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## VANISHING CATS OF RAJASTHAN

Vishnu Sharma  
 Conservator of Forests Wildlife, Rajasthan  
 Kailash Sankhala  
 Ex-Chief Wildlife Warden, Rajasthan

### Summary

The present study of the ecological status of the lesser cats of Rajasthan is a rapid survey. It gives broad indications of the position of fishing cats, caracals, desert cats and jungle cats. Less than ten fishing cats have been reported from Bharatpur. This is the only locality where fishing cats have been seen. Caracals are known to occur locally in Sariska in Alwar, Ranthambore in Sawaimadhopur, Pali and Doongargarh in Bikaner district. Their number is estimated to be less than fifty. Desert cats are thinly distributed over entire desert range receiving less than 60 cm rainfall. Their number may not be more than 500. Jungle cats are still found all over the State except in extremely arid zone receiving less than 20 cms of rainfall. An intelligent estimate places their population around 2000. The study reveals that the Indian hunting cheetah did not exist in Rajasthan even during the last century when ecological conditions were more favourable than they are even today in Africa. The cats are important in the ecological chain specially in controlling the population of rodent pests. Strict protection, wide publicity and reintroduction of the cats has been suggested. The highlight of the paper are the authentic photographic evidence of the cats in their environments.

## VANISHING CATS OF RAJASTHAN

### INTRODUCTION:

Lesser cats are becoming lesser and lesser all over their habitat in the Indian sub-continent. But their depredation is alarming in the arid lands of Rajasthan. The critical harsh climatic conditions, vulnerable openness of the woodland and scrubland, surging of a roaring trade in cat skins, vastness as well as location of the State on the Indo-Pak border, highly susceptible to international smuggling, have been the main factors responsible for their destruction during the last two decades, especially after (1968) enforcing a total ban on export of leopard and tiger skins. Our ignorance, not knowing if civets are cats, and our apathy towards them (the desert cat was not classed as protected species in the Wildlife Protection Act 1972, and the jungle cat did not figure anywhere in the laws) are unpardonable acts of irresponsibilities. More has already been lost. Still the remaining less of the lesser cats can be saved.

### HABITAT:

The Indian Thar Desert is almost equally divided between the Sind and Bhawalpur districts of Pakistan on the western side and the western Rajasthan on the eastern side. The latter constitutes about 2,30,000 hect. comprising of wind-blown sands, fixed and shifting sand dunes, inter sand-dunal areas and rocky outcrops. The last forms only 7-8% of the area. The climate of the region is characterised by extremes of temperature ranging from 48.9°C (Shri Ganga-nagar) in May to 2.7°C (Churu) in January. Cold winds during winter increase the chill-factor at night and the hot winds (Loos) during summer days increase desiccating effects. They also create sand storms which reduce the light intensity. Rainfall at places is lower than 100 mm and that too is erratic. Though clouds may overcast the sky for over 20 days but rainy days are less than 10 -all any time in July and August. The region is drained by



the Luni and its tributaries into the Runn of Kutch. Most of the sandy region has closed drainage and form shallow saline inland lakes. On drying, these lakes form flat saline plains.

The sandy tract supports Phoq (*Calligonum polygonoides*), Kair (*Capparis decidua*), Kheenp (*Leptadenia pyrotechnica*), Tephrosia falciformis, aak (*Calotropis procera*), bui (*Aerra tomentosa*), *A. pseudotomentosa*; extensive growth of sewan grass (*Lasiurus indicus*) is conspicuous. Scattered trees of jal (*Salvadora persica*) and kherjri (*Prosopis cineraria*) and ber (*Zizyphus nummularia*), scattered trees and shrubs of gugal (*Commiphora mukul*), kumath (*Acacia senegal*), kair (*Capparis decidua*), thor (*Euphorbia caducifolia*) occur in the hilly outcrops.

Only woodland is the Aravalli range from Mount Abu to Khetri and Alwar through Sikar, Jaipur districts. Dhok (*Anogeissus pendula*), salar (*Boswellis serrata*), godal (*Lansea coromandelica*) form the principal tree growth on the hills and ber and dhak (*Butea monosperma*) and ronj (*Acacia leucophloea*) and babul (*Acacia nilotica*) grow-in the valley bottoms and flat lands.

Map I shows the distribution of forests, forest types, National Parks, Sanctuaries and closed areas in the State of Rajasthan.

The region is rich in antelope population, especially nilgai (*Boselaphus tragocamelus*), black buck (*antelope cervi capra rajputana*) and chinkara (*Gazella gazella bennetti*). Both common hare (*Lepus nigricollis*) and the desert hare (*Lepus nigriollis*) are common. Colonies of both gerbils (*Gerbillus gleadowi* and *G. nanusindus*) are found in sandy plains interspersed with dunes. *Rattus gleadowi* is found in gravelly patches in sandy areas. Population of grey partridge (*Francolinus pondicerianus*), quail (*Turnix suscitator*), Peafowl (*Pavo cristatus*), sand grouse (*Pterocles exustus*), ring dove (*Streptopelia decaocto*), pigeon (*Columba livia*), sparrow (*Passer domesticus*) is conspicuous. The region is the last home of the Great Indian Bustard (*Choriotis nigriceps*) and wintering region of the Imperial sandgrouse (*Pterocles orientalis*) and Hubara bustard (*Chamydotis undulata*). Colonies of spiny tail lizard (*Uromastix hardwickii*) are found throughout the habitat in low lying areas having hard clay of Calcarious strata. Indian sand-fish (*Ophiomorus tridactylus*), Indian fringe-toed sand lizard (*Acanthodactylus c. cantoris*), sand boa (*Eryz Johnii*), sand geckos (*Stenodactylus orientalis*) inhabit the area. Immediately after the rains, population of insects, especially the dung beetles, explodes. They actively carry the organic biomass to lower strata of the desert soil and return the manure to enrich the desert soil. In turn they serve as staple food for reptiles, birds, foxes and cats.

