

Cobra

Volume - 54

October - December 2003



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Of the Chennai Snake Park Trust

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Cover

Flying snake (*Chrysopelea ornata*)

Found in forests of the Andamans, Western Ghats up to Dangs, Sri Lanka, Katernia Ghat, Uttar Pradash, North Bihar, West Bengal and eastwards throughout the Indo - Chinese subregion.

Photo: **K.Ramachandran
Rajapalayam.**

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Volume - 54

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CONTENTS

" We shall never fully understand nature
(or ourselves), and certainly never respect
it, until we dissociate the wild from the
notion of usability "

- John Fowles.

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Volume - 54

October - December 2003

CONTENTS

- 1** A PRELIMINARY SURVEY OF THE HERPETOFAUNA OF NAGLOK AREA, JASHPUR, CHHATISGARH STATE - Mukesh Ingle.
- 6** HERPETOFAUNAL DIVERSITY OF DINDORI DISTRICT, MADHYA PRADESH - Pawan Gajbe.
- 9** RECORD OF MARBLED BALLOON FROG (*UPERODON SYSTEMA*) FROM JAMBUGHODA WILDLIFE SANCTUARY AND ITS DISTRIBUTION IN GUJARAT STATE - Raju Vyas, B.M. Parasharya and Kartik B. Upadhyay.
- 11** THE GREEN POND FROG (*RANA HEXADACTYLA*) IN A VILLAGE POND IN KANCHEEPURAM DISTRICT, TAMILNADU - J. Subramanean.
- 14** NOTES ON AN EVENT IN A VILLAGE POND - J. Subramanean.
- 15** CAT SNAKE FEEDING ON GARDEN LIZARD - S. Saravanan.
- 16** AN ENCOUNTER WITH A SAW-SCALED VIPER (*ECHIS CARINATUS*) - T. Murugavel.
- 20** REPTILES OF MUDUMALAI WILDLIFE SANCTUARY, TAMIL NADU - V. Kalaiarasan.
- 23** A NOTE ON CONDITIONING IN STARRED TORTOISE *GEOCHELONE ELEGANS* (SCHOEPPF) FOR YELLOW COLOURED FOOD - M.M. Saxena.
- 24** SHED SNAKE SKIN IN THE DIET OF THE JERDON'S BULL FROG *HOPLOBATRACHUS CRASSUS* (JERDON) - S.Sivakumar and Ranjit Manakadan.
- 26** 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 your contributions to the Editor, **Cobra**, Chennai Snake Park Trust, Rajbhavan Post, Chennai - 600 022.

CONTENTS

1	A PRELIMINARY SURVEY OF THE HERPETOFAUNA OF NAGLOK AREA, JASHPUR, CHHATISGARH STATE - Mukesh Ingle
6	HERPETOFAUNAL DIVERSITY OF BIRBHORI DISTRICT, MADHYA PRADESH - Pawan Gajbe
9	RECORD OF MARRIED BALLOON FROG (EPHEBOZA SYSTEMA) FROM JAMBHODI WILDLIFE SANCTUARY AND ITS DISTRIBUTION IN GUJARAT STATE - Raju Vyas, B.M. Patil and Karik B. Upadhyay
11	THE GREEN POOD FROG (RANA HEXADACTYLUS) IN A VILLAGE POND IN KANCHEEPURAM DISTRICT, TAMILNADU - I. Subramanian
14	NOTES ON AN ESTER IN A VILLAGE POND - I. Subramanian
15	AN ENCOUNTER WITH A SAW-SCALE IN YOUR GARDEN - T. Muniraj
20	REPTILES OF WOODMOUNTAIN WILDLIFE SANCTUARY, JASHPUR - V. Kalishankar
24	A NOTE ON CONDITIONING IN STARRED TORTOISE GECKWOLVES (ELEPHAS SCORPIUS) FOR YELLOW COLOURED FOOD - M.M. Saxena
24	SHED SNAKE SKIN IN THE DIET OF THE JERDON'S BULL FROG (HOPLOBATIS CASPERI) - S. Sivakumar and Rajni Manoharan
26	RANDOM HARVEST - B. Vijayaraghavan



A PRELIMINARY SURVEY OF THE HERPETOFAUNA OF NAGLOK AREA, JASHPUR, CHHATISGARH STATE

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Naglok area in the eastern part of Chhattisgarh state adjoining the borders of Jharkhand and Orissa has nine blocks, namely, Tapkara, Pharsabahar, Patthalgaon, Kunkuri, Kansabel, Bagbahar, Bagicha, Sanna and Narayanpura and covers an area of 62,026 square kilometres. The climate of the area is semi-tropical in general. The average annual rainfall is 1170 mm. Winter is cool and moist. Dec.-Jan. are the coldest months when the temperature falls to 3° – 5° c. In summer, May-June are usually the hottest months of the year when temperature rises upto 42°c. The flora of the area is the southern dry and mixed deciduous forest and chiefly consists of *Butea monosperma*, *Embllica officinalis*, *Madhuca indica*, *Cassia siamea*, *Cassia fistula*, *Delonix regia*, *Terminalia arjuna*, *Azadirachta indica*, *Mangifera indica*, *Tectona grandis*, *Ficus benghalensis*, *Tamarindus indica*, Kalimusli, Safedmusli, Akarkara, Vach, Harra, Saja, Tilla, Bhelwan, Tendu and Saal. The terrain is hilly and undulating. The hills run in all directions and have slopes and valleys. The rock formation is mainly of granite and has iron ore. The soil is sandy and colour is brown.

