

# Cobra

Volume 22

October - December 1995



Quarterly Newsletter  
of the Madras Snake Park Trust

MADRAS SNAKE PARK TRUST  
BOARD OF TRUSTEES

Shri B. Vijayaraghavan. IAS (Retd.)  
Chairman

Dr. R.J Ranjit Daniels  
Hon. Secretary

Shri P.V. Laxminaryana  
Dr. V. Krishnamurthy  
Dr. Aruna Devaraj  
Shri K. R. Venkatesan. IFS ( Retd.)  
Dr. A.V. Gopalakrishnan  
Shri M. Raghuraman  
Shri V.S. Raghavan  
Dr. T. Sundaramoorthy

Wildlife Warden, Madras  
(Dr. S. Paulraj IFS)

Jt. Director, Tourism Dept.,  
Government of Tamil Nadu.  
(Shri S.M. Sankaralingam)

Officer-in-Charge,  
Zoological Survey of India,  
Southern Regional Station,  
Madras. (Dr. P.T. Cherian)

Head, Dept. of Zoology,  
Madras University.  
(Dr.G. Durairaj)

**Editorial Committee:**

Dr. R.J. Ranjit Daniels,  
Editor.

Shri. B. Vijayaraghavan  
Dr. V. Krishnamurthy  
Shri. V. Kalaiarasan

**Cover**

**Indian Python ( *Python molurus* )**

Widely distributed in India - in forests, scrub and mangroves. The large size and elegantly patterned skin led to its excessive killing. Now listed as endangered. Non- venomous.

Photo : R.J. Ranjit Daniels

# Cobra

Cobra, Vol. 22, 1995

Volume 22

October - December 95

## CONTENTS

- V. Kalai 24/11/95*
- 4** Editorial
  - 5** Remembering M. Krishnan : B. Vijayaraghavan
  - 8** Some Ecological Observations on *Heosemys sylvatica* :  
P. T. Cherian
  - 11** Reptile Fauna of Indian Sunderban, West Bengal :  
S. Bhupathy.
  - 14** Management of Indian Rock Python (*Python molurus*)  
In Captivity : M. Sekar & M. Jagannadha Rao
  - 17** Reptiles of Anaikatty in the Nilgiri Biosphere Reserve  
South India : B. Rathinasabapathy. & Brij Kishor  
Gupta
  - 20** Fresh water Turtles : Illegal Trade in Coimbatore, South  
India : Brij Kishor Gupta & B. Rathinasabapathy.
  - 22** Records of Cannibalism in Captive Reptiles :  
R. Rajarathinam & V. Kalaiarasan.
  - 24** Notes on Abnormal Feeding Behaviour of Head Started  
Indian Python (*Python molurus molurus*) :  
R. Aengals & V. Kalaiarasan.
  - 25** Random Harvest : B. Vijayaraghavan



Cobra invites articles and short notes on reptiles and amphibians, their ecology, biology, natural history, conservation or other aspects. These may be of scientific or popular interest. Black and white photographs are also welcome.

Please send in your contribution to the Editor, **Cobra**,  
Madras Snake park Trust, Raj Bhavan Post,  
Madras 600 022.

A lizard ran out on a rock and looked up, listening no doubt to the sounding of the spheres.

And what a dandy fellow! the right toss of a chin for you and swirl of a tail!

If men were as much men as lizards are lizards they'd be worth looking at.

--- D.H. Lawrence.



## EDITORIAL

This issue of **Cobra** carries interesting observations on turtles & pythons amongst other things. Incidentally, the cane turtle *Heosemys sylvatica*, although considered endemic to Kerala has recently been collected more than once in Dakshina Kannada, Karnataka.

- Editor



## REMEMBERING M. KRISHNAN\*

M.Krishnan died on the 18th February 1996, aged 83. He and Eha (Edward Hamilton Aitken), separated by the better part of a century, are without doubt the two greatest naturalist - writers India has seen. They had a few things in common. Both viewed with a child's delight and wonder the beauty and the mystery of nature. Both had a knack of seeing the unusual in the commonplace. Both wrote extensively and in an impeccable style tinged with subtle humour. Both occasionally illustrated their writings with quaint pen - and - ink sketches of their own.

Eha scored over Krishnan in that he was fortunate to have most of his writings collected and published as books even during his lifetime. Most of Krishnan's prolific writings lie scattered. Krishnan scored over Eha in his scientific acumen, his vast experience of the jungles and his expert skill as a wildlife photographer.

Krishnan dedicated his book *Nights and Days --- My Book of India's Wildlife* ( 1985 ) to his readers to whom alone he felt he had a responsibility. He spoke of the enjoyment he had derived from his love of wildlife which in some measure he hoped to pass on to his readers. "If the book fails in this, I can plead nothing in extenuation, for a professional can have no excuse for his ineptitude in his chosen field". He surely does not fail.

He never failed his readers. That was not easy for one who regularly wrote innumerable notes for newspapers and journals, obligated to meet deadlines, and on an incredible variety of topics in natural history, all based on his own experience and observations. The craftsmanship that went into everyone of his pieces made them a delight to read. The balanced sentence, the well-turned phrase and the elegant idiom reigned supreme.