The topography in the south-east of the Aravalli range is hilly as well as flat plains (which are at places heavily ravined). Land is fertile and more hospitable due to favourable rainfall ranging from 600 to 1100 mm. The land-use pattern consists of irrigated fields, both by flow and lift irrigation, and rolling hills of the southern Rajasthan, which were once well wooded but are now denuded and support only scattered tree growth. Pure forests of dhok (*Anogeissus pendula*) dominate the vegetation in the well protected dry areas. Occasionally, they are replaced by mixed miscellaneous dry forests and bamboo brakes. Low quality teak (*Tectona grandis*) with its usual associates like *Terminalia tomentosa*, *Amogeissus latifolia*, etc, are found in southern Rajasthan. The area is drained by the Chambal, East Banas, Rooparal, Banganga, Gambhiri, Mahi, Sabarmati and west Banas rivers. The last three drain in the Gulf of Cambay and the former in the Bay of Bengal by joining the Jamuna. Full advantage of the rain water has been taken to dam every possible river and its tributary. The principal water impounding structures are series of dams on the Chambal, Jaisamand on Sabarmati, Bajaj Sagar on the Mahi, Baretha on the Gambhiri, Ramgarh on the Banganga in Jaipur and Ajan Bund and Keoladeo in Bharatpur.

The land which remains unirrigated is mostly wasteland broken with ravine formations. Scattered trees of babool (*Acacia nilotica*) and rong (*A. leucophloea*) grow in the denuded sandy tract.

The remnant woodlands which are preserved as sanctuaries and National Parks support tigers and leopards. Sambar, chital and wild boar support the predators. Partridge, quail, peafowl and doves and pigeons have been wiped out by local poaching. On the whole, the wildlife of the area has either disappeared (Banswara, Doongarpur, part of Udaipur) or is on the way out. The hare population is still struggling to survive. Extensive fish contracts of the dams compete with the fish eating predators.

### **VANISHING CATS:**

Authors have taken an ecological stock checking of the Indian desert cat (*Felis silvestris ornata*), jungle cat (*Felis chaus*), fishing cat (*Felis viverrina*), caracal (*Felis carcal*) and investigations into the existence of hunting cheetah (*Acinonyx jubatus*) in Rajasthan. The princely State Jaipur was once known for training hunting cheetah for sport. Although data has been collected about the status of the common leopard (*Panthera pardus*) and the Indian tiger (*Panthera tigris*), but the same has been withheld in order to highlight the situation of the lesser cats.

The data presented here is from the dated observations made by the authors during the course of their tours, both at night and during day throughout the State in last two decades. The data was collected more systematically during the last five years. Intensive hunt for the information was made after the first informal meeting of the Cat Group of the IUCN held on November 23 1983, at New Delhi. Authors' personal encounters have been few and therefore there is dearth of direct information. But interviews with professional hunters, jogies, kalbelias, moghias, shikaries and 'sportsmen' have yielded dependable information. In surprise raids conducted by the Flying Squads of the Wildlife staff of Rajasthan, fresh raw skins of desert cats, jungle cats and caracal were recovered. These skins were collected by the professional hunters, not far from the places of seizures. This also serves as direct evidence of the presence of the species in the locality. Meetings with aggrieved parties whose poultry had been attacked by jungle cats and who have encountered the predators have also been considered direct information. The valuable piece of information about non-existence of the hunting cheetah in Jaipur State has been discovered from Chuttan Khan, Chotte Khan, both claiming to be young lads of the Cheetah Training school of Jaipur at the end of the last century. Authentic breeding records of Jaipur Zoo strongly supplement the stray field observations of the hunters and the authors.

**OBSERVATIONS:**

Personal observations of the authors:

**I. DESERT CAT**

- Species No.: 1.  
 Name of locality: Gadra Road, near Barmer.  
 Date and time: December 1975, 6 PM  
 Habitat type: Fixed sand dunes, vegetated by phog, seven; common fox also sighted about 600 metres away.  
 Activity: Looking for gerbills in bushes.  
 Observer: Sankhala  
 Remark: -
- Species No.: 2.  
 Name of locality: Mukam: adjoining Nagaur and Bikaner districts.  
 Date and time: February 1979, 7 AM  
 Habitat type: Fixed sand dunes; vegetation phog, kumat; rich population of doves, pigeons, partridges, peafowls and gerbills. Population of chinkara is rich. A pack of wolves and a few common foxes and desert foxes also seen. The area is strictly protected by Bishnois as this is the place where Jameswarji meditated, preached for years. Finally he rests in peace here.  
 Activity: Basking in winter morning sun, a metre above its burrow.  
 Observer: Sankhala.  
 Remark: Photograph taken.
- Species No.: 3.  
 Name of locality: Near Doongargarh on N.H.W. 11.  
 Date and time: 2.1.1979. 9PM.  
 Habitat type: Sand dunes; Phog and Arua tomentosa; rich population of gerbills and sanda.  
 Activity: Caught in the headlights of the car on road.  
 Observer: Sankhala.
- Species No.: 4.  
 Name of locality: Sudasari, Jaisalmer  
 Date and time: Nov. 1982, 7.30 AM  
 Habitat type: Closed area. Open grassland (sewan), loosely packed sand over-laid on Magra land; Kair is common tree. Rich population of gerbills. A desert fox was also sighted.  
 Observer: Searching for prey.  
 Remark: Sankhala.
- Species No.: 5.  
 Name of locality: Kukas, Jaipur.  
 Date and time: December 1983.  
 Habitat type: Bank of a dry sand stream with Tephrosia falciformis and Zizyphus nummularia. Area rich in gerbill and lizard population. Here, porcupine, jackal, hyaena and jungle cat also present in the area.  
 Activity: Sitting in early morning sun.  
 Observer: Sharma.  
 Remark: Photograph taken.

- Species No.: 6.  
 Name of locality: Chhoti Bagru.  
 Date and time: December 1983.  
 Habitat type: Stabilised sand dune with scattered clumps of *Saccarum munja* grass. Area again rich in gerbill population and birds like partridges and sparrows.  
 Activity: Sitting by side of a moonj clump.  
 Observer: Sharma.  
 Remark: Photograph taken.
- Species No.: 7.  
 Name of locality: Chhoti Bagru.  
 Date and time: January, 1984.  
 Habitat type: Stabilised sand dune with scattered clumps of *Saccarum munja* grass. Area again rich in gerbill population and birds like partridges and sparrows.  
 Activity: Pub marks of 3 kittens and mother seen.  
 Observer: Sharma.  
 Remark: Photograph taken.
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#### **RECOVERY OF SKINS OF DESERT CATS:**

- Species No.: 1.  
 Name of locality: Jaisalmer.  
 Date and time: December 1980.  
 Habitat type: Extreme desert region.  
 Activity: 23 skins of desert cats recovered in a surprise raid conducted by the desert National Park protection staff.  
 Observer: -  
 Remark: Photograph of skins taken.
- Species No.: 2.  
 Name of locality: Pali.  
 Date and time: February 19, 1980.  
 Habitat type: Desert region of sandy plains and rocky outcrops of Eranpura granite a part of the Aravallis.  
 Activity: Surprise raid conducted on trader's godown 5102 raw skins recovered. They included three skins of desert cat, none of jungle cat, five of caracal, one of wolf, 128 of jackal and rest all of monitor lizard.  
 Observer: -  
 Remark: Photograph reproduced.
- Species No.: 3.  
 Name of locality: Phalodi, North of Jodhpur District.  
 Date and time: Nov-Dec. 1983.  
 Habitat type: Open flat land with fixed and mobile sand dunes.  
 Activity: Out of 1500 skins seized, by Customs Dept., Government of India, there were 224 of jungle cats and 107 of desert cats.  
 Observer: -  
 Remark: Photograph taken.

**INTERVIEWS:**

- Name of the person interviewed: Sri Bhanwari Nath (40 yrs), Sapera, Jalpur.  
 Area of Operation: Jaipur, Nagaur, Bikaner.  
 Information given: He killed many\* cats which he calls Chhoti Billi, in the desert region of the districts. According to him, the cat lives in sandy area only and never enters habitation. Price of the desert cat skin is about four rupees per piece.
- Interview by: Sharma.  
 Remark: \*Not willing to admit the number killed by him.
- Person interviewed: Sri Sultan Nath, s/O. Chiman Nath (51 yrs), Kalbelia.  
 Area of Operation: Doongargarh of Bikaner district and Sikar district.  
 Information given: He informed of killing of desert cats, caracal and jungle cats. He also saw four kittens of desert cat in Doongargarh, sometime near (in October) Dewali price for one skin is Rs.5/. per piece.
- Interview by: Sharma.  
 Remark: -
- Person interviewed: Sri Gulam Nath, (60 yrs), Jogi of Diggi, Malpura.  
 Area of Operation: Bikaner District, Jaipur District.  
 Information given: He had killed innumerable desert cats. He had seen kitten of desert cat in March-April. Price of skin depends on size. It generally ranges from Rs.4 to 5 per skin.
- Interview by: Sharma.  
 Remark: -
- Person interviewed: Sri Srawan (36 yrs), Nath.  
 Area of Operation: Nagaur, Sikar and Jaipur.  
 Information given: Reports seeing of four kittens of desert cat in December of about 1 1/2 months old in S. munja clump. He also saw vomiting of food by the mother inside the burrow to feed its kittens. The desert cat digs its own burrow. In rocky area, the cat lives in clumps of Euphorbia or under rocks. Its choice of habitat is sandy area. He saw a camalion only half eaten by a desert cat.
- Interview by: Sharma  
 Remark: -

**II. JUNGLE CAT**

- Species No.: 1.  
 Name of locality: Sariska-Kalighati.  
 Date and time: December 1970, 9.30 PM.

