### Contents

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Editorial</td>
<td>1</td>
</tr>
<tr>
<td>Felids Cats in Israel</td>
<td>2</td>
</tr>
<tr>
<td>New Cat Discovered</td>
<td>4</td>
</tr>
<tr>
<td>Scavenging by Fishing Cat</td>
<td>5</td>
</tr>
<tr>
<td>Melanism in Jungle Cat</td>
<td>5</td>
</tr>
<tr>
<td>Study of Wildcat-Domestic Cat Hybridisation in Scotland</td>
<td>5</td>
</tr>
<tr>
<td>Fierce Controversy over Lynx in Switzerland</td>
<td>5</td>
</tr>
<tr>
<td>New Park in Spain Will Help Pardel Lynx</td>
<td>5</td>
</tr>
<tr>
<td>A Lynx “Terrorises” Leningrad</td>
<td>6</td>
</tr>
<tr>
<td>Endangered Cats in Chile</td>
<td>6</td>
</tr>
<tr>
<td>Hunting and Conservation in Ecuadorean Amazonia</td>
<td>6</td>
</tr>
<tr>
<td>Symposium of Asian Pacific Mammalogy</td>
<td>6</td>
</tr>
<tr>
<td>Snow Leopard “Common” in Pakistan’s Khunjerab National Park</td>
<td>7</td>
</tr>
<tr>
<td>Snow Leopards Outwit Hunters</td>
<td>8</td>
</tr>
<tr>
<td>Snow Leopard Studbook</td>
<td>8</td>
</tr>
<tr>
<td>Snow Leopard Conference in Alma Ata</td>
<td>8</td>
</tr>
<tr>
<td>Leopards in Turkey</td>
<td>8</td>
</tr>
<tr>
<td>Leopard Prey in Panda Areas</td>
<td>8</td>
</tr>
<tr>
<td>Leopard Conservation in South Africa’s Cape Province</td>
<td>9</td>
</tr>
<tr>
<td>World Record Jaguars Claimed in Bolivian Pantanal</td>
<td>9</td>
</tr>
<tr>
<td>Plan to Radio-track Jaguars in Venezuela</td>
<td>9</td>
</tr>
<tr>
<td>Favourable Factors for Genetic Future of Siberian Tigers in the Wild</td>
<td>10</td>
</tr>
<tr>
<td>WWF Funds for South China Tiger Survey</td>
<td>10</td>
</tr>
<tr>
<td>Bangladesh Tigers</td>
<td>12</td>
</tr>
<tr>
<td>Tigers Lost in Floods</td>
<td>12</td>
</tr>
<tr>
<td>New Tiger Reserve in South India</td>
<td>12</td>
</tr>
<tr>
<td>International Tiger Studbook 1988</td>
<td>12</td>
</tr>
<tr>
<td>Uncovering the Secret Life of the Tiger</td>
<td>12</td>
</tr>
<tr>
<td>Farmers for Cheetah Hunting in Zimbabwe</td>
<td>13</td>
</tr>
<tr>
<td>Record of a White Cheetah</td>
<td>13</td>
</tr>
<tr>
<td>Hong Kong Gourmets Frustrated</td>
<td>14</td>
</tr>
<tr>
<td>Seized Skins Burnt in Brazil</td>
<td>14</td>
</tr>
<tr>
<td>World Conservation Monitoring Centre</td>
<td>14</td>
</tr>
<tr>
<td>Vo Quy Awarded WWF Gold Medal</td>
<td>14</td>
</tr>
<tr>
<td>Ranthambhore Foundation Works To Save Famous Tiger Reserve</td>
<td>15</td>
</tr>
<tr>
<td>Cat Specialist Group Members</td>
<td>16</td>
</tr>
</tbody>
</table>

*Cover: Leopard Cat (Photo: WWF/E.P. Gee)*

---

CAT NEWS is the newsletter of the Cat Specialist Group of the IUCN Species Survival Commission. It is published twice a year, and is available to subscribers to FRIENDS OF THE CAT GROUP. The current subscription is $20 p.a., payable to The Chairman, IUCN/SSC Cat Specialist Group, World Conservation Centre, 1196 Gland, Switzerland.

Contributions, papers, press cuttings etc. about the wild cats are welcome.

CAT NEWS is produced with financial assistance from WWF and Friends of the Cat Group.
Action! Action! Action!

Paul Joslin, Deputy Chairman of the Cat Group, is now deep into preparing a Cat Conservation Strategy and Action Plan. Before the end of the year we intend to have produced a document reviewing the current status of each cat species; assessing conservation priorities; and recommending specific actions.

Members of the Cat Group are the principal sources of information. They will be asked for input in their particular areas of expertise. All contributions will receive due credit. Drafts will be reviewed, in particular when the Cat Group meets on 26 August in Rome at the time of the International Theriological Congress.

The value of the final document for cat conservation depends on the efforts of all of us. When completed it will be printed in a series of Action Plans now being published by the Species Survival Commission and distributed to all organisations, institutions and individuals in a position to promote conservation of the wild cats. It will be used to raise funds for specific projects.

To paraphrase Admiral Horatio Nelson's famous signal before his victory in the Battle of Trafalgar:

THE CONSERVATION COMMUNITY EXPECTS EVERY MEMBER OF THE CAT GROUP TO DO HIS DUTY

Survey of the Status of Leopard in Subsaharan Africa

Copies of the survey report by Rowan Martin and Tom de Meulenaer have been sent by the CITES Secretariat to those who ordered them. The status of the leopard is an important issue for the Cat Group, and the report is sure to be discussed at the CITES Conference of the Parties in Lausanne 9-20 October this year.

Most leopard specialists who are members of the Cat Group should have received my request for comments. But others are also invited to have their say.

I suggest that comments should be in three parts:

1. Has the computer model produced a reasonably accurate estimate of the potential leopard population, and, if not, why not?
2. Given the widespread impression that there is still a large leopard population in Africa, even if the estimate in the report is discounted, are the recommendations concerning possible exploitation justified?
3. Should the leopard remain on Appendix I of CITES, which bans international commerce, or should it be moved to Appendix II, which provides for trade monitoring through licensing? Should there be some safeguards if the leopard were moved to Appendix II?

Time is short because any proposals for substantive changes in CITES have to be made by Governments by 12 May, and it would be useful if the Cat Group could make expert opinions known in time to have some influence. May I then ask you to send me your comments as soon as possible, and at the latest by 31 March. Leopard specialists who received my request for comment should note these earlier dates than I gave.

If you have not had the leopard report you can obtain one from the CITES Secretariat, P.O. Box 78, 1000 Lausanne 9, Switzerland, T: (021) 200081; Tlx: 24584 ctes ch; Fax (021) 200084. The price is Sfr.20 including airmail postage.

Cat Group to meet in Rome

The Cat Specialist Group will meet in Rome on 26 August in association with the International Theriological Congress. The main business will be a review of the draft conservation strategy and action plan for cats being drafted by Paul Joslin. Members of the group should already have received an invitation to attend the meeting of the Species Survival Commission on 20-22 August before the Congress and I look forward to seeing many of you there.

Peter Jackson
Chairman

CHAIRMAN
Peter Jackson, M.A. (Cantab.), F.Z.S.
1172 Bougy, Switzerland
Tel: (021) 808 6012
Tlx: 419605 iucn ch
Fax: (022) 644615

DEPUTY CHAIRMAN
Dr Paul Joslin
16219 70 Place West
Edmonds, WA, 98020, USA
Tel: (206) 742 0819
Fax: (206) 684 4854

Cat News No 10, January 1989
Felids in Israel

H. Mendelsohn
Department of Zoology, Tel Aviv University, Ramat Aviv, Israel

Despite its small area, Israel has a relatively rich fauna, due to its location at the crossroads of three continents and because of the large variety of habitats and climates. Carnivores are represented by 17 species: one viverrid; one hyaenid; five canids; five mustelids, and five recent felids. Two additional felids have become extinct. The lion Panthera leo existed until the time of the crusaders, and the cheetah Acinonyx jubatus was last seen in southern Israel in 1959.

Most of the wildlife in Israel is legally protected by the “Wild Animals Protection Law”, enacted in 1954. This law also protected all carnivores, except the jackal, which was only later declared a protected species. The legal protection of carnivores in Israel is reasonably well enforced. Cases of intentional killing of carnivores, mainly by shooting, are rare and carried out only by the ethnic minorities – Arabs and Druse, with whom the traditional animosity towards carnivores is still prevalent. There are, however, occasional cases of mortality caused by pesticides, mainly secondary poisoning from feeding on poisoned pest rodents. Mortality of carnivores caused by humans in Israel is mainly through road accidents, which, however, do not appear to endanger any species, as shown by the hyaena Hyaena hyaena. This species has a small population in Israel (rough estimate: 150), and is very prone to road accidents, with about 20 animals being killed in this way every year. However, the population seems to be slowly increasing. One advantage of road deaths is that they provide documentation on the distribution of the carnivores concerned. For example, the recent spread of the stone marten Martes foina is well-documented by road deaths.

The five recent species of felids occurring in Israel are: wildcat Felis silvestris tristrami, sand cat F. m. margarita, jungle cat F. chaus furax, caracal F. caracal schmitzi and leopard Panthera pardus, that is now represented in Israel only by the subspecies P. p. nimr.

1. Wildcat (Felis silvestris tristrami)

This species was until recently quite common and widely distributed in mesic as well as in desert habitats. The preferred habitat is open Mediterranean forest in hilly areas. In this habitat they reach a high density of approximately one specimen per km². They also occurred formerly in plains, where cover was available, but these areas are now mostly cultivated. In the desert the distribution is sporadic, but they have been found in different desert habitats, even in sandy areas. Specimens from the desert are much lighter in colour than the relatively dark ones from Galilee and Golan.

The species is endangered by habitat destruction and especially by the large number of feral domestic cats, which compete for food, and interbreed with them. Unlike other carnivores, Felis silvestris cannot make use of cultivated habitats because of the competition from domestic cats. Because the feral domestic cats are larger than wild cats, they are probably dominant when competing for food and for oestrous females. Feral cats are able to build up dense populations because their main food source is found in garbage and because they produce two litters per year, whereas wildcats normally breed only once. Another danger for wildcats is feline distemper. Wildcats have no resistance whatsoever to this infection and captive-bred wildcats always succumb if not vaccinated in time. Feral cats acquire resistance at an early age. Feline distemper may be one of the reasons for the decline of wildcat populations in recent years. Few nature reserves in northern Israel are large enough to ensure the survival of pure F. s. tristrami. A breeding group of pure wild cats is kept at the Canadian Center for Ecological Zoology at Tel Aviv University.

2. Sandcat (Felis m. margarita)

Sandcats have been found in sandy desert habitats in Sinai (the exact localities are withheld in order not to endanger these populations) and in the Arava depression in southern Israel. The local population is morphologically and biochemically identical with F. m. margarita from North Africa. They are restricted to sandy habitats that unfortunately have been found to be good agricultural soil in Israel, and are now largely cultivated. There are, however, still quite large sandy areas on the Jordanian side of the Arava depression.