---

\* M. Krishnan was a founder-trustee of the Madras Snake Park and was a member of its Board of Trustees from 1972 to 1995.

---



There are few writers on natural history who can write with scientific objectivity and without resort to poetic imagery and yet transmit to their readers some of their elation. Strange though it may seem, the serious observer of nature is often a dried-up specimen lacking in sensitivity. That was why Hazlitt referred to the naturalist who catches the glow-worm, carries it home with him in a box, and finds the next morning nothing but a little grey worm while the poet visits it at evening "when beneath the scented hawthorn and the crescent moon it has built itself a palace of emerald light". Krishnan showed us that the good naturalist-writer could be accurate and yet be enchanting.

A collection of thirtyfour of his nature-studies published in 1961 under the title *Jungle and Backyard*, long out of print and republished in 1993, is a fine sample--but a very small sample considering his prodigious output-- of the grace of his style and his ability to make anyone take a second and a friendlier look at animals, birds and plants even ordinarily seen.

Krishnan's *Ecological Survey of the larger Mammals of Peninsular India*, published in instalments in the *Journal of the Bombay Natural History Society* during 1972-73, is a comprehensive study based on many years of his roaming about in the jungles on foot and elephant back, illustrated by 242 photographs "selected from several thousands taken over 12 years". They bear testimony to his painstaking observation and meticulous documentation.

He also wrote on subjects as far removed from natural history as ancient Tamil literature and Carnatic music. Even though very rare, these pieces too carried his hallmark of effortless ease. No Nilgiri tahr had a surer hold on a steep slope.

These days when wildlife photography has ceased to be an art and has become a technology, a matter of clever gadgetry, when wildlife habitats have become easily accessible, when photography in simulated environments and contrived settings have become not uncommon, one can only be amazed at the tremendous endurance, patience and effort and, more than anything else, the virtuosity that had gone into Krishnan's photographs. They were taken with the skimpiest of equipments and under difficult conditions. Even colour photography held no charm for him; black-and-white was good enough. With his deft use of light and shade, with his unerring eye for detail, with the mood of the animal faithfully captured, the elephant and the gaur look ready to walk out of the photograph.



Writing in 1964, E.P. Gee described Krishnan as a "a bit of a lone wolf". That was a bit of an understatement. Though not always the easiest of men to get on with, he was effusive in the company of those who knew him well and to them he could be generous to a fault.

Honours came to him unasked for and he accepted them with nonchalance. Distinctions sat lightly on him. When environment and wildlife became fashionable pursuits and passports to instant fame, Krishnan watched the goings-on with quiet cynicism.

There was a singular genuineness about him and all that he did.

B. Vijayaraghavan.

(Courtesy : *Indian Review of Books.*)



**SOME ECOLOGICAL OBSERVATIONS ON**  
*Heosemys sylvatica*  
**(Henderson) (Reptilia : Testudinidae)**

**P.T. Cherian**

**Zoological Survey of India,  
100, Santhome High Road,  
Madras - 600 028**

Commonly called the forest cane tortoise, *Heosemys sylvatica* (Henderson) is one of the rarest and most endangered species of tortoises which has a limited range of distribution on the forested slopes of Western Ghats. For seventy years this species was not recorded from anywhere after it was originally described by Henderson (1912) based on two specimens collected from the hill ranges which form part of the present-day Idukki district of Kerala.

During the course of investigations from 1980 to 1985 to assess the impact of Idukki Hydel Project on the fauna of the Project area, attempts were made to ascertain the occurrence and relative abundance of various groups of organisms, including the reptiles in the Project area. During the surveys two live specimens and the shell of a dead one, killed and eaten a couple of hours before, were collected in October - November 1981 from the slopes of Kudamurutti forests, about 24 kilometers to the North of Idukki. Later, Vijaya (1982) collected another live specimen from the forest stretch. Further attempts by spending 450 man - hours solely and many more hours during the course of general faunistic surveys for locating this species in this and other forest areas of Idukki were not successful. Later, Groombridge (1983) confirmed the occurrence of this species in the Anamalai Hills.



**Habits and Habitats :**

Though very rare, in the natural habitat this species is found on the forest floor near fallen and partially decaying tree trunks on which mushrooms grow. In the natural conditions this tortoise was found to feed on mushrooms, its preferred food, besides blades of grass, fallen fruits and rarely flowers.

Of the two live specimens collected in 1981 one died within two days after capture while the other survived for three months in captivity in the Zoological Survey of India premises at Cochin. In captivity it was fed on bread, vegetable matter and occasionally insects. Unlike in its native habitats, in captivity it was found to be rather restricted in its movements, at the most covering 10 - 20 meters a day. One of the factors responsible for its restricted range of movements and relative inactivity could be the difference in the climatic conditions and altitudinal variations between its natural habitat in the forests usually at around 700 - 900 m above sea level and its place of captivity in the open space at Cochin, 10 m above sea level. The absence of normally cool and damp forest floor, provided by the tree cover in its natural habitat, in the changed location exposed the species to increased sunlight, higher temperature and decreased humidity. The different species of mushrooms it was observed to feed on in the forest ecosystem were also not available in its place of captivity. All these and related factors affected its survival.