- Habitat type: Well-wooded forests of Sariska Sanctuary in the outer Aravalis. Rich population of peafowl, partridge hare.
- Activity: Regularly came to drink water and also to feed on the left over of the tiger's kill preying on rats, partridges, peafowl.
- Observer: Sankhala.
- Remark: Photograph.
- Species No.: 2.
- Name of locality: On the plateau of Ranthambhor near Bagola.
- Date and time: June, 1971.
- Habitat type: Open forest - *Anogeissus pendula*.
- Activity: Preying on field rats.
- Observer: Sankhala.
- Remark: Photograph.
- Species No.: 3.
- Name of locality: Anatpura.
- Date and time: May, 1974.
- Habitat type: A grass patch in front of forest house.
- Activity: Preying on field rats and came to drink water.
- Observer: Sankhala.
- Remark: Photograph.
- Species No.: 4.
- Name of locality: Anatpura.
- Date and time: May 1976, 11 AM.
- Habitat type: A grasspatch in front of forest house.
- Activity: A jungle cat arrived during hot day to drink water.
- Observer: Sankhala.
- Remark: Photograph.
- Species No.: 5.
- Name of locality: Slopka, Sariska.
- Date and time: March, 1970.
- Habitat type: Well-wooded forests of Sariska Sancturay.
- Activity: Sitting tom.
- Observer: Sankhala.
- Remark: Photograph.
- Species No.: 6.
- Name of locality: Kalighati water hole.
- Date and time: December 1983
- Habitat type: Well-wooded forests of Sariska Sanctuary.
- Activity: Mother and one kitten seen sitting near road.
- Observer: Sankhala.
- Remark: Photograph.
- Species No.: 7.
- Name of locality: Kalighati.
- Date and time: January 1984.
- Habitat type: Well-wooded forests of Sariska Sanctuary.
- Activity: Mother and one kitten seen sitting near road.
- Observer: Sankhala and Sharma.
- Remark: Photograph.
- Species No.: 8.
- Name of locality: Near Culvert on way to Kalighati.
- Date and time: March 1984, 2PM.

- Habitat type: Well-wooded forests of Sariska Sanctuary.  
 Activity: Jungle cat sighted crossing the road.  
 Observer: Sankhala.  
 Remark: This was regularly seen near the road.  
 Species No.: 9.  
 Name of locality: Ranthambhor.  
 Date and time: November 1983.  
 Habitat type: Wooded forests of Ranthambhor Tiger Reserve.  
 Activity: Stalking for prey (partridge).  
 Observer: Sharma  
 Remark: -  
 Species No.: 10.  
 Name of locality: Kamolder old cremation ground on Lakarda Road.  
 Date and time: December 1983.  
 Habitat type: Wooded forests of Ranthambhor tiger Reserve.  
 Activity: Walking on jeep trail.  
 Observer: Sharma.  
 Remark: -  
 Species No.: 11.  
 Name of locality: Tar road near Singhdwar.  
 Date and time: January 1984.  
 Habitat type: Wooded area.  
 Activity: Seen in night drive; caught in headlight.  
 Observer: Sharma.  
 Remark: -  
 Species No.: 12.  
 Name of locality: Khanapura Keoladeo National Park.  
 Date and time: January 1984.  
 Habitat type: Thick grass (Khas grass) area.  
 Activity: Large jungle Sankhala cat sighted while it briskly crossed the road.  
 Remark: -  
 Species No.: 13.  
 Name of locality: Dudu in Jaipur District.  
 Date and time: November 1983.  
 Habitat type: Open broken ravinous area, rich population of hare, field rats, partridges and doves & lizards.  
 Activity: Two jungle Sharma cats sighted. They were fighting with paws.  
 Remark: Photograph taken.  
 Species No.: 14.  
 Name of locality: Jaipur-Ajmer Road near Bhakrota village on NHW 8.  
 Date and time: Jan. 1984 night drive.  
 Habitat type: Open land with agricultural fields.  
 Activity: Jungle cat run over by a fast heavy vehicle.  
 Observer: Sharma.  
 Remark: Photograph taken.  
 Species No.: 15.  
 Name of locality: Kukas, Jaipur.  
 Date and time: January, 1984, night drive.  
 Habitat type: Hilly area with denuded hills. Euphorbia clumps. In valley fixed sand. Rich population of gerbills, hare, partridge and doves.

Activity: Caught up in the head light of the jeep.  
 Observer: Sharma.  
 Remark: Photograph taken.  
 Species No.: 16.  
 Name of locality: Kukas near Jaipur.  
 Date and time: March 1984.  
 Habitat type: In the wheat fields under harvested hay stocks of wheat.  
 Activity: Searching for prey.  
 Observer: Sharma.  
 Remark: -

**OTHER EVIDENCE:**

Species No.: 1.  
 Name of locality: Chhoti Bagru, Jaipur District.  
 Date and time: Nov./Dec., 1983.  
 Habitat type: Fixed sandy area with Munj as cover.  
 Activity: Footprints seen.  
 Observer: Sharma.  
 Remark: Photograph.  
 Species No.: 2.  
 Name of locality: Kukas.  
 Date and time: March 1984.  
 Habitat type: Hilly area, sandy wasteland included between two hills. Rich population of gerbills.  
 Activity: Jungle cat entered its burrow. Footprints of 3-4 jungle cats seen in the same area.  
 Observer: Sharma.  
 Remark: Photograph.