A field study of this species was begun recently by M. Abadi of the Nature Reserves Authority. To date, three males and one female have been trapped, fitted with radio transmitters, and released. The sand cats live in burrows, probably excavated by other animals, such as Rüppell’s fox Vulpes rueppellii. Quite often they have also been found outside their burrows during the day. They occasionally move over large distances; one of the males, after having been trapped, went eight km in one night but returned to his home burrow the next night. Remnants of spiny-tailed lizards Uromastyx aegyptius, that are very common in the area, have been found near their burrows, indicating that they feed, among other things, on this large diurnal lizard.

Two females, found at night by Z. Zook-Rimon, crouched when located by the headlights of the jeep, did not move when approached from behind, and could be picked up by hand. A young male in Sinai behaved in the same way.

A breeding group is kept at the Canadian Center for Ecological Zoology at Tel Aviv University. Young are born from spring to autumn, 2-5 kittens per litter. The captive sand cats dig much more in the sand covering the floor of the cages than do other cats. This well-developed digging behaviour may perhaps indicate that they dig for food or perhaps excavate burrows for themselves.

The species is endangered in Israel through destruction of its habitat and predation by larger carnivores, such as caracals and wolves, that find improved availability of food near human settlements and reach higher than normal densities, or dogs. These carnivores, however, rarely enter the areas of soft sand inhabited by the sand cats, but may endanger them if the cats venture into areas of harder soil, as they occasionally do.

3. Jungle cat (Felis chaus furax)

The jungle cat is fairly common in northern and central Israel near water – rivers, ponds, swamps, etc. Favoured, man-made habitats are water reservoirs and particularly fish ponds, near which they are often found as food (fish, birds and rodents) is plentiful. The typical jungle cat habitats are in lowlands, but at least in one case a family of jungle cats lived near water – rivers, ponds, swamps, etc. Favoured, man-made habitats are water reservoirs and particularly fish ponds, near which they are often found as food (fish, birds and rodents) is plentiful. The typical jungle cat habitats are in lowlands, but at least in one case a family of jungle cats lived
near a small pond in the hills of Galilee, 500 m above sea level. Despite their size, they generally capture relatively small prey. No cases have been recorded of their attacking adult nutria Myocastor coypu, but they often prey on young ones. Fish are caught by the mouth through diving into the water, and without much aid from the front feet.

Jungle cats swim willingly and often walk long distances in shallow water, where their tracks may be seen if the water is clear.

Jungle cats appear to live in families, at least while the young are being reared. In captivity males are more protective of the young than the females. This behaviour may be connected to the large difference in size between males and females.

The species is not endangered in Israel. If pisciculture methods were to change from pond culture to intensive fish-farming in small concrete ponds, this would deprive the jungle cats of their most favourable habitat. There would, however, remain sufficient additional habitats to ensure the continued existence of this species.

4. Caracal (Caracal caracal schmitzi)

Caracals are quite common in Israel south of the Tel Aviv-Jerusalem line. There are generally few records north of this line. In 1964 the Plant Protection Department of the Ministry of Agriculture organized a large scale poisoning campaign against jackals Canis aureus syriacus, that until then were not legally protected (this campaign resulted in the jackal being added to the list of protected wildlife). After this drastic decimation of the formerly very common jackal, hares Lepus capensis syriacus and chukar partridges Alectoris chukar cypriotes increased considerably. In the following years more caracals were observed, also in northern Israel, indicating a possible competition between jackals and caracals. Jackals have the competitive advantage as their main food source is garbage dumps, whereas caracals are dependent on game.

Caracals feed mainly on hares, but also on chukar and desert partridges Antemorpinus haem, and occasionally also on hedgehogs, rodents, etc. Several cases have been recorded of caracals preying on gazelles. They also take dead chickens and turkeys that have been thrown on garbage dumps by poultry farms, and a caracal was also reported to have been seen driving a hyaena from a carcass at one of the feeding stations that are run by the Nature Reserves Authority for vultures.

A study on caracals has been carried out by Y. Wisbein in the northern Arava depression. In an area of about 100 km², 13 caracals were trapped and marked, and eight were fitted with radio transmitters. This high density is due to the fact that two agricultural settlements are situated in this area. The year-round availability of succulent green food, of weed seeds and water, has caused a considerable increase in caracal prey, mainly hares and desert partridges. Many of the caracals had home ranges that extended beyond the research area, so that the density is actually less than 13 per 100 km², but still quite high. Males have larger home ranges than females, with some overlap of home ranges and the same area may be visited by different specimens.

In the area between Tel Aviv, Jerusalem and Gaza, a dark colour morph occurs. These caracals are grey, darker on the forepart of the body, very different from the normal light reddish-brown colour. Young kittens of this morph are almost black. About 5-10% of the population in this area are of this grey morph.

The caracal is not endangered in Israel.

5. Leopard (Panthera pardus)

Three subspecies of leopard have occurred in this area. The Sinai leopard P. p. jarvisi is now extinct and very little material of this subspecies exists in collections. As in the extremely overgrazed, overbrowsed and overhunted Sinai very little wildlife remained, leopards had, in recent times, to prey on the goats of the Bedouin herds and were, therefore, relentlessly persecuted. They were trapped and killed in the traditional stone traps, as well as steel traps, and were shot. Tracks of at least one leopard were seen in 1956, but by 1967 and later, no more tracks were found, and this population must be considered extinct.

A second subspecies, the Anatolian leopard P. p. tulliana existed until recently in the Galilee. Specimens of this subspecies are very big and are among the largest leopard subspecies. They must have been plentiful in the past, as in many villages in Galilee, skins of leopards were to be found in the 30s and 40s of this century. There were many sight records and some records of specimens killed. Possible prey were wild boar Sus scrofa tybica, porcupines Hystrix indica, hyrax Procavia capensis syriaca and jackals Canis aureus syriacus. Because of heavy hunting pressure this food source was not very ample, apparently, and leopards preyed from time to time on livestock, with the same results as with Sinai leopards. The last specimen, an old male, was cornered in a cave in western Galilee and killed by a shepherd in 1963. As the population of the leopards in Galilee decreased, wild boar populations began to increase, as did the damage caused by these pigs to agriculture, mainly orchards.

Later reports of observations in Galilee have not been substantiated. There are still, from time to time, reports of leopards, probably this subspecies, from different localities in the Golan. A leopard population in the Golan could be in contact with a population on the thinly-settled Mount Hermon, and such a population could be a viable one, if the species were effectively protected in Syria.

The Anatolian leopard is on the verge of extinction in Turkey, and as it is very rare in the Golan and on Mt. Hermon, if it exists at all, the whole subspecies is highly endangered and the prospects for its continued survival are extremely slim. The isolated, now extinct, population in Galilee did not survive by the time conservation in Israel became effective.

In the Judean desert, a rocky wilderness along the western shore of the Dead Sea, and in the Negev (southern desert) a third leopard subspecies, the Arabian leopard P. p. nimr, exists. The Judean desert is a habitat, that until recently, had been less influenced by human activity than others in Israel. The Bedouin there hunted every form of wildlife and their herds overgrazed the sparse desert vegetation, but nevertheless, owing to the difficult terrain, all species survived, albeit in small numbers, and among them the leopards. When effective conservation began, first in the southern part of the Judean desert from the oasis of Ein Gedî southwards, and after 1967 also in the northern part, vegetation and wildlife recovered. The most dramatic recovery was that of the leopards and one of their prey animals, the ibex Capra ibex nubiana. The leopards that had been constantly harassed by the Bedouin, survived in very small numbers only. The first proof that leopards still existed in this area was a female, killed by Bedouin in 1964 in Nahal Zeelim (Wadi Selay). She had two active teats and was, according to the Bedouin who shot her, accompanied by two others. A year later a male was shot north-west of Ein Gedî. From that time on, leopards were seen more often and, as harassment ceased, the leopards became bolder and less afraid of humans.

Cat News No 10, January 1989
People often met leopards and in order to minimize the possibility of an attack, the Nature Reserves Authority forbade camping in the area and restricted hikers to groups of less than five. Leopards are especially attracted to the oasis of Ein Gedi—a very productive area with a population of about 120-150 ibex in an area of 3-4 km², several hundred hyrax and also porcupines, all leopard prey. Sometimes three leopards are in this area at the same time. This oasis is visited by tens of thousands of tourists and there is a kibbutz, a youth hostel and a field study center for the Society of Protection of Nature. Hyrax and ibex have become accustomed to people and are very tame.

Female leopards rearing cubs often visit the settlements at night in order to prey on the numerous domestic cats and on small dogs (large dogs are generally not attacked), notwithstanding the ample amount of natural prey that is available at Ein Gedi. Members of the kibbutz objected to the presence of the leopards on their property, sometimes meeting them on staircases or at close quarters. In order to prevent possible hostile action towards these leopards (one was actually shot at and slightly wounded), the Nature Reserves Authority trapped and thereby, unfortunately, removed two reproductive females from this small population.

Ten years ago G. Ilani of the Nature Reserves Authority began a long-term study of the leopards in the Judean desert. Several specimens were equipped with radio transmitters and their activities, home range, etc. are being studied. A large amount of information has been accumulated that will be published in the not too distant future. One female, now very old, has been under observation for almost the whole period. This population, which developed from a very few specimens and survived the period of intense persecution, is probably very inbred and copulation between a female and her mature son was observed recently.

The rugged habitat in which these leopards and their main prey, ibex and hyrax, live in the Judean desert, covers an area of 300-400 km². About 8-10 leopards may live in this area and several more in mountainous areas of the Negev, so that the whole population can be estimated at perhaps 15 to 20 specimens.

The Arabian leopard is one of the smallest subspecies—only P. p. nanopardus in Somalia is smaller. Females generally have a weight of 23-28 kg. They lose weight when rearing a cub and gain weight when the cub is weaned. A normal-sized, but very obese female had a weight of 32 kg. This female lived near a hotel area and probably fed on domestic cats and perhaps also on food found in the garbage dump. Males have a weight of 32-35 kg, in one case of 40 kg.

The population is endangered, notwithstanding the protection it enjoys, because of its small number, the restricted area of suitable habitat and by possible conflict with humans and development. Hyaenas may prey on cubs that are left by the mother for several days when she has to hunt.

6. Cheetah (Acinonyx jubatus)

There are no reliable records of cheetah from the Israel area in this century, apart from one relatively recent observation. Harrison (1968) states that there have been no reliable records of the cheetah for the whole of the Arabian peninsula since 1950. There is, however, a record from Jordan of a female and her cub that were killed in 1962.

The only record from the area of Israel for this century is for 9 December 1959. A truck was driving on the Beer Sheva-Eilat road early in the morning at 80 km/hr. About 80 km north of Eilat the drivers saw an animal running on the road in front of the car, easily keeping its distance. When the road made a turn the animal ran straight, leaving the road, and stopped, looking at the passing truck. The drivers, who knew nothing about cheetahs, described the animal as yellow and spotted all over like a leopard, but with a thin body, very long legs, a small cat-like head and a long tail. When shown pictures of a leopard and a cheetah, they insisted they had seen a cheetah. Thirteen days later at 19.00 h, the same animal was possibly seen again for a few seconds, running in front of a moving jeep before disappearing into the night.