**Depletion of Population and Species Association :**

According to the reports of the tribals, *H. sylvatica* used to be represented by viable populations in the forests of Idukki in the sixties and seventies of this century. Labourers working in the cardamom plantations at Kudamurutti and nearby forests reportedly used to collect upto 30 specimens in a day because of the reputed therapeutic value of its flesh (said to be a cure for piles). But nowadays they are very rarely observed in the forests even by the tribals who usually sieve the area.



As observed by Groombridge (1983) *H. silvatica* was found to be sympatric with the testudinid *Indotestudo forstenii*, the Travancore tortoise. More than eight specimens of this larger and relatively common species were observed in the same forest from where the cane tortoise specimens were collected. This too is a declining species in the area. Both these chelonian species appear to provide valuable protein food to the tribals.

#### Factors Responsible for the decline in population :

Western Ghats is known for its species diversity and high degree of endemism. *H. silvatica* is one of the 89 species of reptiles endemic to the Western Ghats, out of a total of 6547 species of reptiles recorded so far from the World. Habitat loss and degradation brought about by developmental pressure, resource over-exploitation, ignorance and intervention failure - both ineffective positive intervention and unintentional negative intervention - are playing ever increasing roles in the depletion of the populations of many rare and endangered species occurring in the Western Ghats.

Loss of about 60 sq. km of forested land through the coming up of the Idukki reservoir, easy access to what remains of the forests to man, human predation and forest fires - both natural and man made - are forcing this and many other species of wildlife in this area to extinction. Attempts should also be made at the earliest to ascertain their occurrence in other areas of the Western Ghats.

#### ACKNOWLEDGEMENTS

I am grateful to the Ministry of Environment and Forests, Govt. of India for providing the funds and to the Late Dr. N.L. Ramanathan of the above ministry for encouragement.

#### REFERENCES

- Cherian, P.T. 1985. Ecological impact studies with particular reference to changes in the fauna (including plankton) at Idukki. **Final Report**, pp. 1-212, IX pls.
- Groombridge, B., E.O. Moll and J. Vijaya. 1983. Rediscovery of a Indian turtle. *Oryx*, 17 (3): 132-134.
- Henderson, S. 1912. Preliminary note on a new tortoise from S. India *Rec. Indian Mus.*, 7 : 217.
- Vijaya, J. 1982. Rediscovery of the forest cane turtle (*Heosemys silvatica*) of Kerala. *Hamadryad*, 7 (3): 2-3.



## REPTILE FAUNA OF INDIAN SUNDERBAN, WEST BENGAL.

S. Bhupathy

Salim Ali Centre for Ornithology and Natural History  
Kalamalayam, Coimbatore - 641 010.

The present list of reptiles is based on a field survey conducted in Indian Sunderban from 20th February to 20th May 1994. A description of this study is available elsewhere (Bhupathy 1995.). Specimens in the Forest Museum at Saznakhali in the Sunderban Tiger Reserve were also examined. It is to be noted that the present list is not complete and further intensive surveys may yield more number of species.

#### INDIAN SUNDERBAN

Sunderban (21° 32' - 22° 20' N, 88° 03' -89° 05' E) in Pargana district, West Bengal is one of the World Heritage Sites. It is located in the Ganges and Brahmaputra drainage. Sunderban is one of the largest mangrove swamps in the world covering more than 12,000 sq km. About one third of this (4,200 sq km) is within Indian limits and the rest is spread along the coast of Bangladesh. The tidal swamp forest in Sunderban is rich in flora with about 300 recorded species (Hussian 1994.) Dominant plant species are *Phoenix paludosa*, *Excoecaria agallocha*, *Sonneratia apetala*, *Bruguiera gymnorrhiza*, *Xylocarpus granatum*, *Rhizophora mucronata*, *Avicennia* species and *Heritiera fomes*. *Heritiera fomes* is rare in Indian side and is locally (Bangla) termed as "Sundri", from which the name 'Sunderban' meaning 'beautiful forest' has its origin.



## REPTILE FAUNA

Twenty nine species of reptiles (eight species of turtles, seven species of lizards, one species of crocodile and 13 species of snakes) have been recorded during the present study. Seventeen (58.6%) species recorded are listed in the schedules of Indian Wildlife (Protection) Act 1972 (Anon 1991, Table 1).

Among turtles, three species are sea turtles, Hawksbill, Olive Ridley and Green Turtle, and the remaining are freshwater turtles. The River Terrapin is rare in Indian Sunderban and globally as well. Species such as Olive Ridley, Water Monitor, Tuctoo, Estuarine Crocodile and Ornate Flying Snake appear to be common in the Indian Sunderban. The subspecies of python and cobra of Sunderban are Burmese python and Monocellate Cobra respectively. Four species of snakes inhabiting the Sunderban, namely Indian Krait, Banded Krait, Indian Cobra and King Cobra are poisonous (Table 1).