**SKINS RECOVERED:**

Species No.: 3.  
 Name of locality: Pali.  
 Date and time: -  
 Habitat type: -  
 Activity: Nine skins of Jungle cats recovered.  
 Observer: Sharma.  
 Remark: Photograph.  
 Species No.: 4.  
 Name of locality: Phalodi.  
 Date and time: -  
 Habitat type: -  
 Activity: 224 skins of jungle cats recovered.  
 Observer: Sharma.  
 Remark: Photograph.  
 Species No.: 5.  
 Name of locality: Abu Road Sirohi.  
 Date and time: 1977.  
 Habitat type: Wooded hills, over grass lands with bushes rich population of partridges, hare.  
 Activity: 24,552 skins of Jungle cats reported by a trader in his return to Chief Wildlife Warden.  
 Remark: Case Registered.

**INTERVIEWS**

- Person interviewed: Sri Bhanwari Nath (40 yrs)  
 Area of Operation: Ajmer, Nagaur, Jaipur.  
 Information given: He killed many jungle cats for sale of skins at Rs.6 each. Kitten observed by him (i) Nov.-Dec., and (ii) June-July.  
 Interview by: Sharma.  
 Remark: -
- Person interviewed: Sri Sultan Nath (51 yrs).  
 Area of Operation: Bikaner, Sikar Jaipur.  
 Information given: According to him jungle cats are found in Nahargarh degraded forest of Jaipur.  
 Interview by: Sharma.  
 Remark: -
- Person interviewed: Sri Gulam Nath (60 yrs)  
 Name of locality: Diggi Malpura in Jaipur district Bikaner and Nagaur districts.  
 Information given: Jungle cats enter in villages. They stay in wheat stacks to prey on birds and field rats.  
 Interview by: Sharma.  
 Remark: -
- Person interviewed: Sri Jaswant Singh Nathawat, Wildlife Warden Kumbhalgarh.  
 Area of Operation: Kumbhalgarh, Udaipur and Pali districts.  
 Information given: Presence of jungle cats on the fringes of forests of the Sanctuary.  
 Interview by: Sharma.  
 Remark: -
- Person interviewed: Sri panney Singh Dy. Chief Wildlife Warden.  
 Area of Operation: Udaipur, Sirohi Chittorgarh.  
 Information given: Reports sighting of jungle cat in Jaisamand, Bhensrodgarh and Darrah Sanctuary.  
 Interview by: Sharma.  
 Remark: -
- Person interviewed: Sri Roop Singh, Wildlife Ranger.  
 Area of Operation: Mount Abu.  
 Information given: Reports presence of jungle cat in Mount Abu in higher ridges as well as foothills.  
 Interview by: Sharma.  
 Remark: -
- Person interviewed: Sri Bhanwar Singh, Asstt. Forester, Kalighati, Sariska.  
 Area of Operation: Kalighati, Sariska.  
 Information given: Reports about four kittens of two months old, playing every day with their mother in winter sun in Dec. 1983. Also going to waterhole to drink during day as well as night.  
 Interview by: Sharma.  
 Remark: -

Person interviewed: Sri Angadlal, Forester, Doli Jodhpur.  
 Area of Operation: Doli, Jodhpur and Dhawa of Barmer distt.  
 Information given: Reports raiding poultry in his hut. Also informs of the cat feeding on sanda.  
 Remark: Sharma.

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### III. FISHING CAT

Species No.: 1.  
 Name of locality: Sitaram Babaki Diggi; Keoladeo National Park.  
 Date and time: May 1983, evening.  
 Habitat type: Wooded wetland.  
 Activity: Entering into a Capparis bush.  
 Observer: Sharma.  
 Remark: -

Species No.: 2.  
 Name of locality: Mallah.  
 Date and time: Mid.July 1980.  
 Habitat type: Large pool of deep water; thickly grown Acacia trees.  
 Activity: Fishing on cat-fish, more than 1 Kg.  
 Observer: Bholu Khan.  
 Remark: -

Species No.: 3.  
 Name of locality: Mallah.  
 Date and time: End of July 1980.  
 Habitat type: On bank.  
 Activity: Sitting on a tree.  
 Observer: Bholu Khan.

Species No.: 4.  
 Name of locality: Mallah  
 Date and time: April 1980  
 Habitat type: Deep-water pool bank over green Acacia tree embankment covered with Hins and Jal bushes.  
 Activity: Playing with a kitten.  
 Observer: Bholu Khan.  
 Remark: -

Species No.: 5.  
 Name of locality: Kadam Kunj.  
 Date and time: September 1982.  
 Habitat type: Hins & Jal bush.  
 Activity: Catching frogs, toad.  
 Observer: Bholu Khan.  
 Remark: -

Species No.: 6.  
 Name of locality: Kadam Kunj.  
 Date and time: -  
 Habitat type: Thick overgrowth of trees, extensive water surface.  
 Activity: Two adult cats fighting.  
 Observer: Bholu Khan.  
 Remark: According to Bholu Khan, cats are not shy of torch light or jeep headlights. They boldly walk towards the source of light. The fishing cat preys on splashed fish. It also jumps into water to catch fish. Sightings are more during April and July.