7. Lion (Panthera leo)

According to the Bible, in which it appears under several different names, the lion must have have been quite common at that time. The species appears often on mosaics from the Roman and Byzantine periods, but it is not mentioned after the time of the Crusaders. In Galilee there is a hill called Tel el Assad (Lion Hill in Arabic), and there is a village nearby called Dier el Assad (Home of the Lion), that may refer to a quite late occurrence of this species.

New Cat Discovered

Dr Yuiit Ono of Kyushu University, Japan, reports finding what he believes to be a new cat on the 700 km² island of Tshushima between Japan and South Korea. He thinks it is related to the leopard cat Felis bengalensis, but it is slightly smaller and darker.

Ono says that, although the leopard cat is found in North Korea, it is absent from South Korea, and from Japan, which suggests that the Tshushima cat has been separated from the leopard cat for some considerable time. He suggests that leopard cats are absent from South Korea because pine forests growing on rough limestone carry little suitable prey and therefore serve as a natural barrier.

The Tshushima cat he estimates to number less than 100. The island is occupied by about 60,000 people, mostly mushroom growers and fisherman, who are not a threat to the cat. There is also timber production. Feral cats occur on the island, but they do not appear interbreed with the Tshushima cat.

Tshushima consists of steeply-sided mountains with many ravines, which Dr Ono believes make ideal habitat for the cat. The vegetation is quite unlike that found on Iriomote Island, near Taiwan, where the Iriomote cat F. iriomotensis was found by scientists 20 years ago.

Ono, who has studied the Iriomote cat, completed a preliminary study of the Tshushima cat's ecology in 1988 and plans to carry out more intensive work involving radio telemetry over the next few years. On a related note, Ono says that Dr Hasegawa, a paleontologist, has discovered the fossil of a cat resembling that of the Iriomote cat on the island of Miyakojima Island, near Iriomote, which suggests that the Iriomote cat has been a separate species since at least the Pleistocene.

The Iriomote cat was originally put into a new genus Mayailurus by Dr Yoshimori Imaizumi of the National Science Museum in Tokyo when he described it in 1967, but it is now widely considered con-specific with F. bengalensis.
Scavenging by Fishing Cat

Md. Nayerul Haque reports finding a fishing cat *Felis viverrina* scavenging a cow carcass in Keoladeo National Park, Bharatpur, India. Haque, who is carrying out research on the fishing cat, states that although larger cats, such as tiger, are known to feed on carrion, he was unaware of earlier records of scavenging by fishing cats. *(Journal of the Bombay Natural History Society Vol.85, No.1 April 1988, Bombay)*

Melanism in Jungle Cat

Three melanistic specimens of jungle cat *Felis chaus* were found in the collection of the Bombay Natural History Society during a revision of the Indian Felidae. S. Chakraborty, R. Chakraborty and V.C. Agrawal state this is the first record of melanism in the present territory of India, although Pocock (1939) and Roberts (1977) reported melanistic specimens from Karachi, Tharparker and Thatta in Sind Province of Pakistan.

The skins found in the collection were from Arcadia Tea Estate, Tamilnadu (1940); Belgaum, Karnataoka (1912); and Tikoli (near Gwalior), Madhya Pradesh (1914). *(Journal of the Bombay Natural History Society Vol.85, No.1 April 1988, Bombay)*

Study of Wildcat–Domestic Cat

Hybridisation in Scotland

Britain's Nature Conservancy Council is trying to determine the extent to which hybridisation has occurred between wildcats *Felis silvestris* and domestic cats *F. catus*, thereby threatening the wild species.

In its Annual Report for 1987-1988 the Nature Conservancy Council states that, as a result of less intense persecution, wild cats are increasing in Scotland, where they had been all but exterminated by 1900. As long as wildcats were confined to remote areas their genetic integrity was probably secure, as the wildcats were unlikely to come into contact with domestic cats. But there is now evidence that, as the wildcat recolonised parts of northern Scotland, the two have interbred and “hybridisation is now a threat to the wild species”. The Report states: “We do not know the extent or the full area in which hybridisation has occurred, so a new project, using sophisticated laboratory techniques, has been contracted to Edinburgh University and a private consultant to try to determine this. Blood samples are being taken from wildcats caught and released at intervals along lines radiating from the core area of the relict population in the northwest Highlands, and these will be tested for differences in DNA, immunological distance and isoenzyme structure.” *(Nature Conservancy Council, Fourteenth Report 1/4/1987-31/3/88, Peterborough, GB)*

Fierce Controversy over Lynx in Switzerland

Farmers and hunters in the Canton of Valais in Switzerland are striving to obtain federal permission to hunt the lynx, which they claim is killing excessive numbers of sheep, as well as wild roe deer and chamois.

The lynx, which was extinct in the Alps by early in this century, was reintroduced in Switzerland in the early 1970s and has reoccupied about two-thirds of the Swiss Alps. Although there have been complaints from elsewhere, opposition to the lynx has been fiercest in the Valais. The cantonal authorities have asked the Federal Government for permission to reduce lynx numbers because of the alleged damage they cause. However, federal wildlife authorities have opposed the request, and the government has called for evidence of damage before taking a final decision.

Hunting is opposed by the Swiss League for Nature Protection, which stated that claims that 1,000 sheep had been killed by lynx were unfounded. The League said that it had paid compensation of Sfr.7,250 (US$4,500) in 1987 for ten sheep and nine lambs killed by lynx and Sfr.1,800 (US$1,100) in the first three months of 1988 for six sheep. The League pointed out that under the hunting law any Canton had to prove with precision that the lynx had committed great damage to forests and agriculture, perturbed its environment, and represented a considerable danger to man. It said that in the case of the Canton of Valais the conditions on which lynx could be hunted had not been met, and any decision to hunt in the Valais would be prejudicial for all Switzerland.

The Swiss Association of Nature Photographers and Filmmakers, has expressed “outrage” at the hunting proposals. The Association said it indicated a profound misunderstanding of the habits and ecology of the lynx, which should be part of the country's fauna in its role as a natural selector. *(See CAT NEWS 9 for an account of lynx in Switzerland by Urs Breitenmoser)*

New Park in Spain Will Help Pardel Lynx

A 267 km² Natural Park has been established at Cabañeros, in the Toledo Mountains in central Spain, an area which had been proposed as a bombing range for the air force *(CAT NEWS No.7 p.27)*. The campaign for the reserve was led by the Federación Coordinadora para la Defensa de las Aves (CODA) because of the importance of Cabañeros for the endangered black vulture *Gyps monachus*, imperial eagle *Aquila heliaca adalberti* and for white and black storks *Ciconia ciconia* and *C. nigra*. But Cabañeros is also of great importance for the critically-endangered Spanish or pardel lynx *Lynx pardina*, and...
the Cat Specialist Group made a small donation towards CODA's campaign, as well as sending letters to King Carlos, Prime Minister Felipé Gonzales and Defence Minister Narcis Serra.

Cabañeros is said to be the biggest wild Mediterranean forest left in the world.

The bombing range will now be located 30 km from Cabañeros.

A Lynx “Terrorises” Leningrad

A lynx “terrorized” citizens of Leningrad for several days this January, according to the Tass newsagency.

The report, quoted by Agence France Presse, said the police were submerged by appeals from the public who had seen the “dangerous animal” in various public places. They called in professional hunters to find it.

It was thought at first that the lynx had escaped from a zoo, but it was later accepted that it had wandered in from the countryside, where fauna and flora are protected. After three days the police located the lynx in a park close to the fortress of Peter and Paul. While some people wanted it shot, conservationists vigorously defended it. While the argument raged, the lynx returned to the forest.

The report said that wild boar, and even beaver, were frequently seen in Leningrad, but it was the first time a lynx had appeared.

Endangered Cats in Chile

Pampas cat Felis colocolo, Geoffroy’s cat F. geoffroyi, and margay F. weidii are endangered in Chile, according to the conclusions of a symposium organised by the Corporacion Nacional Forestal (CONAF).

The Andean cat F. jacoba was considered rare, and the puma F. concolor vulnerable in general, but endangered in the three northern provinces of Iquique, Antofagasta and Copiapo.

The Symposium on the Conservation Status of Chilean Terrestrial Vertebrate Fauna was held in Santiago 21-24 April, 1987 and the conclusions have been published in the RED LIST OF CHILEAN TERRESTRIAL VERTEBRATES in English and Spanish. Meetings are to be held every two years to update the conservation status of species and a “Permanent Advisory Commission on Fauna Conservation” is being established to link Chilean specialists and CONAF or other public institutions.

The symposium recommended “very urgent” research on all five cat species. A series of general recommendations includes making effective laws to create a “Chilean Forest and Renewable Resources Agency” and a “National State Protected Wildland System” to make it possible to centralize the conservation of Chile’s wild terrestrial vertebrate fauna.

(Red List of Chilean Terrestrial Vertebrates. 1988. Chilean Forest Service (CONAF), Santiago)

Hunting and Conservation in Ecuadorian Amazonia

Jaguar, ocelot, margay, Pampas cat and jaguarundi are threatened with extinction in Ecuador, according to a paper prepared by Guillermo Paz and C. Miño of the Pontificia Universidad Catolica del Ecuador in Quito.

There is no information about the status of tiger cat and puma, the authors state in a review of hunting and conservation in Ecuadorian Amazonia.

After decades of heavy exploitation, during which one family claimed to have caught 10,000 ocelot in 15 years, trade in skins, teeth and claws declined drastically in the 1970s when Amazonian countries introduced controls. But skins are still sold in local markets, including in Quito, despite protective legislation. At the same time there has been aggressive colonization of tropical forests arising from an accelerated population increase.

The authors recommend establishment of more protected areas for wildlife, and extension of existing ones; efficient control of hunting and illegal commerce, especially in areas such as Lago Agrio, Coca, Misahualli, Tena, Puyo, Archidona, Tarapor and Tipischca, as well as the riverine areas of Amazonia; funding of cat studies in the wild and in captivity; public conservation education campaigns; and controls to ensure proper management and handling of captive animals.


Symposium of Asian Pacific Mammalogy

Urgent measures are needed to save the Siberian tiger Panthera tigris altaica in China, which is now confined to areas close to the eastern border with China and numbers only about 30, according to Ma Yiqing of the Heilongjian Institute of Natural Resources.

In a paper presented to the Symposium of Asian Pacific Mammalogy in Beijing in August 1988 Ma said suitable tiger habitats had shrunk and the tiger had been over-hunted, especially in the last 30 years. An investigation by Jilin and Heilongjian Provincial specialists in 1974 to 1976 indicated 151 tigers at that time. The tiger had been wiped out in the Daxingan Mountains and probably in the Xiaoxingan Mountains. Today the tiger lives mainly in Zhangguangcai, Changbai and Laoyeling Mountains, he declared.