**Table 1. Reptile species recorded in the Indian Sunderban during February-May 1994**

S.No.	Scientific Name	Common Name
1.	<i>Lepidochelys olivacea</i> *	Olive Ridley
2.	<i>Chelonia mydas</i> *	Green Turtle
3.	<i>Eretmochelys imbricata</i> *	Hawksbill
4.	<i>Batagur baska</i> *	River Terrapin
5.	<i>Kachuga tecta</i> *	Indian Roofed Turtle
6.	<i>Morenia petersi</i> *	Indian Eyed Turtle
7.	<i>Pelochelys bibroni</i> *	Asian Giant Softshell Turtle
8.	<i>Lissemys punctata</i> *	Indian Flapshell Turtle
9.	<i>Hemidactylus sp.</i>	House Gecko
10.	<i>Gecko gecko</i>	Tuctoo
11.	<i>Calotes versicolor</i>	Garden Lizard
12.	<i>Sitana ponticeriana</i>	Fanthroated Lizard
13.	<i>Mabuya</i> .	Skink
14.	<i>Varanus bengalensis</i> *	Common Monitor
15.	<i>Varanus salvator</i> *	Water Monitor



**Table 1- Contd.. Reptile species recorded in the Indian Sunderban - during February-May 1994**

S.No.	Scientific Name	Common Name
16.	<i>Crocodylus porosus</i> *	Estuarine Crocodile
17.	<i>Python molurus</i> *	Indian Python
18.	<i>Ptyas mucosus</i> *	Common Rat Snake
19.	<i>Oligodon arnensis</i> *	Common Kukri
20.	<i>Chrysopelea ornata</i>	Ornate Flying Snake
21.	<i>Lycodon aulicus</i>	Wolf Snake
22.	<i>Xenochropis piscator</i> *	Checkered Keelback
23.	<i>Atretium schistosum</i> *	Olivaceous Keelback
24.	<i>Boiga trigonata</i>	Cat Snake
25.	<i>Cerberus rhynchops</i> *	Dogfaced Water Snake
26.	<i>Bungarus caeruleus</i>	Common Indian Krait
27.	<i>Bungarus fasciatus</i>	Banded Krait
28.	<i>Naja naja</i> *	Indian Cobra
29.	<i>Ophiophagus hannah</i> *	King Cobra

\*Species listed in the Wildlife (Protection) Act 1972

The present information was gathered when I was conducting a River Terrapin survey in the Indian Sunderban from February to May 1994. Financial assistance for the project was provided by the IUCN/SSC Turtle Recovery Programme of the American Museum of Natural History. I am thankful to West Bengal Forest Department for permission to work in the area and logistic support.

## LITERATURE CITED

Anon 1991. The Wildlife Protection Act 1972 (as amended up to 1991.) Natraj Publishers, Dehra Dun.

Bhupathy, S. 1995. Status and distribution of the River Terrapin *Batagur baska* in the Sunderban of India. SACON-Technical Report 3, Salim Ali Centre for Ornithology and Natural History, Coimbatore.

Hussian, Z. 1994. Management of mangrove forests-an example from the Bangladesh Sunderbans. IUCN Wetland Newsletter 9:15-18.



**MANAGEMENT OF INDIAN ROCK PYTHON  
(*Python molurus*) IN CAPTIVITY AT  
ARIGNAR ANNA ZOOLOGICAL PARK,  
VANDALUR, MADRAS.**

M. Sekar,<sup>1</sup>

M. Jagannadha Rao,<sup>2</sup>

Arignar Anna Zoological Park, Madras - 600 048

**INTRODUCTION**

Arignar Anna Zoological Park has been maintaining 23 species of reptiles in captivity since 1985. Indian Rock Python (*Python molurus*) is one among them successfully maintained and bred here. The species is maintained in many zoos in India and abroad, as it breeds well in captivity (Acharjyo and Misra, 1976, Paulraj and Thiruthalinathan, 1989)

*Python molurus* is one of the largest and heftiest of the Indian snakes. The population of this species has declined to alarming levels during the last fifty years due to illegal international trade of its skin which is in high demand in the world market (Tikader, 1983). Hence captive breeding and better management of *Python molurus* assumes special importance to prevent further decline of the species. Moreover Rock python is one of the most spectacular exhibits in any zoological garden or reptile house.

The successful maintenance and reproduction of a captive population of animals is dependant on the awareness of the habitat requirements of each individual in that population (John.E cooper and Jackson, (1981)).

1. Biologist  
2. Deputy Director



**HOUSING MANAGEMENT**

The pythons were housed in a specially built enclosure measuring 6.2 X 3.3 X 1.8 m. The three sides of the enclosure are concrete walls and the side towards viewer gallery is fitted with 8mm thick glass of 3.72 X 1.26m size. Above this viewing glass, perforated aluminium sheet was provided for ventilation. Similarly the door fitted towards the service path (opposite to the glass side) has perforated aluminium sheet for cross ventilation. The cement floor is filled with sand over which dried leaves and litter are scattered to simulate the natural environment. Large stones and wooden branches are provided on the floor to facilitate easy moulting and for enrichment of the enclosure. To provide sunlight inside the cage two openings (0.56m<sup>2</sup>) are provided in the roof. This arrangement allows to keep the sunlight exposed area warmer so that besides getting exposure to natural light the reptile can choose the optimum temperature and can move to different areas in the enclosure. Water is sprayed over the straw and other litter spread over the roof of the enclosure whenever the temperature goes beyond 38°C. A cement trough of 0.92 m X 0.58 m is provided inside the enclosure at ground level to provide water to the animals.