Species No.: 7.  
 Name of locality: Selised.  
 Date and time: 1977.  
 Habitat type: Large irrigation reservoir and fish breeding centre of Fisheries Deptt.  
 Activity: Sighted at night.  
 Observer: Roop Singh.  
 Remark: -

NOTE: Not a single skin of a fishing cat was recovered in any of the raids from skin traders.

#### IV. CARACAL

Species No.: 1.  
 Name of locality: Ajabgarh.  
 Date and time: December 1956.  
 Habitat type: Grassy scrub land with scattered Khair and Dhok trees; Partridge, peacock and hare.  
 Activity: Relaxing in Sankhala grass.

Species No.: 5.  
 Name of locality: Buja, Sariska.  
 Date and time: Mid May 1979.  
 Habitat type: Grassy plain with Zizyphus trees and shrubs; Partridge, peacock and hare.  
 Activity: Spotted in search light, while searching for prey.  
 Observer: Sharma.  
 Remark: -

Species No.: 6.  
 Name of locality: Pali.  
 Date and time: 1980.  
 Habitat type: Sandy plain area with rocky outcrops; scrub jungle; hare, partridge and peafowl.  
 Activity: 5 skins recovered.  
 Observer: A.C.F. Pali.  
 Remark: Killed for skin trade.

Species No.: 7.  
 Name of locality: Tehla, Sariska.  
 Date and time: December 1982.  
 Habitat type: Anogeissus pendula and open scrub land with Zizyphus and Grewia bushes; partridge, peacock, hare.  
 Activity: Dead Caracal collected.  
 Observer: Range Officer Tehla.  
 Remark: Natural death.

Species No.: 8.  
 Name of locality: Bodal, Ranthambhor.  
 Date and time: May, 1983.  
 Habitat type: Anogeissus pendula forest and agriculture in open space; hare.  
 Activity: One caracal run over by a vehicle.  
 Observer: Forest Guard, Bodal.  
 Remark: -

Species No.: 9.  
 Name of locality: Semli, Ranthambhor.  
 Date and time: 11th March, 1984.  
 Habitat type: Rocky plateau with *Anogeissus pendula* trees, partridge, peafowl and hare.  
 Activity: Standing in cover; surprised by jeep.  
 Observer: Fateh Singh.

### INTERVIEWS:

Person interviewed: Chhote Khan & Chhuttan Khan, Mohalla Chhetawalan Ghat Gate, Jaipur.  
 Area of Operation: Jaipur Cheetah and Caracal Training Centre.  
 Information given: Both claim to be one hundred and one years old. Informed that caracals were very common in grass birs around Jaipur including Kukas and were caught by the shikaries-professional hunters, for training.  
 Interview by: V.D. Sharma.  
 Remark: There was a regular school for training of caracal for catching kites as a sport.

Person interviewed: Raghubir Singh, S/O Col. Kesri Singh, Narain Niwas, Jaipur.  
 Area of Operation: Jaipur district.  
 Information given: Caracal was quite common in thirties. They were depleting hare population particularly in Kukas, Audhi Ramsagar, Band Buchera. Hare was a small game mostly for pot those days and their depredation was concern of the department.  
 Interview by: -  
 Remark: -

Person interviewed: Daud Khan of Gagwana, Ajmer.  
 Area of Operation: Ajmer.  
 Information given: Saw a caracal catching a hare with lightening speed. The hare was beaten out by a shikar party from Euphorbia bush. This was in presence of six shikaries.  
 Interview by: V.D. Sharma.  
 Remark: -

Person interviewed: Sultan S/o Chimallal Kalbelia.  
 Area of Operation: Doongargarh Bikaner Distt. and Sikar district.  
 Information given: He killed caracal for skin trade.  
 Interview by: V.D. Sharma.  
 Remark: -

Person interviewed: Gulam Nath (60 yrs), Kalbelia.  
 Area of Operation: Doongargarh Bikaner Distt. and Sikar District.  
 Information given: Killed about 20 caracals in Doongargarh area and Diggi malpura rocky area. Once he caught a lactating caracal female in October.

## DISCUSSION:

The lesser cats were neither trophies nor posed any threat to man and therefore, they never attracted any attention in the past. Only sketchy information about their existence and behaviour is available. First concern for the desert region was made only in 1952 with the establishment of the Desert Afforestation Centre, Jodhpur. This was more of a programme of raising roadside plantations and patchy demonstration plots of afforestation and grassland improvement. It was only after the establishment of the Arid Zone Research Institute, Jodhpur that wild animals of the desert region attracted some attention. Still in the formative years, the concern was for rodents and their control. The wildlife of the region was still unimportant subject. The lesser cats like the desert cat, caracal and jungle cat, though effective rodent controllers were still ignored.

There are only a few references to indicate existence of these cats. Sen & Sankhala (1959) described distribution of desert cat in areas having rainfall less than 60 cms. According to them the jungle cat is not found in the desert region where rainfall is less than 30 cms. They also refer to occurrence of caracal in the forests of Ajabgarh and Sariska. According to Prakash (1975) the desert cat is distributed in the sandy tract as well as the Central Thar. He has made no mention of occurrence of the desert cat as well as the jungle cat in the rocky outcrops and hills of the desert. He has also not reported the presence of jungle cat in the extreme arid regions of Rajasthan, and made no mention of the existence of caracal in the desert region, except that a Jogi told him of killing a caracal near Bikaner (Prakash 1961). According to Tikedar (1983) jungle cat is found throughout the desert region and the desert cat throughout the State of Rajasthan including the forested region having over 60 cms rainfall. He gives the distribution of caracal throughout Rajasthan in a general statement. Sen & Sankhala (1959), Prakash (1975) and Tikedar (1983) do not report of existence of the fishing cat in Rajasthan. Fishing cat has been reported in Keoladeo Bird Sanctuary, now a National Park, by Saxena (1975). He has also reported occurrence of the leopard cat in the Sanctuary. This has not been confirmed by sighting or other evidences.