Peter Jackson, Chairman of the IUCN/SSC Cat Specialist Group, said that the South China tiger P. t. amoyensis was on
the brink of extinction, with fewer than 50 reported surviving in the wild. In a paper on the status and conservation of the Asian felid species, it was noted that the Asiatic cheetah *Acinonyx jubatus venaticus*, now found only in Iran and Turkmenistan, was also critically endangered, as was the Pakistan sand cat *F. margarita scheffelli* and some leopards, notably the Amur leopard *P. pardus orientalis*. The Asian lion survived only in a single population of about 230. The Iriomote cat *F. iriomotensis* had been reported to number fewer than 50, but according to Yutit Ono of Kyushu University, Japan, reporting at the symposium on radio tracking studies, the population is about 100.

Jackson said loss of habitat, especially in the tropical and sub-tropical forests of the Indo-Malayan Realm, was the major factor in the decline of the cats.

Paul Joslin called for greater efforts to develop recovery plans like those announced by India for the snow leopard *Panthera uncia*, which was considered rare throughout its range in some of the world's most isolated, inaccessible mountainous terrain. He said the true status of the species was not well understood, although recent studies had indicated that there were likely to be more snow leopards than the estimated 1000 formerly reported by IUCN. The reserves along the southern boundary of the snow leopard's range were mostly inadequate in size to sustain genetically viable populations. They should be increased in size and corridors provided between them. Joslin said the snow leopard was secure in captivity.

Chen Jun and Wang Taisong, of the Department of Geography, Lanzhou University, China, stated that the authorities in most counties of the loess plateau in Gansu Province were collecting 30-100 pelts annually of golden cat *F. temminckii* and fox *Vulpes corsac*. Pelts of Pallas's cat *F. manul* also occurred in fair numbers.

Wang Sung of the Chinese Institute of Zoology said that the future of conservation in China had reached a critical stage and he called for a sound, scientifically-based conservation action plan "so that efficient and coordinated measures can be implemented by the Chinese and world conservation community. He noted that South China tiger and snow leopard were key species among the endangered mammals, while leopard cat and other felines were of economic value.

Pei Chyi Jai, Wang Ying and Richard D. Taber declared that the clouded leopard *Neofelis nebulosa* was probably extinct in Taiwan, and leopard cat *F. Bengalenis* was probably endangered. They said most mammals of over one kg had long been sought by aborigines, partly for sale to the much larger Chinese community. Increases in intensity of land use and the purchasing power of the Chinese had increased habitat loss, crop damage and hunting pressure. Efforts to enforce conservation regulations were increasing. Four national parks and one nature reserve covered over 8% of Taiwan.

Relatively high numbers of tigers were reported from part of the Tai-Nguyen Plateau in Vietnam south of Da Nang by Vladimir Sokolov and German Kuznetsov of the USSR Institute of Evolutionary Animal Morphology and Ecology. Fresh tracks of 9-11 tigers were found over 10 km on either side of the River Kon in December 1983. The tiger density was thought to be associated with a high density of ungulates and with the ousting of tigers from adjacent areas by extensive logging and direct persecution.

The symposium was organised by the American Society of Mammalogists and the Mammalogical Society of China. IUCN and WWF were among the sponsors.

---

### Snow Leopard “Common” in Pakistan’s Khunjerab National Park

Snow leopard *Panthera uncia*, as well as its prey species blue sheep *Pseudois nayaur* and ibex *Capra ibex sibirica*, is common in the Khunjerab National Park on Pakistan's border with China, according to a report by Norwegian game biologist Per Wegge.

Wegge stated: "With a good prey base in the relatively dense populations of ibex and blue sheep – added by the high numbers of domestic stock – and optimum habitat conditions, it would not be surprising if the park contains some of the densest populations of snow leopard in Asia".

In a report on a survey in October/November 1988 on behalf of IUCN, Wegge said that none of these species was threatened by hunting or habitat deterioration inside the park. There is extensive grazing by domestic stock in northern and southeastern parts of the park which may have led to some local range degradation, but Wegge states that negative effects on wildlife are probably insignificant. Firewood collection, particularly at higher elevations during summer stock herding has affected vegetation and might, together with livestock grazing, trigger erosion in the vicinity of summer settlements.

Wegge estimated that about 10 per cent of domestic stock, mainly goats and sheep, were taken by snow leopards, especially in winter and early spring. Despite this he did not find evidence of intensive persecution by local people.

The Marco Polo sheep *Ovis ammon poli*, for whose protection the park was established in 1975, is becoming extinct because of illegal hunting, mainly on the Chinese side of the border and other intolerable disturbance by humans, says Wegge.

He has recommended various measures to improve protection of the sheep, and has proposed that the park should be enlarged and restructured into a multipurpose conservation areas with a core area free of hunting and grazing; a buffer "Protected Area", where grazing but not hunting would be permitted; and a buffer "Hunting Area" managed for trophy hunting, but where grazing would be allowed.

Khunjerab is one of the highest parks in the world, with more than half its estimated 2,270 km² above 4,000 m and an altitudinal range from 3,200 m to over 6,000 m. It borders the Taxkorgan Wildlife Reserve in China and Wegge said a joint effort by Pakistan and China might produce a "Peace Park" which would promote international relations as well as providing protection of a large, fragile environment with unique ecological quality."

(Wegge, Per, 1988, Assessment of Khunjerab National Park and Environs, Pakistan (Survey 16 October-17 November 1988), ms submitted to IUCN, Switzerland.)
**Snow Leopards**

Trophy hunters failed to shoot any of the five designated livestock-raiding snow leopards in Mongolia last year, according to Bertrand des Cleres of the International Council for Game Conservation and Wildlife.

Under the programme begun in 1986 a quota of five snow leopards, which had to be confirmed stock raiders, was made available to hunters. The fee payable for each snow leopard killed was fixed at US$11,200, or US$7,840 if the animals was wounded. The proceeds had to be channelled to livestock owners.

The International Herald Tribune reported on 27 January that snow leopard hunting was no longer permitted, but this could not be confirmed at the time of going to press.

According to des Cleres there are a minimum 2,000 snow leopards in Mongolia, but David Mallon, who has carried out surveys, puts the figure at under 1,000.

---

**Outwit Hunters**

---

**Snow Leopard Studbook**

There were 378 (194.184) snow leopards in captivity at the end of 1984, according to the latest studbook produced by Leif Blomqvist of Helsinki Zoo.

The total includes snow leopards in Chinese zoos for the first time.

During 1985 35 litters were born – 22 in North America; seven in Europe; four in the USSR; one in Australia; and one in China. Of the 78 cubs (36.33.9) mortality was 48.7%. Blomqvist speculates that the high cub mortality might be due to the North American Species Survival Programme (SSP), which has restricted the number of breeding animals in order to prevent an explosion of captive stock. Under-represented lines have been selected by using animals with poor breeding results instead of “safe” breeders. Citing a breeding success of 78% in North America in 1983 compared with 41% in 1985, Blomqvist expresses the opinion that the North American programme is able to experiment with its breeding potential. Some lines are over-represented in the stock and their future breeding should be diminished in order to make room for other under-represented and often poorer breeders to reproduce. (*International Pedigree Book of Snow Leopards, Vol. 5, Helsinki Zoo 1988*)

---

**Snow Leopard Conference in Alma Ata**

An international conference on snow leopards will be held in Alma Ata, capital of the Kazakh Republic of the USSR, from 2-7 October 1989. The conference, sponsored by the Alma Ata Zoological Garden, will focus primarily on captive management of snow leopards. Those interested in attending should contact The Director, Alma-Atinsky Zoo Park, Alma Ata 7, Klevernaya ul. 166, Kazakh SSR, 480007 USSR, or Dr Leif Blomqvist, Helsinki Zoo, 00570 Helsinki 57, Finland.

If the conference takes place, it is hoped to have an associated meeting of the Cat Specialist Group, especially to meet our Soviet colleagues, possibly in Moscow, before or after the Alma Ata conference.

---

**Leopards in Turkey**

Leopards have been sighted in recent years in southwestern Turkey, according to a report from a professional guide.

The leopards would be the Anatolian subspecies *Panthera pardus tulliana*, which is critically endangered.

The guide, Vedat Palendoken, states that people had seen leopards on the Dilek peninsula, which points to the Greek island of Samos. South of the Dilek hunters reported seeing two or three leopards around Mugla and north of Marmaris. Most leopards are found near Hakkari, near the border with Iraq, where 8-10 are seen every year. One hunter said he had seen a black leopard. Palendoken says that he cannot vouch for the reports but they appeared to be serious.

The report was made available to the Cat Group by Jeffrey R. Short, Jr, who knows Turkey well. He says that Palendoken visits almost all parts of Turkey, except for Hakkari, which is also known as Kurdistan and has been closed to visitors for many years.

---

**Leopard Prey in Panda Areas**

Leopards in the Wolong Panda Reserve in China's Sichuan Province do not prey much on the giant panda, and red panda appears to be only a minor component of leopard diet, according to Donald G. Reid of the Department of Biological Sciences, University of Calgary, Canada, and Wang Wei of the Chinese Ministry of Forestry.

They report that although Schaller *et al.* (1985) found that leopards preyed on young age-classes of giant panda *Ailutopoda melanoleuca* in Wolong, judging by analysis of droppings, no traces of giant panda were found in droppings from 1985-87. The red panda *Ailurus fulgens* was a minor component during this period.

Tufted deer *Elaphodus cephalophus*, which were the most frequently identified prey in 1981-1983, was replaced by bamboo rat *Rhizomyus sinense* as the most frequent prey—it had not been recorded in 1981-1983. The authors suggest that the shift to bamboo rat might reflect diminishing availability of the deer, perhaps because of poaching. However, the relative proportions of the two species did not change markedly from 1985 through 1987. At least one leopard appeared to take both
species. It was thought there might have been an increasing population of bamboo rats, for which there was no empirical evidence.

Other important leopard prey were musk deer *Moschus berezovski*, takin *Budorcas taxicolor* and pheasants, of which the most common were Temminck's tragopan *Tragopan tem-

**Leopard Conservation in South Africa’s Cape Province**

The Chief Directorate of Nature and Environmental Conservation of Cape Province in South Africa has launched a programme aimed "to reduce the conflict between leopard conservation and stock-farming to the point where few leopards have to be killed".

The programme follows studies by Peter Norton of the leopard situation. He reported that leopards, once widely distributed over most of Cape Province, have been virtually eradicated in most areas. They survive in the rugged mountains of southern and southwestern Cape, the broken veld along the lower Orange River and the Kalahari Gemsbok National Park.

The Directorate has now published a booklet aimed at cooperation in saving the leopard with farmers, who have persecuted leopards because they attack livestock, despite their controlling influence on dassies and baboons. Records of permits to kill stock raiders, indicate an average of 620 livestock taken a year, and 26 leopards killed.

The Directorate calls for conservation of a continuous population of leopards, estimated at a few hundreds in the Cape Mountains. It recommends good protection in core "Leopard Conservation Areas" where there would be as little hunting as possible. But in surrounding areas numbers could be reduced "if necessary" as long as individuals move occasionally from one core area to another. Most leopard home ranges overlap private land and so farmers have to be involved.