**FEEDING MANAGEMENT**

Even though pythons feed on mammals, birds and small reptiles, our observations indicated that they prefer mammals and birds to reptiles. Hence in captivity the 5 year old pythons are each fed with 2 rats of 250 gms. weight once in a week and chicken of 1500 gms weight once in 15 days. Immediately after feeding they should not be forced to feed more. If forced, there are chances of tearing of its body by the hard parts of the prey such as bone. It was also observed that adult pythons usually feed only during night whereas young ones usually feed during day time. Sometimes the snakes refuse to feed for considerable periods (46 days maximum recorded) without any ill effect.



## HEALTH MANAGEMENT

The pythons were observed to be frequently affected by ticks. Manual deticking by the animal keepers whenever the ticks are found on the body of the pythons is being done regularly besides changing the sand in the enclosure once in 3 months.

Pythons are breeding regularly indicating their adaptation and acclimatization to the captive environment. Young ones were produced from two clutches by a single pair.

The successful maintenance, survival and breeding of the pythons at Arignar Anna Zoological Park can be attributed to the close attention paid to the micro-environment, individual diet requirement and general husbandry practices.

## REFERENCES:

- Acharjyo, L.N. and Misra, R. 1979. Aspect of reproduction and Growth of the Indian Python (*Python molurus molurus*) in Captivity. Brit. Jour: Herp. 5: 562-565.
- John E. Cooper and Liphant Jackson, 1981. Diseases of the Reptilia vol. 2 Academic Press Inc. London PP.349.
- Kalairasan, V. and Rathinasabapathy, B. 1991. Breeding of the Indian Python (*Python molurus*) Cobra; No. 3,10-12.
- Paulraj, S. and Thiruthalinathan, R. 1989. Breeding behaviour of the Indian Python, Vol. 36(3) Zoo. Forum, London (.12-15.)
- Tikader, 1983. Threatened Animals of India. Zoological Survey of India. Calcutta PP. 247-248.



## REPTILES OF ANAIKATTY IN THE NILGIRI BIOSPHERE RESERVE, SOUTH INDIA.

**B. Rathinasabapathy and Brij Kishor Gupta**  
**The Coimbatore Zoological Park and Conservation Centre**  
**Pioneer House, Peelamedu, Coimbatore - 641 004.**

The Nilgiri Biosphere Reserve (NBR) is the home for many endemic species of Western Ghats. Among the 285 species of vertebrates endemic to the Western Ghats, 156 (55%) are found in the NBR (Daniels, 1993). This includes 60 species of reptiles, of which seven species are endemic to this reserve.

The objective of this study was to prepare a checklist of reptiles found in Anaikatty, located at an altitude of 600 MSL in the rainshadow area of the Western Ghats. The study area is a catchment zone bordered by hill slopes (of 90-125m height) on three sides and the Kodungarai river in the west (Fig.1). Approximately 1 sq km of this 2 km. catchment area is barren and extensively terraced for cultivation. This is where the proposed Coimbatore Zoological Park is going to be located (Rangaswamy and Walker 1992). The remaining 1 sq km area is part of the Periyanaickenpalayam Reserve Forest. The areas surveyed for reptiles included the Zoo site and part of the Reserve Forest. Field surveys were conducted between September 1993 and September 1995. Species presence was established by direct sighting or indirect evidences. The Reserve Forest vegetation type could be described as dry deciduous scrub (an interphase of dry deciduous and thorn forests). Rainfall is about 800 to 1000 mm.

Altogether 18 species of reptiles were recorded during this survey (Table 1). Of the four common poisonous snakes, three could be recorded from the study. The most commonly sighted species includes fanthroated lizard, calotes, common monitor, chameleon, rat snake and cobra. During survey poaching of monitor lizards was noticed.

It seems animals are killed by the local tribes (Irulas) for food as well as for skin. None of the Western Ghats endemic species were recorded during this preliminary survey.

**Table 1. Reptiles recorded at Anaikatty in the Nilgiri Biosphere Reserve during September 1993 to September 1995.**

S.No.	Scientific name	Sightings / Evidences
1.	<i>Hemidactylus brooki</i>	Frequent
2.	<i>Sitana ponticeriana</i>	Frequent
3.	<i>Calotes versicolor</i>	Frequent
4.	<i>C. rouxi</i>	Frequent
5.	<i>Mabuya carinata</i>	Frequent
6.	<i>Varanus bengalensis</i>	Frequent
7.	<i>Chameleon zeylanicus</i>	Frequent
8.	<i>Python molurus</i>	4 Sightings
9.	<i>Eryx johni</i>	2 Sightings
10.	<i>Xenochropis piscator</i>	Frequent
11.	<i>Ptyas mucosus</i>	7 Sighting
12.	<i>Bungarus caeruleus</i>	1 *
13.	<i>Naja naja</i>	5 Sightings
14.	<i>Macropisthodon plumbicolor</i>	2 Sightings
15.	<i>Ahaetulla nasutus</i>	2 Sightings
16.	<i>Vipera russelli</i>	2 **
17.	<i>Dendrelaphis tristis</i>	2 Sightings
18.	<i>Melanochelys trijuga</i>	1 Sightings