Distribution of lesser cats based on the information collected by direct observations from Gadra Road Barmar, Sudasiri Jaisalmer, Mukam and Doongargarh Bikaner, and Chhoti Bagru and Kukas Jaipur. Skins of desert cats have been seized from Jaisalmer, Phalodi and Pali townships. Interviews with four professional hunters Bhanwari Nath (4), Sultan Nath (51), Gulam Nath (60) and Sarwan Nath (36) revealed that they regularly killed desert cats in Bikaner, Doongargarh-Bikaner, Nagaur, Sikar Bir-Sikar, and Jaipur for trade. These evidences establish range of distribution of the desert cat from Jaipur to Jaisalmer and from Pali to Bikaner. It lives mostly in sandy areas where it makes its own burrow. It also inhabits rocky areas where it lives under rock or in Euphorbia clumps. The desert cat has not been reported from the forested region and the areas receiving over 60 cms of rainfall. The desert cat feeds on gerbills, lizards and birds. The cat breeds in March-April and also in November-December. Three to four kittens have been reported with mother. It regurgitates food for the kittens. It lives in association with jungle cat and desert fox without conflict.

Comparative population of this cat in western Thar desert is indicated by the ratio of desert cat skins in the bag of pelt traders. The ratio of desert cat skin to jungle cat skin in Phalodi area is 1:2 whereas it is 1:3 to 1:4 in areas of Pali district.

### **JUNGLE CAT:**

The jungle cat has been frequently sighted in Sariska, (Sankhala, Sharma, Bhanwar Singh) Keoladeo Bharatpur, (Sankhala, Sharma) Ranthambhor-Sawai Madhopur (Fateh Singh) Kukas (Sharma), Chhoti Bagru (Sharma) and Dudu (Sharma) in Jaipur district.

The cat has been seen in Dhawa (Angad lal) in Jodhpur district. Skins of freshly killed jungle cats have been seized at Pali (9), Phalodi (224) and Tonk. Interviews of Banwari Nath, Gulam Nath, Sultan Nath professional hunters reveal occurrence of jungle cats in Diggi malpura, Nahargarh in Jaipur. Reports received from wildlife staff of Rajasthan establish of the presence of jungle cat in shahbad and Darrah in Kota District, Ramgarh in Bundi district, Bhensrodgarh in Chittorgarh and Jaisamand in Udaipur District.

From the above evidences it appears that the jungle cat is widely distributed all over the State including the arid lands of Phalodi and Dawa of Jodhpur district, where it lives in association with the Indian Desert cat and the common fox. However, it has not been recorded in the extremely arid lands of western Barmer and Jaisalmer districts where rainfall is less than 20 cms.

It hunts small mammals, field rats, mice, peafowl, partridges and lizards including Spiney-tail lizards. It attacks poultry in villages. Its bold aggressive behaviour is recorded in the historic incident that occurred in the camp of Rana Pratap when he was dislodged from power and was hiding in hills of Mewar. (Tod 1829). A jungle cat attacked his daughter and carried away the only piece of bread that the starving child was holding. The situation made the valiant Rana desperate to sign an instrument of unconditional surrender. It also feeds on the leftovers of the tigers.

The cat breeds well. 3-4 kittens have been recorded in Sariska. They are playful and the mother takes full care in training them.

### **FISHING CAT:**

The evidence of presence of fishing cat is limited to only one locality Keoladeo National Park, Bharatpur (Sharma). The only person who has successfully photographed the cat in its habitat is Bholu Khan. According to him, there are more than a dozen cats in the wetland and are distributed in different localities Baba Sitaram Ki Diggi, Mallah crossing, Sapan Mori, Keoladeo and Kadam Kunj. The cat climbs trees and plunges in water from a vantage point to catch fish. The cat has been observed feeding on a large cat-fish weighing about one kg. It was also observed feeding on splashed fish and on toads and frogs. The cat is largely nocturnal. The fishing cat is breeding well in the National Park. Jaisamand, Pichola in Udaipur, Band Baretha in Bharatpur, Selised dam in Alwar district, Sardar Samand in Pali district are some of the potential areas where the cat could be found. This needs a thorough search. Skins of fishing cats have not been recovered from any of the skin traders.

**CARACAL:**

Confirmed reports of its occurrence have been received from Ranthambhor (Faheh Singh), Sariska (Sankhala, Kishan roongta, Sharma) and Pali (ACF Pali) areas only. The interview information of Sultan Kalbelia and gulam Nath (60) who have killed over 20 caracals in Sikar Bir, Sikar District (Sikar bir is now released for industrial development), Daggi Malpura jaipur and doongargarh sandy area in last few years, is reliable. Even today the region of Doongargarh supports a rich population of hare and partridges (Peter Jackson's letter to Srimati Indira Gandhi dated 10 Feb. 1983). There is a possibility of its occurrence in this area.