The Directorate comments: "It is clear that most farmers do not want the leopard exterminated completely; they merely want to reduce losses."

Compensation for stock losses is dismissed on the grounds of legal implications and experience with similar programmes overseas. It is accepted that problem leopards must be killed as translocation is not considered a viable solution on the basis of experience in Cape Province and Kenya.

Leopard proof fences might be erected in some areas, but it is considered impractical and undesirable to isolate all mountain reserves.

The Directorate suggests that some private land might be purchased to consolidate reserve boundaries; barriers to leopard movements erected in sensitive areas; farming practices on mountain land changed to those more compatible with leopard conservation; supervision of stock grazing in mountain veld improved; and natural leopard prey animals, such as small antelope, encouraged.

The Directorate stresses that its policy is: 'Help the farmers to help themselves'.

**World Record Jaguars Claimed in Bolivian Pantanal**

Two jaguars with the largest skulls recorded were shot in the Bolivian Pantanal in March/April 1988, according to Brazilian safari organiser Tony de Almeida. In a special newsletter Almeida said that he had been able to take hunters to a remote region of the Bolivian Pantanal, where an isolated rancher "had for years been suffering the depredations of jaguars."

"In the present floods, most of his cattle which survived the waters were congregated on the last remaining pieces of high ground, where they were literally being besieged by jaguars."

A Spanish hunter, Enrique Tintoré, shot a jaguar which Almeida says would have topped the 21 inch mark had it not been damaged at the rear by a bullet. The skull width was 8 12/16 inches, and the length when the pieces were put together was 12 inches making a total of 20 12/16 inches.

In April German hunter Knut Bellinger shot "a blockheaded brute" (Almeida's description) which measured 20 11/16 inches, according to Don R. Platt, chief of measurements for Safari Club International. This is claimed as the world record, as the skull of Tintoré's victim could not be properly measured because of the damage.

Almeida says in his newsletter: "Jaguar hunters being shy of publicity nowadays, we keep our circulars for some really extraordinary events."

**Plan to Radio-Track Jaguar in Venezuela**

Rafael Hoogesteijn plans to radio-collar and release a jaguar captured in the coastal area in the llanos, the vast plains north of the Orinoco.

He says the jaguar, which had been in a zoo cage for a year, has been taken to the El Frio ranch, which covers some 100,000 ha dedicated to wildlife conservation, and put in a 1,000 ha enclosure where it is fed with two live capybara a week, as well as feral donkey meat. Hoogesteijn says it is planned to radio-collared and released. He is investigating.
Favourable Factors for Genetic Future of Siberian Tigers in the Wild

The Siberian tiger Panthera tigris altaica can exist without the threat of inbreeding depression at lower numbers than the Indian tiger P. t. tigris because of differences in its social organization and sexual interactions, states Soviet biologist Anatoly Bragin.

He declares that low prey densities and seasonal fluctuations in their numbers preclude the development of territory among Siberian tigers, explaining that: "Defence of food resources under these conditions would seem to be uneconomical and the sharing of ranges among like-sexed tigers suggests that territoriality, in the sense of an exclusive area, is not rigidly imposed."

However, he states that the Siberian tiger preserves the same elements of territorial behaviour as the Indian tiger.

(Siberian tigers in the USSR have been reported as number 350-400, although some Soviet biologists believe the number may be in the lower 200s).

Bragin, of the Far East Science Centre, Pacific Institute of Geography, tracked tigers by pugmarks in snow for a total of 494 km in two areas of Sikhote-Alin, north of Vladivostock, in 1984-85. He found that the travel routes of male tigers completely overlapped and also overlapped those of females. Although sub-dominant males avoided dominant individuals, food and oestrus females were easily accessible to the subordinate male, even while the dominant male was in transit. Both males' associations with the same female during suspected recurrent heat periods were observed at different times.

Although tigresses also shared considerable common ground, each female had an exclusive core area within her home range, which was not used by other females. Interactions between females seemed to be based on mutual avoidance.

Bragin notes that although wild ungulates, especially Cerividae, show reasonable diversity in Sikhote Alin the total biomass is considerably lower than in parks in India and Nepal.

Bragin used pugmark recognition to identify 25 adult and 20 young in a northern zone of 3,934 km²; and 29 adult and 24 young in a southern zone covering 9,590 km². The same routes were used at different times by several tigers, and roads and trails played an important part in movements.

Examples of males killing small cubs were found, but Bragin states that his data do not suggest that it is a male reproductive strategy.

Bragin says reports from the north of the Primorye (Maritime) Territory indicate the existence of relatively stable social groups of tigers, and he recalls that "tiger herds" of 7-13 individuals were reported in the Soviet Far East when tigers were more numerous. In 1981 tracks of 5-7 mainly young tigers moving in the same direction were found in the Sikhote Alin Reserve.

Bragin argues that the consequence of overlapping home ranges of individuals of the same sex and of the resulting change in demographic population structure is the decrease in the reproductive rate of the Siberian in comparison with Indian tiger.

"The lowering of the reproductive rate must probably be considered the most important adaptation of the species to the environmental conditions in the periphery of the geographic range, where the total carrying capacity for large mammals is much decreased," he says.

Bragin explains the relatively 2-4 times higher ratio of males to females in Siberian compared with Indian tigers as due to the death of female cubs, which fail to get sufficient share of kills.

He concludes: "In the Siberian tiger, as compared with the Indian subspecies, the effect of a relatively large number of breeding males as per the same number of females is a significant decrease in the minimum number required to reach a genetically effective population size. This means that, due to the established type of the social organization and sexual interactions between individuals, the Amur tiger can exist without the threat of inbreeding depression at lower population numbers than the Bengal tiger."

(Bragin, Anatoly P. 1986. Population Characteristics and Social-Spatial Patterns of the Tiger Panthera tigris on the Eastern Macroslope of the Sikhote-Alin Mountain Range, USSR, Pacific Institute of Geography of the Far East, USSR Academy of Sciences, Vladivostok. Available in English)

WWF Funds for South China Tiger Survey

Report on a Visit to China by Peter Jackson,
Chairman, IUCN/SSC Cat Specialist Group
(25 July-25 August 1988)

The World Wide Fund for Nature (WWF) has agreed to provide funds for a status survey of the critically-endangered South China tiger Panthera tigris amoensis. The decision follows a visit to China in August 1988 by Peter Jackson, Chairman of the Cat Specialist Group, when he discussed the situation with Chinese colleagues and others interested, as well as visiting present and former tiger habitats.

In a report on his visit he wrote:

As a result of an invitation to present a paper on the status of Asian felids at a Symposium of Asian Pacific Mammalogy 26-30 July 1988 I was able to meet specialists from various Chinese organisations interested in tiger conservation during my stay in Beijing and later in Chongqing (Sichuan Province), and in Hunan and Guangdong Provinces.

Through the good offices of Dr Xiang Peilun, Director of Parks and Gardens of Chongqing Municipality and a member of the Cat Group, I was the guest of the Chongqing Municipality. Dr Xiang was formerly Director of Chongqing Zoo, which has eight South China tigers, and where the tigers have bred successfully for many years. He has already been charged with establishing the pedigrees of all the 33 presumed pure South China tigers in Chinese zoos for a studbook. A 20 ha site has been acquired outside the city, where a captive breeding facility is to be established.

Dr Xiang took me to the nature reserve of Simian Shan in the mountains on the border of Sichuan and Guizhou Provin-
ces. Tigers were present there until about 20 years ago. I found intensive agricultural development in parts of the reserve, but elsewhere the forest appeared to be in good condition, and I was told there were plenty of deer and pig. Dr Xiang envisages the possibility of reintroducing tigers in an undisturbed 300 km² area sometime in the future. Habitat in the adjoining Fanjingshan Reserve in neighbouring Guizhou Province was said to be even better than in Simianshan.

I then went to Hunan Province, where the Forest Bureau took me to the Tao Yuan Dong reserve in the Jinning Mountains on Hunan's eastern border with Jiangxi Province, and to Mang Shan reserve in the Nanling Mountains on the southern border with Guangdong Province. A few tigers are reported to survive in these mountains, which are part of a continuous chain on the eastern and southern borders of Hunan. The reserves cover only 10,000 ha and 20,000 ha, and are therefore totally inadequate to maintain a viable tiger population, but it appeared that good habitat existed throughout the mountains over an area of more than 2,000 km². I saw sign of sambar and wild pig and was told they were plentiful, along with tufted deer and musk deer. Logging, except for some thinning, has been stopped and small-scale hydro-electric plants are being built to provide power and thus relieve pressure on the forests for fuel. I believe that this would be a key area on which to concentrate in efforts to save the South China tiger.

On my way back to Hong Kong I stopped briefly in Guangzhou, where I was shown South China tigers in the zoo. Tigers survive in the Ba Bao Shan reserve in northern Guangdong, adjoining Hunan. WWF Hong Kong kindly provided me with a detailed report on the area following visits by associates.

The threat to the South China Tiger

1. **Hunting.** The South China tiger was still numerous in the 1950s, but, unfortunately, it was declared a pest and deliberately hunted down. Over 3,000 skins were collected up to 1980. It was given nominal protection in 1977, but already the population had been reduced to fewer than 100, and decline continued. Although the authorities claim that there is no hunting, knowledgable persons in China say it is poached, especially for bones, which are used in medicine, and for gourmet meat.

2. **Loss of habitat.** The traditional range of the South China tiger in south-central and eastern China is also the most heavily populated part of the country. Inevitably agriculture has encroached on natural areas—the tiger had already been driven from the lowlands a century ago, and in recent decades development has pushed into valleys and up mountainsides. Few areas remain which are large enough to sustain a viable tiger population.

Why Save the South China Tiger?

1. The South China tiger is a flagship species. Conservation would be a major contribution to the maintenance of biological diversity in mountain areas within the tiger's range because it can only be successful if large areas of forest habitat with thriving populations of prey and other animals are maintained. This has been well-illustrated by the success of Project Tiger in India. The concept of biological diversity is easily grasped by the general public through the use of such a clear example.

2. The South China tiger has for centuries played an important role in Chinese culture, as attested by paintings, sculpture and poetry. It is one of the 12 animals of the years in the Chinese calendar.

3. The South China tiger could be the fourth subspecies of tiger lost in the past 50 years. The Bali tiger *Panthera tigris balica* disappeared in the 1940s; the Caspian tiger *P. t. virgata* in the 1970s; and the Javan tiger *P. t. sondaica* in the 1980s. The Sumatran tiger *P. t. sumatrae* is declining through loss of habitat and hunting. The Siberian tiger *P. t. altaica* (also called the Northeast China tiger) numbers about 300, mostly in the Soviet Far East. The Indian tiger *P. t. tigris*, of which about 5,000 exist, and the Indo-Chinese tiger *P. t. corbetti*, which may total around 2,000, are the only subspecies surviving in reasonable numbers.