\* Dead specimens

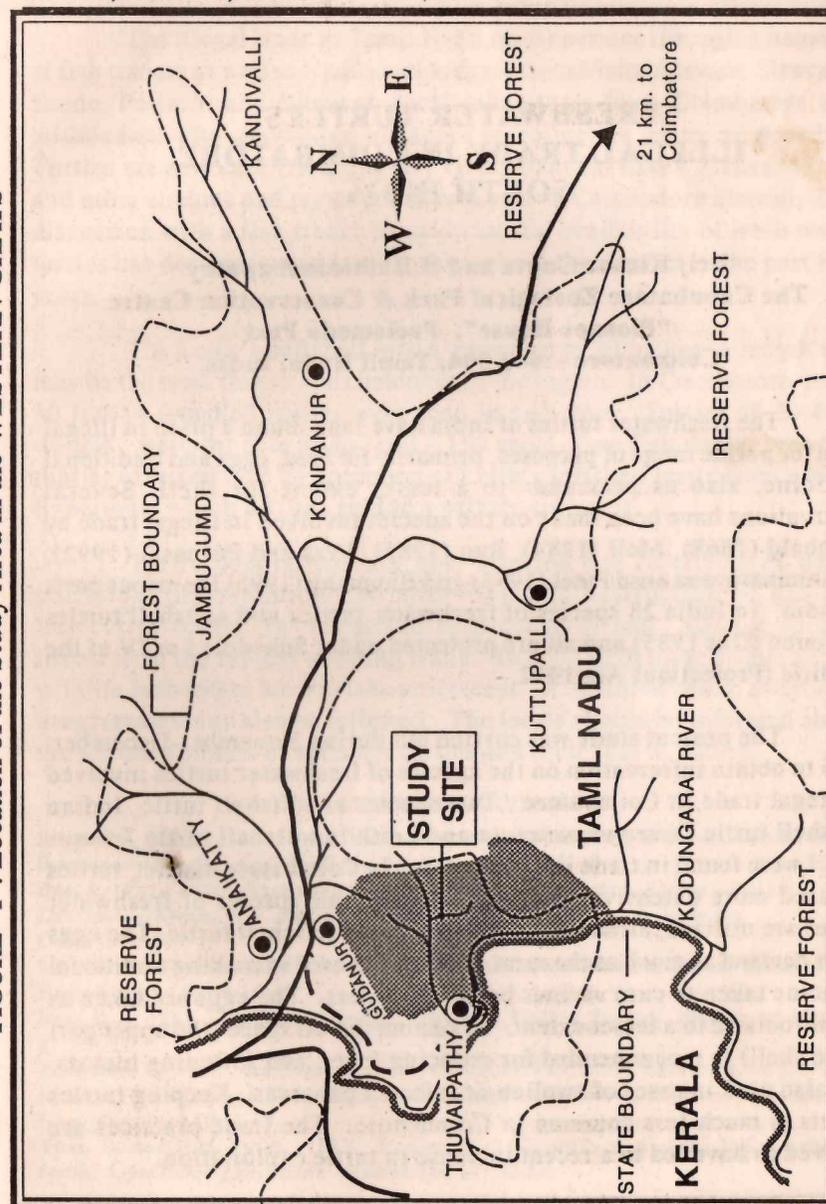
\*\* Moulded skin

#### LITERATURE CITED

Daniels, R.J.R. 1993. The Nilgiri Biosphere Reserve and its role in conserving India's biodiversity. *Current Science*, 64:10, 706-708.

Rangaswamy, N. and Sally Walker. 1992. A zoo for a Biosphere Reserve: The Coimbatore Zoological Park Education and Public Relations Program. *International Zoo Educators Journal*, 26, 24-26.

**FIGURE - I : Location of the Study Area in the WESTERN GHATS**





## FRESHWATER TURTLES: ILLEGAL TRADE IN COIMBATORE, SOUTH INDIA

Brij Kishor Gupta and B.Rathinasabapathy  
The Coimbatore Zoological Park & Conservation Centre  
"Pioneer House", Peelamedu Post  
Coimbatore - 641 004, Tamil Nadu, India.

The freshwater turtles of India have long found a place in illegal trade for a wide range of purposes, primarily for food, eggs and traditional medicine, also as pets and to a lesser extent for shell. Several observations have been made on the species involved in illegal trade by Theobald (1868), Moll (1984), Rao (1985), Vyas and Purnasai (1992), Lakshminarayana and Patel (1993) and Bhupathy (1995) in various parts of India. In India 28 species of freshwater turtles and softshell turtles are found (Das 1985) and all are protected under Schedule I or IV of the Wildlife (Protection) Act 1972.

The present study was carried out during November-December, 1995 to obtain information on the species of freshwater turtles involved in illegal trade in Coimbatore. Two species of softshell turtle; Indian flapshell turtle *Lissemys punctata* and Leith's softshell turtle *Trionyx leithii* were found in trade in Coimbatore. In Coimbatore district, turtles are used more extensively as food, virtually all species of freshwater turtles are utilized, although preference is for softshell turtle. The eggs are in demand as much as the meat. Turtles are used in making traditional medicine taken to cure various bodily disorders. The eggs are taken as an aphrodisiac to a lesser extent. In custom the carapace (the upper part of the shell) is recommended for reducing fever, and softening tumors. It is also used in cases of swollen or infected pancreas. Keeping turtles as pets is much less common in Coimbatore. The trade practices are believed to have led to a recent increase in turtle exploitation.



