

Whalers treading water by Kieran Mulvaney

It is the nature of whaling politics that what you least want to happen does so when you least expect it to. So it was last year when, in the immediate aftermath of the International Whaling Commission conference in Bournemouth, I wrote on these pages that it seemed most unlikely that the United States would strike one of its notorious bargains with any of the whaling nations. No sooner had the article gone to press than the US promptly struck just such a bargain with Iceland, thus allowing the Icelanders to kill 80 fin whales and 20 sei whales for 'scientific' reasons, even though the US delegation to the IWC had

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been the driving force behind a series of resolutions that resulted in the Commission asking Iceland to stop its research whaling.

It was a series of veiled threats from the Iceland Government, stating that the future survival of a NATO base in Iceland could not be guaranteed if Washington stood in the way of Icelandic whaling, that prompted the Reagan Administration to retreat from the prospect of expressing its disapproval of Iceland's continued whaling by imposing fisheries sanctions.

Several months later, the Administration did impose some sanctions, not against Iceland, but against Japan, when it invoked the Packwood–Magnuson Amendment, and so reduced the Japanese fishing quota in US waters, first by 50 per cent, and then by the full 100 per cent. Unfortunately, changes in the nature of commercial fisheries around the world generally—and in fisheries agreements between Japan and the US in particular—mean that, it was little more than a cosmetic gesture.

The gesture was made in response to the Japanese scientific whaling fleet killing minke whales in the Antarctic, despite a number of requests from the IWC and its scientists for it not to do so. At last year's IWC conference, Japan had presented a proposal to take 825 minke whales and 50 sperm whales a year for at least 12 years, but when the Commission rejected the plan, this was commuted to an initial, one-season kill of 300 minkes as a 'feasibility study'. A special meeting of the IWC Scientific Committee found much to criticize in this proposed study and the UK proposed a condemnatory resolution on which the Commission voted by post. Undaunted by the criticism, the Japanese fleet set sail anyway, and, even as the voting reached completion (the UK resolution was supported by 20 votes to 6 with 2 abstentions), started killing whales. The fleet returned home in April, having 'sampled' 273 of the planned 300 minkes.

Japan did not present a new proposal when the full Scientific Committee held its annual meeting in San Diego in May this year, explaining that the results of the 'feasibility study' still had not been fully evaluated. Iceland announced its decision to carry on as before. The Republic of Korea—the third nation to have a scientific whaling proposal criticized in Bournemouth—declared an

end to its research whale-killing. But Norway, having announced a cessation to its commercial whaling, did put forward a proposal for a special permit programme of its own. This proposal would require the killing of 30 minke whales, and anaesthetization of five more, this year, and the deaths of an undisclosed number—probably more than 200 annually—in succeeding years.

Given that the IWC had already decided last year that it had the authority to comment on members' scientific whaling programmes, the task before the conservationist members of the Commission at this year's meeting in Auckland, New Zealand, was simple enough—namely to propose, and have adopted, two resolutions recommending that the new research whaling programmes proposed by Iceland and Norway are not conducted. This was duly achieved.

And that, on the scientific whaling front at least, was that. There were fewer raised voices and heated arguments than there were in Bournemouth; indeed, compared with previous years, the Auckland conference was relatively quiet and enlivened only by a brief debate on Japan's coastal whaling and some extraordinary propaganda from the All Japan Seamen's Union.

With the United States now not only unable and unwilling to support the Commission's decisions with political action, but also—if the disappointing performance of this year's US delegation is anything to go by—apparently no longer prepared to make any even mildly controversial comments during the IWC meetings either, the impression is that the IWC is treading water—biding its time until 1990, when the commercial whaling moratorium is to be reviewed.

Then again, it may be that at least one of the remaining whaling nations will have been persuaded that enough is enough, and that it is time to quit the whaling game. This column has to be completed three months before it is published and in those three months the picture can change a great deal. As a result, you who are reading this in October may know more of the consequences of the Auckland meeting than I, who attended and am writing this in June.

Kieran Mulvaney, Whale Conservation Society, 22 Hughenden Road, Weston-super-Mare, Avon BS23 2UR, UK.

Postscript

One very important development that did take place before *Oryx* went to press was the announcement of a deal between Iceland and the US under which Iceland may kill up to 68 fin and 10 sei whales this year. There have been reports that both Norway and Japan also intend to press ahead with their scientific whaling plans, but at the time of writing these are still subject to confirmation.

K.M.

Contraception versus culling

In 1980 it became apparent that there was an unnaturally high lion/prey ratio in Etosha National Park, Namibia. The probable reasons included fencing the park some years previously, which had altered the entire ecology. Wildebeest migration routes were severed. In the rainy season anthrax bacilli multiplied in the alkaline gravel pits that had been dug for road building and many animals were killed by this fatal disease, particularly zebra and wildebeest. The dead animals provided unlimited food for the lions. Boreholes were dug to provide permanent waterholes; at each a pride of lions established itself and cub mortality dropped. While lion numbers increased, the numbers of other predators—cheetah, hyaena and wild dog—declined, possibly as a result of competition with the lions.

In past years, park managers faced with this situation would have probably carried out a lion cull. But now it is known that culls based on insufficient knowledge can be disastrous ecologically and that there are other disadvantages, including attracting criticism from the public. A cull was ruled out and instead an investigation into the lives of the free-ranging lions was launched to study population trends and to discover how best to manage their numbers if it were thought necessary.

With culling ruled out, the only alternative appeared to be a contraceptive pill. Although Dr Ulysses Seal had used contraceptive implants to control the fertility of lionesses in zoos, the

method had never been attempted for lions in the wild. The Etosha lion contraceptive experiment was conducted by Dr Jock Orford on five prides, all of whose 59 members were immobilized and branded to enable future recognition. Of the 35 females, 10 were given contraceptive implants and none of these became pregnant while the implant remained in position. In 1000 hours of behavioural studies, the scientists could detect no difference between treated and untreated lionesses. On recapturing the lionesses with implants the researchers found no important change in weight, condition or blood hormone levels, and no physical deterioration or deaths could be linked with the contraceptive treatment. Three lionesses had their implants removed after two years and all ovulated soon after, eventually producing healthy cubs.

In May 1985 one of the prides being studied was killed—with poison, traps and guns—when its members went through the nearby boundary fence on to a neighbouring farm. This pride has not been replaced because the lions have undergone a population crash, from 500 lions in 1981 to 250 in 1985 and 200 in 1987. The reasons for the decline are not fully known, but it is assumed that the drought and the resulting reduction in prey are important contributory factors, although there must also be insufficiently understood natural mechanisms operating. The contraceptive experiment is not likely to have had a significant effect because it involved only 10 lionesses out of an estimated 300 in Etosha at the time. Had a cull taken place in 1981 it could have been disastrous, for in all probability the strong naturally selected pride males would have been shot. It now seems that the lion population of Etosha needs no control, but if it is ever necessary in the future, temporary contraception would be infinitely preferable to culling; a culled lioness can never return to breed.

Source

Orford, R.A. 1988. Culling lions is not the answer. *African Wildlife*, **42** (2), 61–65. *Oryx* Vol22 No4, October.