The evidence of caracal trainers and records of Shikar Khana of Jaipur State establish that caracal, were present in Kukas and other adjoining forests of jaipur. Since the evidence is nearly 50 years old and there has been no sighting recently, the information is only historic significance. Presence of caracal in Kukas could not be confirmed even after repeated efforts.

The caracal is, therefore, one of the rarest of all the lesser cats of Rajasthan localised to only few sites viz. Sariska, Ranthambhor, Pali, Ajmer and Doongargarh.

The caracal is an excellent predator which can even outwit the shikaries. It feeds on hare, partridges and peafowl. Kitten of 6 to 7 days old have been recorded in December as well as 2-3 days old in May. The captive caracals caught from Ajabgarh lived for 15 years.

**HUNTING CHEETAH:**

Existence of cheetah in wild in Rajasthan at any stage is doubtful. During the grand period of shikar of Maharaja Ram Singh, 1835-1880. That was the time when human population was low, extensive waste lands were teaming with black bucks and chinkara. The autocratic rule of the Maharaja gave rigid protection to all forms of wildlife. There could be no better period for the existence of the hunting cheetah in wild.

Jaipur, during early nineteenth century, was an important training centre for hunting cheetah (Starndate, 1884) and a section of the City of Jaipur is still known as Cheetawala Ka-Mohalla. The cheetah trainers, Chhuttan Khan and Chhote Khan, both centurians, are still alive with their clear memory, vividly remember that their wards used to imported from Kabul, Afghanistan and from Africa. They inform that there were no wild cheetah in the princely State of Jaipur. The Cheetah School of Jaipur continued to get support for keeping the art alive, till 1922. It trained cheetahs for Princes of Saurashtra and of other Indian States.

According to our correspondence with Maharaja of Kolhapur, a State known for Cheetah hunting during the princely order, the cheetahs were always imported from East Africa. Baroda was another State where the sport of running down black bucks had achieved perfection, but the State's hunting cheetah were always brought from Mombasa through a dealer. (Personal communication with the Maharaja of Baroda Shri Fateh Singhji Gaekwad). Among the princely states of Saurashtra, now Gujrat, Bhavanagar and Wankaner were equally famous for organising hunting of black bucks by hunting cheetah. Bhavanagar had its agent in Mombasa, Kenya, who regularly supplied African

cheetah. The same is true of Wankaner. The entire north-western plains of India-Haryana, Rajasthan and Gujrat, were not only similar but better in habitat than the present east African plains where cheetah still exists. But no cheetah was found in these Indian Plains. We would like to continue the argument but in the present context it would be sufficient to conclude here that the hunting cheetah never existed in wild in Rajasthan.

### CONCLUSIONS:

The information presented in the paper is based on faded memory, some faintly jotted notes, stray observations, interviews with available professional hunters, reports of wildlife wardens and seizures of cat pelts from unauthorised traders. In spite of the best efforts, the assemblage of the information is meagre by all standards. The data so collected can hardly stand scientific analysis for much meaningful inference. Still, there is merit in the investigations. The observations of the authors are authenticated by photographic evidences. The interviews of the professional hunters whose livelihood depended on searching the wild cats can be considered reliable. The large number of pelts of the wild cats recovered from Pali, Jaisalmer and Phalodi serve as random collection of cats from the localities. Since no systematic census has been made population estimate of the cats is only an intelligent guess work. There are not more than a score of fishing cats, mostly confined to Bharatpur fresh water swamp and Jaisamand lake. The information about Jaisamand needs to be confirmed. There is little chance for population of the caracal to be more than 50. The desert cat is likely to be over 500 distributed over the vast tracks of the arid and semi-arid zone of the State. The only wild cat that is holding on is the jungle cat. We can estimate the population to be over 2000 scattered all over the State in pockets of woodlands and scrub jungles. It has also adopted to agricultural fields.

The massacre of cats in hundreds and thousands (224 and 107 of desert cats at one place Phalodi at one time and 24,552 Jungle cats in Sirohi district) mostly done by digging their burrows and open chase by hunting hounds, can wipe out the last traces of cats from the entire state without any warning. The whole race of the wild cats is in danger of extinction.

But the wildcats breed well and they still have enough of habitat and prey. They are not the ecologically doomed species. Only the destructive acts of man needs to be controlled. They deserve to be included in the Schedule I of the Indian Wildlife Protection Act 1972. We fail to understand the in-action in taking this measure when a strong recommendation was made on November 23, 1983 at the Cat Specialists meeting held at New Delhi.

A programme of reintroduction of lesser cats is urgent. The captive bred desert cats, fishing cats and even caracals can be reintroduced in suitable localities where protection has been ensured.

Hopes for reintroduction of the hunting cheetah are not encouraging since its existence in the past in these localities is doubtful.

The public relations of the lesser cats have been bad. The cats are beautiful, and wild cats are more beautiful, a poster campaign should be mounted to display the cats of each region. The WWF-International can render valuable help in this programme.

The drawings and photographs produced in the recent book 'Endangered Species' by Tikedar (1983) is an indication of the poor illustrative material we have on our charming cats. It is a challenge to all the wildlife photographers to photograph the wild cats in wilderness of India.



It is time that lesser cats are given more attention to ensure their survival for our better, more beautiful and healthier environment.

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