**Recommendations**

1. **Conservation in the wild.** The situation of the South China tiger in the wild is critical because so few animals survive. However, this should not discourage conservation efforts. In India the Asian lion *Panthera leo persica* and the great one-horned rhinoceros *Rhinoceros unicornis* were both reduced to almost equally small numbers in the early years of this century, but there are now populations of 230 and 1,400 respectively. Equally few were the southern serrated-edged rhinoceros *Ceratotherium simum* surviving in Natal around 1890, but the world population is now over 3,000. Tiger populations in reserves in India have increased under the auspices of Project Tiger in the past 15 years.

2. **Captive Breeding.** The basis exists for a captive breeding programme, centred at Chongqing, but local funds are sparse, and there is little equipment and expertise available. Dr U.S. Seal, Chairman of the IUCN/SSC Captive Breeding Group, who attended a Captive Breeding Symposium in Hangzhou 25-28 October, has agreed to cooperate in the programme for the South China tiger. It is intended that the programme should be confined to China, and that offspring should in due course replace tigers of mixed or unknown parentage in zoos.

**Conclusion**

The key to successful conservation of the South China tiger lies in protection — of the tiger, of its habitat, and of prey populations. It would therefore be a major contribution to the maintenance of biological diversity. The use of such a well-known and admired animal as a flagship species makes biological diversity intelligible to the general public. Project Tiger is a clear example. It not only directly conserved the tiger in its complex ecosystem, but aroused public awareness of nature conservation in India and elsewhere.

The South China tiger deserves every effort to save it from imminent extinction. The basis exists for conservation of the few survivors in the wild, and also for a captive breeding programme, which, even if progeny could not be reintroduced in the wild, would serve to publicise the whole issue of saving the subspecies. If lost it would mean that half of the eight recognized tiger subspecies had become extinct in the past 50 years — two of them in the past 15 years.

Motivation is of crucial importance if conservation of the tiger is to be successful. The success of Project Tiger in India was due especially to the personal commitment of the late Prime Minister Indira Gandhi to conservation. Every effort must be made to obtain a directive from the highest level possible in China that the South China tiger must be saved because it is an important part of China's natural and cultural heritage.
Bangladesh Tigers

A undated press cutting dateline Dhaka, Bangladesh, reports that tiger hunter Pachadi Gazi had just killed his 56th tiger, which was said to have claimed 50 lives in the Sundarbans mangrove forest.

The report said the Forest Department had been trying to catch the tiger for three years because of its attacks on woodcutters and others working deep in the jungle. In the end it was decided to shoot it.

The report said 70 people were believed to have been killed by tigers in the Sundarbans in 18 months “causing panic among the woodcutters, honey collectors, fishermen and boatmen”.

It went on to state that the large number of deaths had led to an increase in illegal hunting, not only to kill tigers which were terrorizing an area but also because large bounties were offered by trophy hunters for skins. Tiger skins were said to be in great demand, fetching US$60, a fortune for the average Bangladeshi. The skins were usually smuggled out, mainly to Singapore, the report said.

Tigers Lost in Floods

Two tigers are known to have drowned in this year’s monsoon floods in Kaziranga National Park in northeast India, according to Ram Lakhani Singh, Director of Project Tiger, India. In addition, 46 rhinos, including 29 young, and two elephant calves were also lost. Kaziranga is a marshy area on the south bank of the Brahmaputra, one of the great rivers draining the Tibetan plateau and the eastern Himalayas.

The destructive cyclonic storm which struck the Sundarbans in Bangladesh and India in October must have killed many animals, including tigers, which live in the mangroves fringing the Bay of Bengal, but tides and the density of the forest make it impossible to gauge the toll.

New Tiger Reserve in South India

India has established its 17th special tiger reserve at Kalakad-Mundurthurai in the extreme southern of the country.

The reserve, in the State of Tamilnadu, covers 800 km², of which 571 km² has been designated as the core area. Wildlife there, apart from tigers, includes leopard, lion-tailed macaque Macaca silenus, bonnet macaque Macaca radiata, Nilgiri langur Presbytis johni, elephant Elephas maximus, and gaur Bos gaurus.

The total area in Project Tiger’s 17 reserves totals 26,643 km², which 11,308 km² are core areas.

International Tiger Studbook 1988

At the end of 1987 a total of 633 (282.351) Siberian tigers Panthera tigris altaica were living in captivity, according to the 1988 edition of the International Tiger Studbook prepared by Siegfried Seifert of Leipzig Zoo in the German Democratic Republic.

Sumatran tigers P. t. sumatrae numbered 145 (64.81); Bengal tigers P. t. tigris 42 (19.23); and South China tigers P. t. amoyensis 51 (33.18).

Seifert points out that the World Breeding Plan for the Tiger prepared by Ulysses Seal and confirmed by the International Union of Directors of Zoological Gardens proposed a zoo population of 500 of various species. He said that 105 zoos outside North America had agreed to include about 300 Siberian, 100 Sumatran and 60 other species in the plan.

Meanwhile, Seal, who visited China in October 1988, has agreed to assist Chinese zoos to implement a breeding programme for the South China tiger. Because of upkeep costs and limitations on space tigers of other subspecies or of mixed race may be replaced in zoos as the programme progresses.

Seifert complains of increasing carelessness among tiger breeders in sending their annual reports, thus making the work of the Studbook Keeper difficult.

Uncovering the Secret Life of the Tiger

TIGER MOON by Fiona and Mel Sunquist, University of Chicago Press, 1988

Twenty years ago the tiger seemed to heading for extinction while its life in the wild was largely a mystery, partly penetrated by George Schaller in his pioneering studies in Kanha National Park in India in the 1960s. But the 1969 IUCN General Assembly in Delhi proved a turning point for the tiger.

As a result of the universal concern expressed there about the rapid decline of the Indian tiger conservation action was last launched. The World Wildlife Fund (WWF) launched Operation Tiger to raise funds, and the Indian Government implemented a national tiger conservation programme, Project Tiger.

In neighbouring Nepal some Royal Hunting Reserves still had good tiger populations. It was in one such reserve in the Himalayan foothills, now the Royal Chitwan National Park, that the Smithsonian Institution of Washington DC began a longterm study of the ecology of the tiger in 1973 that lasted until 1980, with monitoring of tigers still continuing.

One of the first wildlife biologists to go to Chitwan was Mel Sunquist, fresh from a discouragingly fruitless search for snow leopard in Pakistan with Schaller. Chitwan was better and Sunquist worked for two years as part of a rolling team of American and Nepalese scientists and aides. His was one of several Ph.Ds produced by the Tiger Ecology Project. At Sunquist’s side was his wife, Fiona, and they have now written a vivid account of the adventure of learning about tiger life. An experienced writer on wildlife, They expertly describe the excitement of catching tigers, and the pressing routine of tracking them and analysing data. But they also evoke the joys and trials of living in the jungle, of burning heat and bitter cold according to the season; of the elephants, each with a distinct personality, con-
vying them through towering grasses safe from irritated rhinos; and of the problems local people have living in close proximity to tigers and wild animals which eat their crops.

Tiger Moon presents the general reader with an excellent summary of what was learnt of the life of Chitwan’s tigers. Twentyfive tigers, as well as leopards and some other species, were radio-collared in the course of the project, and this enabled Sunquist and his colleagues to keep track of movements and associations; to locate kills; and to find cubs and subsequently follow sub-adults when they left their mothers to make their own lives.

Among the terrifying experiences was when Kirti Man Tamang, Sunquist’s colleague, was dragged from a tree by an angry tigress defending her cubs. The riding elephants bolted, one falling and pitching Sunquist to the ground, stunning him. Eventually one elephant was persuaded to approach the spot where Tamang had fallen. He was safe, although badly mauled. The tigress did not attack him as he lay on the ground. Sad to say, the cubs died when villagers set fire to the grass where they were hidden.

Farmers for Cheetah

The Wildlife Producers’ Association of Zimbabwe has proposed that hunting of cheetah should be permitted in areas where they have been proved to be a problem, and it should be included in the trophy schedule for safari operators.

Several ranchers said they suffered high cattle losses from cheetah and one estimated his loss at ZW$6,000 (US$3,000) in one year. It was stated that cheetah were hard to find during the day, but were active at night, and, since they only eat fresh meat, one cheetah could kill up to three animals in one week.

As an alternative to hunting, it was suggested that cheetah be captured and translocated to areas in Zimbabwe where they are rare, and that a captive breeding programme be initiated. However, one farmer said that the situation was so acute in some areas that farmers were already illegally killing cheetah and hiding the carcasses.

Viv Wilson, Chairman of the Parks and Wildlife Board and a member of the Cat Specialist Group, commented: “I have completed my two-year study of the cheetah in the southeast lowveld, Midlands and the whole of the northwest part of Zimbabwe and a report has been submitted to the Parks Board. We are still awaiting the second part of the survey, which was being carried out by Gary Sharp in the southeast lowveld.”

Wilson pointed out that ranchers experiencing losses could always obtain a licence to shoot cheetah. He said it was his personal opinion that certain areas should be set aside where the cheetah would be protected at all cost, for example, in Hwange National Park and the Matetsi area. However, he believed that in the lowveld, where ranchers were experiencing very real problems, a very few cheetah could be shot on licence by high-paying, foreign-currency-earning international hunters.

Wilson said the Parks and Wildlife Board and the Department of National Parks and Wildlife Management would meet within the coming months to consider the status of all endangered species in Zimbabwe.

(The Conservationist, Bulletin of The Zimbabwe National Conservation Trust, No.48/49.)

Hunting in Zimbabwe

Record of a White Cheetah

The Moghul Emperor of India, Jahangir, recorded having a white cheetah presented to him in 1608.

In an article in the Journal of the Bombay Natural History Society, Divyabhanusinh, a leading expert on the history of the cheetah Acinonyx jubatus venaticus in India, states that in his memoirs, Tuzuk-i-Jahangiri, the Emperor said that in the third year of his reign: “Raja Bir Singh Deo brought a white cheetah to show me. Although other sorts of creatures, both birds and beasts have white varieties...I had never seen a white cheetah. Its spots, which are (usually) black, were of a blue colour, and the whiteness of the body also inclined to bluishness.”

Divyabhanusinh indicates that his researches and discussions with Persian scholars (the memoirs were written in Persian, which was the Moghul Court language) substantiate the record.

Jahangir also recorded the first known successful mating of captive cheetahs in the 1,000 kept by his father, Akbar. He wrote in the eighth year of his reign (1613 AD): “It is an established fact that cheetahs in unaccustomed places do not pair off with a female, for my revered father once collected together 1,000 cheetahs. He was very desirous that they should pair, but this in no way came off. He had many times coupled male and female cheetahs together in gardens, but there, too, it did not come off. At this time a male cheetah, having slipped its collar, went to a female and paired with it, and after two and half months three young ones were born and grew up. This has been recorded because it appeared strange.”

Divyabhanusinh notes that this is the only record in history of trained cheetahs breeding, and the only record in captivity until Philadelphia Zoo, USA, bred African cheetahs in 1956.

(See also Divyabhanusinh 1987. Record of two unique observations of the Indian cheetah in Tuzuk-i-Jahangiri. J. Bombay Natural History Society Vol.84, No.2, p.269)

Cat News No. 10, January 1989
Hong Kong Gourmets Frustrated

A restaurant at Shenzhen, China's Special Economic Zone on its border with Hong Kong, which was serving Hong Kong gourmets with tiger meat and other wildlife dishes has been put out of business.