The illegal trade in Tamil Nadu state operates through a network of fish traders as well as traditional hunters from Mettupalayam, Siruvani, Erode, Pollachi and Bhavani, local inhabitants from Coimbatore and middlemen who encourage villagers to collect as many as possible. Turtles are collected from Cauvery river, Bhavani River, Siruvani Dam and other streams and ponds found adjacent to Coimbatore district. In a discussion with a fish trader he said that the availability of fresh water turtles has declined considerably throughout the district in the past five years.

The Leith's softshell turtle, grows up to 20 inches in length and may be the most threatened chelonian in the region. In Coimbatore, some 10 Indian flapshell turtles were seen in one store. Turtles of 2- 4 kg weight were for sale at Rs. 100 - 150 each. One fish dealer reported that he obtained a 10 kg specimen of Leith's softshell turtle from a local fisherman, which he then sold to a private collector.

Turtle populations are also affected due to effects of water pollution, deforestation and alteration and destruction of habitat. Immediate action is needed to help conserve and manage species involved in the rapidly growing trade. To cope with these problems the wildlife authorities have to take strict steps. A series of public awareness programmes may also be followed. The locals should be informed about the uncommonness of softshell turtles and their role in nature.

### LITERATURE CITED

- Bhupathy, S. 1995. Status and Distribution of the River Terrapin *Batagur baska* in the Sunderban of India. SACON Technical Report 3. PP.37.  
Das, I. 1985. Indian Turtles Field Guide, WWF India (Eastern Region), PP.119.  
Lakshminarayana, K.V. and K. Purnasai. 1993. On Turtles & Tortoises. Cobra 14:3-11  
Moll, E.O. 1984. Freshwater turtles in trade, their Status, Conservation and Management. Hamadryad 9 (3) : 9-14.  
Rao, R.J. 1985. The Freshwater turtles trade in Madhya Pradesh. Hamadryad 10 (1 & 2) : 12-18.  
Theobald, W. 1868. Catalogue of the reptiles of British Burma, embracing the provinces of Pagu, Martaban and Tenasserim, with description of new or little known species. J. Linn. Soc. Zool.10: 4-67.  
Vyas, R. and B.H. Patel. 1992. Studies on the Reproduction of the Indian softshell turtle, *Aspideretes gangeticus*. Hamadryad 17: 32-34.



## RECORDS OF CANNIBALISM IN CAPTIVE REPTILES

**R. Rajarathinam and V. Kalaiarasan.**  
**Madras Snake Park Trust,**  
**Raj Bhavan Post, Madras 600 022.**

Cannibalism is a well known phenomenon amongst reptiles. Instances of cannibalism are recorded in various snakes like kraits, vipers, rat snakes. Recently such incidence was noticed in the monitor lizard, pond turtle, tree snake, trinket snake, regal python and Indian python. The details are as follows.

### **Monitor Lizard (*Varanus bengalensis*)**

Different size and age group of animals were kept in a big and open enclosure (5m X 4m) in natural condition. These animals were fed with frogs, chicken and rats at three days interval. One monitor lizard was seen swallowing another one of the same size on 29.4.95. It started from the head and the proces was completed in about two hours.

### **Pond Turtle (*Melanochelys trijuga*)**

Six head started pond turtles (three months old) were kept in a fish tank and fed with earthworms regularly. On 24.8.95 morning one turtle was missing and the piece of carapace and muscular portion of legs were seen. Other parts were eaten by the other turtles.

### **Bronzeback Tree Snake (*Dendrelaphis tristis*)**

Tree snakes were kept in big glass fronted cage (1m X 0.3m X 1m) these animals were fed with fanthroated lizards, house geckos and small frogs once in a week. Three incidents of cannibalism were noted on 4.9.95, 9.10.95, & 23.10.95. In all three cases, cannibalism was recorded during feeding time. The sizes of both prey and predator were similar.



### **Trinket Snakes (*Elaphe helena*)**

Three trinket snakes of various age groups were kept in small glass fronted cage in a semi-natural condition. These animals were regularly fed with small rats and mice. On 7.5.94, during feeding it was noticed that one trinket snake held the head of another animal and started swallowing immediately. Within half an hour the animal had been entirely swallowed.

Kalaiarasan (1992) noticed earlier, cannibalism in regal and Indian pythons at Madras Snake Park. Similar incidents were also recorded on 31.12.94 and 8.11.94 respectively.

All the incidents were recorded after or during feeding time. It is not clearly known which is the cannibalism inducing factor. Generally prolonged period of starvation may be inducing the cannibalism. But in these cases cannibalism was noticed after or during feeding time. This may be due to the stimulus and not prolonged starvation.