Originally established as a staff canteen for the Honey Lake Resort Hotel, the fame of the menu attracted Hong Kong gourmets and word reached WWF Hong Kong that four clouded leopards were being kept there. WWF organized a visit by a Shenzhen official, who found four clouded leopard skins, 16 pythons, 38 macaques, 42 owls, 60 pangolins and more than 30 giant salamanders in what was called "The China Entertainment Area Zoo". In April Shenzhen officials found only nine pythons, 10 macaques, one owl, eight pangolins and five giant salamanders alive. The clouded leopard skins had gone.

The owner, Mr Lam Wai Hang of Hong Kong, who was also known as "Big Nose", claimed that it was a proper zoo and it was only when animals fell ill and had to be destroyed that they were used for cooking. He said that tigers had been there, but they had been properly purchased and had then fallen sick, one dying naturally and another being destroyed to save it from suffering.

The officials found freezers full of wildlife carcasses, which were seized together with one tiger skin. Money was confiscated and the restaurant boarded up. Since then Lam has been fined RMB10,000 (US$2,650) for running a business catering for non-staff of the hotel without a proper licence. Investigations are continuing to collect evidence for prosecution for the illegal killing of wild animals on the premises.

Lam is still running his staff restaurant, but a visitor saw only a few pigeons.

( Wildlife Bulletin of WWF Hong Kong Vol. VI, No. 2, June 1988.)

Seized Skins Burnt in Brazil

Skins of jaguar, puma and ocelot were among thousands of skins ordered to be burned in July 1988 to prevent their sale. The skins were seized from poachers by agents of the Forestry police.

(TRAFFIC Bulletin Vol. 10 Nos 1/2 quoting the Daily Telegraph (UK) 20/7/88.)

World Conservation Monitoring Centre

The IUCN Conservation Monitoring Centre in Cambridge, England, which produced the well-known Red Data Books of Endangered Species, has been transformed into the "World Conservation Monitoring Centre" sponsored equally by IUCN, World Wide Fund for Nature (WWF), and the United Nations Environment Programme (UNEP).

The primary aim of WCMC is to support conservation and sustainable development by collecting and providing reliable data on biological diversity and the distribution and status of habitats and species.

The specialist groups of the IUCN Species Survival Commission have an important role as collaborators with the WCMC in providing information about the species within their competence and can expect cooperation from the Centre in return.

The WCMC will:

1. develop a global data base with five main components:
   • records of the distribution and status of habitats and of sites with special biological interest;
   • records of the location and boundaries of protected areas, the nature and effectiveness of the protection they afford, and the main habitats and species they contain; and
   • records of the scale and nature of use of wild species and of trade patterns involving them;

2. extend this global database by establishing special subsidiary components which are of particular importance to partner or collaborating institutions;

3. support these databases with bibliographic references and a selective register of other holders of the relevant information and of relevant conservation programmes;

4. link these databases with other international information systems;

5. provide information to partner organisations, aid agencies and other data users who need it as an input to their own assessments in areas for which they have primary responsibilities or particular expertise; and

6. provide analyses and assessments of the data available and their implications for the formulation of conservation policy.

Vo Quy Awarded WWF Gold Medal

Professor Vo Quy, Dean of Biology at the University of Hanoi, and a member of the Cat Group, has been awarded WWF's highest honour, the Gold Medal.

The award is in recognition of outstanding leadership in pioneering environmental conservation and education in Indo-China.

Vo Quy, Founder-Chairman of Vietnam's Natural Resources and Environmental Protection Centre, was the architect of an agreement between Laos, Kampuchea and Vietnam for international cooperation in protecting rare and endangered migratory species, and the establishment of transfrontier reserves, or "Peace Parks", on their shared borders.
Ranthambhore Foundation Works to Save Famous Tiger Reserve

Ranthambhore Tiger Reserve in India's Rajasthan State is world-famous for its spectacular tigers and great natural beauty. Several television films have brought Ranthambhore into the homes of millions all over the world. But Ranthambhore is the epitome of a natural reserve under almost irresistible pressure from surrounding human settlements and activities.

"I fear that the tiger has a real problem to survive the next decade against the tremendous pressure of people and livestock," says Valmik Thapar, an Indian naturalist who has documented Ranthambhore's tigers in two acclaimed books written in association with Fatch Singh Rathore, the Field Director for more than 10 years. Thapar has launched a Ranthambhore Foundation "for the creation of a natural integration between man, nature and wildlife".

"Over the years our prime concern in Ranthambhore has been the protection of wildlife, particularly the tiger," he says. "Our experience has shown how man's desperate need for survival, and abuse of dwindling natural resources, cannot be separated from the protection of forests and natural areas for ecological reasons. Because man and cattle have created a severe pressure on wilderness areas like Ranthambore in their endless search for grazing pastures and forest produce, the Foundation, in its first phase, is tackling many of the problems faced by forest communities."

The Foundation plans to start a rural mobile medical service from April 1989, concentrating on women's welfare, child immunisations, and first aid in villages around the reserve. The project will be administered by the Parivar Seva Sansthya, a part of Marie Stopes International. A problematic village is being surveyed to assess the viability of an integrated alternative energy scheme to make the village self-sufficient and without need of forest resources. This will involve biogas plants, alternative fodder, smokeless stoves and solar heating systems.

Nature camps are to be run for village children, who will also be taken on visits to the reserve. Another proposal is to establish a nursery to provide the input to regreen village and grazing lands just outside the fringes of the reserve.

"If you spent time in the forest the deterioration is obvious," says Thapar. "The only chance of its survival lies in the hands of the people who live around."

Those interested in contacting the Ranthambhore Foundation (a registered non-profit making society) can write to Valmik Thapar, 19 Kautiya Marg, Chanakyapuri, New Delhi 110 021, India.

Ranthambhore Foundation

for the creation of a natural integration between man, nature and wildlife.
Cat Specialist Group

January 1989

Ahlborn, Gary, 199 Mountain Avenue, Sonoma CA 95476, USA
Alwis, Lyn de, 30 Hotel Road, Mount Lavinia, Colombo, Sri Lanka
Artois, Marc, Centre Nat. d'Etude sur la Rage, Domaine de Fixerecourt, B.P. 9, 54220 Malzeville, France
Belden, Florida Panther Recovery Unit, Florida Game and Fish Commission, 4005 South Main Street, Gainesville, FL 32601, USA
Bertram, Brian, The Wildfowl Trust, Slimbridge, Glos. GL2 7BT, GB
Biswas, Biswamoy, c/o Zoological Survey of India, Indian Museum, 27 J. L. Nehru Road, Calcutta 700 016, India
Blomqvist, Leif, Helsinki Zoo, 00570 Helsinki, Finland
Bolshova, Lydija, Admin. Nature Reserves, State Agro-Industrial Committee, Orlikov per.1/11, 107139 Moscow, USSR
Bothma, J. du P., Eugene Marais Chair of Wildlife Management, University of Pretoria, Pretoria 0002, South Africa
Breitenmoser, Urs, Ebnit, 3780 Gstaad, Switzerland
Brockelman, Warren Y., Faculty of Science, Mahidol University, Rama VI Road, Bangkok 10400, Thailand
Caro, Tim, Evolution and Human Behavior Prg, University of Michigan, 1524 Rackham Building, Ann Arbor, MI 48109-1070, USA
Crawshaw, Peter G., 118 Newins Ziegler Hall, Univ. of Florida, Gainesville FL 32611, USA
Dao Van Tien, Laboratory of Zoology, 19 Le Thanh Tong Street, P.215 Khu Thanh Cong, Hanoi, Vietnam
Delibes, Miguel, Estacion Biologica de Donana, Apt. 1056 Pabellon del Peru, Avenida de Maria Luisa s/n, 41080 Seville, Spain
Eisenberg, John, Dept of Natural Sciences, The Florida State Museum, University of Florida, Gainesville FL 32611, USA
Foose, Tom, AAZPA Conservation Coordinator, ISIS Office, Minnesota Zoological Garden, Apple Valley MN 55124, USA
Foreman, Gail, Int. Society for Endangered Cats, 4638 Winterset Drive, Columbus OH43220, USA
Fox, Joseph, Department of Ecology, University of Tromso, P.O. Box 3085 Guleng, N-9001 Tromso, Norway
Frame, George, 136 Spruce Av., Westville, New Jersey 08093, USA
Frame, George, c/o Assn. de Developpement, de l'Elevage de la Faune ADEFA, B.P. 5570, Ouagadougou, Burkina Faso
Franklin, William L., Dept of Animal Ecology, 124 Sci II, Iowa State University, Ames, Iowa 50011, USA
Freeman, Helen, President, Internat. Snow Leopard Trust, 16463 Southeast Thirtyfifth St, Bellevue, Washington 98008, USA
Hamilton, Patrick, Wildlife Cons. and Management HQ, P.O. Box 40241, Nairobi, Kenya
Hemmer, Helmut, Anemonenweg 18, D-6500 Mainz-Ebersheim, Germany (Fed. Rep.)
Hoogestijn, Rafael, Apartado 3083, El Trigal, Valencia, Edo. Carabobo, Venezuela
Hornocker, Maurice, Unit Leader Coop. Wildlife Research Unit, University of Idaho, Moscow Idaho 83843, USA
Jackson, Peter, Haut Verger, Route des Macherettes, 1172 Bougy-Villars, Switzerland
Jackson, Rodney, California Institute, Environmental Studies, 910 K Street, Davis CA 95616, USA
Johnsingh, A.T., Wildlife Institute of India, P.O. New Forest, Dehra Dun 248 006, India
Johnson, Kurt A., Office of Scientific Authority, US Fish and Wildlife Service, 18th and C Streets NW, Washington DC 20240, USA
Joslin, Paul, 16219 Seventieth Place West, Edmonds Washington 98020, USA
Karanth, K. Ullas, Centre for Wildlife Studies, 499 Kuvempu Nagar, Mysore 570 023, India
Khan, M.A. Reza, Curator of Birds, Al Ain Zoo and Aquarium, P.O. Box 1204, AL AIN, Abu Dhabi (UAE)
Khan, M.A. Reza, c/o M. A. Kalam, 1st Floor, Dhanashi, House 25, Road no. 1, Dhaka 5, Bangladesh
Khan, Mohammed, Director General, Wildlife and National Parks, Km 10 Jalan Cheras, 50664 Kuala Lumpur, Malaysia
Konecny, Michael, Dept of Zoology, University of Florida, Gainesville FL 32611, USA
Korkishko, Victor G., Inst. of Biology and Pedology, Far East Science Centre, Academy of Sciences of USSR, Vladivostok 690022, USSR
Lewis, John, Director, John Ball Zoological Gardens, 201 Market St. SW, Grand Rapids MI 49503, USA
Leyhausen, Paul, Auf dem Dreschs, D-5227 Windeck 1/Halscheid, Germany (Fed. Rep.)
Lu Houji, Department of Biology, Animal Ecology Research Group, East China Normal University, Shanghai 20062, China
MacDougall, Charles, Tiger Tops, P.O. Box 242, Kathmandu, Nepal
Maruska, Ed, Executive Director, Cincinnati Zoo, 3400 Vine Street, Cincinnati Ohio 45220, USA
Melquist, Wayne E., Idaho Dept of Fish and Game, 600 S. Walnut, P.O. Box 25, Boise Idaho 83707, USA
Mendelssohn, Heinrich, University of Tel Aviv, Faculty of Life Sciences, P.O. Box 39040, Ramat Aviv 69978, Tel Aviv, Israel
Miller, S. Douglas, Vice-President, Wildlife Research, National Wildlife Federation, 8925 Leesburg Pike, Vienna Virginia 22180, USA
Mishra, Hemanta R., Secretary, King Mahendra Trust, Babar Mahal, P.O. Box 3712, Kathmandu, Nepal
Morsbach, Dieter, Directorate, Nature Conservation, Private Bag 13360, Windhoek 9000, SW Africa
Navarro L., Daniel, Centro Investigaciones, Apartado postal 886, Cancon Q.R., Quintana Roo, Mexico
Norton, Peter M., Chief Directorate Nature and, Environmental Conservation, P.O. Box 456, Kimberley 8300, South Africa
O'Brien, Stephen J., Laboratory Viral Carcinogenesis, National Cancer Research Inst., Bldg. 560, Room II-85, Frederick MD 21701, USA
Ono, Yuiti, Department of Biology, Faculty of Science, Kyushu University 33, Fukuoka 812, Japan
Packer, Craig, Dept of Ecology and Behavioural, 108 Zoology Building, 318 Church Street SE, Minneapolis MN 55455, USA
Panwar, Hemendra S., Director, Wildlife Institute of India, P.O. New Forest, Dehra Dun 248 006, India
Peters, Gustav, Zoologisches Forschungsinstitut, Adenauerallee 150-164, D-5300 Bonn 1, Germany (Fed. Rep.)
Quigley, Howard, Wildlife Research Institute, P.O. 3246, University Stn, Moscow Idaho 83843, USA
Rabinovich, Jorge, Uruguay 263 (of.64), 1015 Buenos Aires, Argentina
Rabinowitz, Alan, Wildlife Conservation Internatl, New York Zoological Society, Bronx Zoo, Bronx NY 10460, USA
Ranjitsinh, M. K., Jt.Sec.(WL), Min. of Environment, B2 B Block (4th Floor), CGO Complex, New Delhi 110 003, India
Ranjitsinh, M.K., CII/43 Bapanagar, New Delhi, India
Rashid, M. A., Ketan Appartments, Flat 103, Fatehganj Camp, Baroda 390 002, India
Rathore, Fateh Singh, MA Forestry Farm, Ranthambhor Road, Sawai Madhopur, Rajasthan, India
Roberts, Tom, Cae Gors, Rhososenfinhir, near Pentraeth, Anglesey LL75 8YU, GB
Roelke, Melody E, Florida Game and Fish Commission, 4005 South Main, Gainesville, FL 32601, USA
Sankhala, Kailash S., 21 Duleshwar Garden, Jaipur 302001, India
Santiapillai, Charles, 12 Jalan Taman Malabar, Bogor, Indonesia
Santiapillai, Charles, WWF Indonesia Project, P.O. Box 133, Bogor 16001, Indonesia
Sanyal, Pranabes, Ass.Chief Conservator of Forests, P-16 Indian Exchange Place Exn, New CIT Building, 3rd Floor, Calcutta 700 073, India
Seal, Ulysses S., Veterans Administration Hospital, 54th Street & 48th Avenue South, Minneapolis MN 55417, USA
Seidensticker, John C., National Zoological Park, Smithsonian Institution, Washington, DC 20008, USA
Seiffert, Siegfried, Dr Kurt Fischer Strasse 29, Zoologische Garten, 7010 Leipzig, Germany (Dem. Rep.)
Shoemaker, Alan H., Riverbanks Zoological Park, P.O. Box 1060, Columbia SC 29210-1060, USA
Singh, Arjan, Tiger Haven, P.O. Pallia, 262 902 Kheri District, Uttar Pradesh, India
Singh, Ram Lakhan, Director, Project Tiger, Ministry of Environment, Bikaner House, New Delhi 110 011, India
Smith, James L. David, Dept of Fisheries & Wildlife, 200 Hodson Hall, 1980 Folwell Ave, St Paul MN 55108, USA
Stuart, Chris, P.O. Box 96, Nieuwoudtville 8180, South Africa
Sumardja, Effendy, Directorate of National Parks, and Recreation Forests, 100 Jalan Ir. H. Juanda, Bogor 16123, Indonesia
Sunquist, Melvin E., Dept of Natural Sciences, Florida State Museum, University of Florida, Gainesville FL 32611, USA
Suwanakorn, Phairot, Dy. Director General, Royal Forestry Department, Phaholyothin Road, Bangkok, Bangkok 10900, Thailand
Tan Bangjie, Beijing Zoo, Beijing, China
Tello, Jose Lobao, c/o AGRE/SECA, Mr P. Bligny, B.P. 1957, Bangui, Central African Rep.
Tewes, Michael, Director, Feline Research Centre, Texas A&I University, Campus Box 218, Kingsville Texas 78363, USA
Thapar, Valmik, 19 Kauliyya Marg, New Delhi 110 021, India
Tilson, Ronald L., Assistant Director, Minnesota Zoological Garden, 12101 Johnny Cake Ridge Road, Apple Valley, MI 55124, USA
Vaughan, Chris, Escuela de Ciencias Ambientales, Universidad Nacional Heredia, Costa Rica
Villalba, Juan, TRAFFIC Sud America, Carlos Roxlo 1496/301, Montevideo, Uruguay
Visser, John, P.O. Box 20, Camps Bay 8040, South Africa
Vo Quy, Faculty of Biology, University of Hanoi, 19 Le Thanh Ton, Hanoi, Vietnam
Walker, Clive, Lapalala Wilderness Sanctuary, P.O. Box 645, Bedfordview 2008, South Africa
Wilson, Vivian J., Chipangali Wildlife Trust, P.O. Box 1057, Bulawayo, Zimbabwe
Wotschikowsky, Ulrich, Wildbiologische Gesellschaft, Postfach 170, D-8103 Oberammergau, Germany (Fed. Rep.)
Wright MBE, Anne, Tollygunge Club Ltd, 120 Deshapran Sasmal Road, Calcutta 700033, India
Xiang Peilun, Municipal Bureau of Parks, 180 Eling Street, Chongqing 630 014, China
Yasuma, Shigeki, 4-16-20 Owada, c/o PUSREHUT, Univ. Mulawarman, Kampus G.Keula, Samarinda, Kalimantan-Timur
Zhyvotchenko, Victor, Hunting and Hunting Service Mag., Sadovaya-Spasskaya 18, 107807 GSP Moscow B-53, USSR
CAT NEWS 10  
January 1989

Contents

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Editorial</td>
<td>1</td>
</tr>
<tr>
<td>Felids Cats in Israel</td>
<td>2</td>
</tr>
<tr>
<td>New Cat Discovered</td>
<td>4</td>
</tr>
<tr>
<td>Scavenging by Fishing Cat</td>
<td>5</td>
</tr>
<tr>
<td>Melanism in Jungle Cat</td>
<td>5</td>
</tr>
<tr>
<td>Study of Wildcat-Domestic Cat Hybridisation in Scotland</td>
<td>5</td>
</tr>
<tr>
<td>Fierce Controversy over Lynx in Switzerland</td>
<td>5</td>
</tr>
<tr>
<td>New Park in Spain Will Help Pardel Lynx</td>
<td>5</td>
</tr>
<tr>
<td>A Lynx “Terrorises” Leningrad</td>
<td>6</td>
</tr>
<tr>
<td>Endangered Cats in Chile</td>
<td>6</td>
</tr>
<tr>
<td>Hunting and Conservation in Ecuadorian Amazonia</td>
<td>6</td>
</tr>
<tr>
<td>Symposium of Asian Pacific Mammalogy</td>
<td>6</td>
</tr>
<tr>
<td>Snow Leopard “Common” in Pakistan’s Khunjerab National Park</td>
<td>7</td>
</tr>
<tr>
<td>Snow Leopards Outwit Hunters</td>
<td>8</td>
</tr>
<tr>
<td>Snow Leopard Studbook</td>
<td>8</td>
</tr>
<tr>
<td>Snow Leopard Conference in Alma Ata</td>
<td>8</td>
</tr>
<tr>
<td>Leopards in Turkey</td>
<td>8</td>
</tr>
<tr>
<td>Leopard Prey in Panda Areas</td>
<td>8</td>
</tr>
<tr>
<td>Leopard Conservation in South Africa’s Cape Province</td>
<td>9</td>
</tr>
<tr>
<td>World Record Jaguars Claimed in Bolivian Pantanal</td>
<td>9</td>
</tr>
<tr>
<td>Plan to Radio-track Jaguars in Venezuela</td>
<td>9</td>
</tr>
<tr>
<td>Favourable Factors for Genetic Future of Siberian Tigers in the Wild</td>
<td>10</td>
</tr>
<tr>
<td>WWF Funds for South China Tiger Survey</td>
<td>10</td>
</tr>
<tr>
<td>Bangladesh Tigers</td>
<td>12</td>
</tr>
<tr>
<td>Tigers Lost in Floods</td>
<td>12</td>
</tr>
<tr>
<td>New Tiger Reserve in South India</td>
<td>12</td>
</tr>
<tr>
<td>International Tiger Studbook 1988</td>
<td>12</td>
</tr>
<tr>
<td>Uncovering the Secret Life of the Tiger</td>
<td>12</td>
</tr>
<tr>
<td>Farmers for Cheetah Hunting in Zimbabwe</td>
<td>13</td>
</tr>
<tr>
<td>Record of a White Cheetah</td>
<td>13</td>
</tr>
<tr>
<td>Hong Kong Gourmets Frustrated</td>
<td>14</td>
</tr>
<tr>
<td>Seized Skins Burnt in Brazil</td>
<td>14</td>
</tr>
<tr>
<td>World Conservation Monitoring Centre</td>
<td>14</td>
</tr>
<tr>
<td>Vo Quy Awarded WWF Gold Medal</td>
<td>14</td>
</tr>
<tr>
<td>Ranthambhore Foundation Works To Save Famous Tiger Reserve</td>
<td>15</td>
</tr>
<tr>
<td>Cat Specialist Group Members</td>
<td>16</td>
</tr>
</tbody>
</table>

CAT NEWS is the newsletter of the Cat Specialist Group of the IUCN Species Survival Commission. It is published twice a year, and is available to subscribers to FRIENDS OF THE CAT GROUP. The current subscription is $20 p.a., payable to The Chairman, IUCN/SSC Cat Specialist Group, World Conservation Centre, 1196 Gland, Switzerland.

Contributions, papers, press cuttings etc. about the wild cats are welcome.

CAT NEWS is produced with financial assistance from WWF and Friends of the Cat Group.