---



---

### ***Height of impersonality***

A scientific writer calls himself 'the author' rather than 'I', supposedly to appear more objective and respectable. The height of impersonality, reported in the British Medical Journal, was reached in an article by two authors which carried the footnote, "since the article was written, unfortunately one of us has died"



**NOTES ON ABNORMAL FEEDING BEHAVIOUR OF  
HEAD STARTED INDIAN PYTHON  
(*Python molurus molurus*)**

**R. Aengals and V. Kalaiarasan.  
Madras Snake Park Trust  
Madras - 600 022.**

Nine newly born pythons (*Python molurus*) were kept in small plastic trays covered with stainless steel mesh at the Madras Snake Park. Of these, two babies refused to take food and became very thin. The length and weight of the Python was 61 cms and 130 gms respectively. This thin size facilitated the animals to escape from the mesh during the night of 17.8.94. We searched all over the place and found only one in the corner of the room. The other animal could not be located. However, the search was continued. On 23.8.94 morning at 8.00 a.m a few squirrels on the roof were making alarm calls. There we found the snake with bulged body without movement. The baby python was caught and kept in a separate tray. It died due to suffocation on 26 8.94. When we dissected the body it was found that the snake had swallowed a big bandicoot (*Bandicota indica*). The size of the bandicoot was as follows: Head and body 25 cm and tail 21 cm, weighing about 450 gms.



**RANDOM HARVEST**

..... to soothe a savage beast.

Is there such a thing as 'snakecharming'? It is, of course, wellknown that the cobra swaying it's hood before the snakecharmer playing his pipe is nothing more than a visual reaction to the movement of the pipe. But that does not appear to be all there is to it. Raymond L. Ditmars (not a name to be trifled with in reptilian studies) says in his book *Strange Animals I have Known* that he had known men who had an uncanny ability (which they themselves could not explain) to handle snakes effortlessly and their touch had a soothing effect on even aggressive snakes. Ditmars also records his experience of observing how certain notes of a sitar and a piano had the effect of rendering a king cobra temporarily inert. Says Ditmars: "It was probably a note in the song that produced the affecting pitch. I am convinced that the production of such pitches at will is understood by some Hindu (read 'Indian') snakecharmers. There are mysteries about true snakecharming and there is something to it". Well, we haven't travelled very far in unraveling the mystery since Ditmars wrote that --- in 1931!

*The Cane Mutiny*

*Bufo marinus*, the cane toad, was introduced into coastal Queensland, Australia, in 1935 in an attempt to control cane beetles. It has now spread far and wide in Australia and has become a cause for concern because of it's prodigious appetite and the toxicity of all of it's life stages to endemic fauna. The Australian Government has funded a project for investigation of the possibility of controlling the cane toad through biological means.

(Source : *Froglog* Dec. 1995)



**Rikki - tikki - tavi**

How does a mongoose survive its fight with a deadly cobra? The explanations are (i) the agility and the fast reaction speed of the mongoose, (ii) the mongoose's knack of staying just beyond the striking distance of the cobra's raised hood, (iii) the erected, long, dense hair on the mongoose's body deceiving the snake into making a strike that falls short of the mongoose's skin and (iv) the mongoose's resistance to snake venom.

Extensive experiments have been conducted on the last-mentioned factor at the Weizmann Institute of Science at Rehovot in Israel by Dr. Sylvia Kachalsky, Dr. Bo Jensen, Dr. Dora Barchan and Dr. Sara Fuchs. In an article in the *Hindu* of the 18th Jan. 1996, Dr. D. Balasubramanian of the Centre for Cellular and Molecular Biology, Hyderabad, gives an account of this research work based on a paper published in the Nov. 1995 issue of the *Proceedings of the National Academy of Sciences*.

The article in the *Hindu* gives the impression that the mongoose is totally immune to snake venom. The fact is that the mongoose has a very high degree of resistance to snake venom but is not totally immune. Dr. Bernhard Grzimek says in his *Animal Encyclopedia* (Vol. 12) that a mongoose can withstand a dose of cobra venom six times as strong as that which would kill a rabbit.

Compiled and processed by **B. Vijayaraghavan.**



Space for Notes :



Space for Notes :

Annual subscription for 4 issues of COBRA  
commencing from the date of  
subscription including postage.

Inland Individual - Rs. 75/-  
Inland- Institution - Rs. 150/-  
Overseas Individual & Institution - U.S. \$ 10/-

Subscription may be sent by MO/DD  
drawn in favour of  
" Madras Snake Park Trust"  
Payable at Madras.

**Madras Snake Park Trust**  
**Raj Bhavan Post**  
**Madras - 600 022. India.**

Printed on behalf of the **Madras Snake Park Trust**  
by aad infinitum, alwarpet, madras 600 018.

AIMS AND OBJECTIVES OF  
**MADRAS SNAKE PARK TRUST**

- i) To maintain and display a captive collection of snakes and other reptiles as a means of education of the public.
- ii) To promote knowledge on snakes and other reptiles and dispel the erroneous beliefs about them.
- iii) To undertake captive breeding of vulnerable species of snakes and other reptiles.
- iv) To aid and assist research in herpetology.
- v) To provide facilities for the identification and classification of snakes and other reptiles and, for this purpose, maintain a museum of study collections.
- vi) To maintain a library of books and other literature on herpetology.
- vii) To publish scientific and semi- scientific literature on snakes and other reptiles.
- viii) To undertake survey on the distribution and status of snakes and other reptiles.
- ix) To provide consultancy services on snakes and other reptiles.
- x) To provide a common forum for amateur herpetologists to interact.