The available information pertaining to Chhattisgarh is found in the works of Smith (1935, 1943), Daniel & Selukar (1964), Agarwal (1976, 1981), Sanyal & Dasgupta (1990), Sanyal (1995), Das (1997), Pillai *et. al.* (1991), Murthy (1985), Aengals & Rajarathinam (2001) etc. But these concern mainly the herpetology of Bastar, Sarguja, Bilaspur and Raipur districts.



This is the first report on the herpetofaunal diversity of Naglok area of Jashpur district of Chhatisgarh. The study made during October - November 2002 and July - August 2003 and covered a total of 5 amphibians (3 families) and 31 species of reptiles (10 families).

Herpetofaunal Diversity of Naglok Area of Jashpur, Chhatisgarh

Systematic account

Class: Amphibia

Family: Bufonidae

1. *Bufo melanostictus* (Schneider, 1799)
Common Asian toad
 2. *Bufo stomaticus* Lutken 1862
Marbled toad
- Family: Microhylidae**
3. *Microhyla ornata* (Dumeril & Bibron, 1841)
Ornate narrow-mouthed frog

Family: Ranidae

4. *Hoplobatrachus tigerinus* (Daudin, 1803)
Indian bull frog
5. *Euphlyctis cyanophlyctis* (Schneider, 1799)
Indian skipping frog

Class: Reptilia

Family: Gekkonidae

6. *Hemidactylus brookii* Gray, 1845
Brook's house gecko
7. *Hemidactylus flaviviridis* Ruppel, 1840
Yellow-green house gecko
8. *Hemidactylus frenatus* Schlegel in: Dumeril & Bibron. 1836
Asian house gecko
9. *Hemidactylus triedrus* Daudin, 1802
Indian termite hill gecko
10. *Hemidactylus maculatus* Dumeril & Bibron, 1836
Spotted house gecko



Family: Agamidae

11. *Calotes versicolor* (Daudin, 1802)
Indian garden lizard
12. *Sitana ponticeriana* Cuvier, 1844
Fan-throated lizard

Family: Chamaeleonidae

13. *Chamaleo zeylanicus* Laurenti, 1768
Indian chameleon

Family: Scincidae

14. *Mabuya carinata* (Schneider, 1801)
Keelgrass skink
15. *Riopa punctata* (Gmelin)
Snake skink

Family: Varanidae

16. *Varanus bengalensis* (Daudin, 1802)
Bengal monitor

Suborder: Serpentes

Family: Typhlopidae

17. *Ramphotyphlops braminus* (Daudin, 1803)
Brahminy worm snake
18. *Typhlops acutus* (Dumeril & Bibron, 1844)
Beaked worm snake

Family: Boidae

19. *Eryx conicus* (Schneider, 1801)
Common sand boa
20. *Eryx johnii* (Russell, 1801)
Red sand boa
21. *Python molurus* (Linnaeus, 1758)
Indian rock python

Family: Colubridae

22. *Ahaetulla nasutus* (Anderson, 1898)
Common vine snake
23. *Amphiesma stolata* (Linnaeus, 1758)
Buff-striped keelback



24. *Argyrogena fasciolatus* (Shaw, 1802)
Banded racer
25. *Boiga trigonata* (Schneider, 1802)
Common Indian cat snake
26. *Dendrelaphis tristis* (Daudin, 1803)
Bronzeback tree snake
27. *Elaphe helena helena* (Daudin, 1803)
Common Indian trinket snake
28. *Lycodon aulicus* (Linnaeus, 1758)
Common wolf snake
29. *Macropisthodon plumbicolor* (Cantor, 1839)
Green Keelback
30. *Oligodon arnensis* (Shaw, 1802)
Banded kukri snake
31. *Ptyas mucosus* (Linnaeus, 1758)
Indian rat snake
32. *Xenochrophis piscator* (Schneider, 1799)
Checked keelback water snake
Family: Elapidae
33. *Bungarus caeruleus* (Schneider, 1801)
Common Indian krait
34. *Bungarus fasciatus* (Schneider, 1801)
Banded krait
35. *Naja naja* (Linnaeus, 1758)
Spectacled cobra
Family: Viperidae
36. *Daboia russelli* (Shaw & Nodder, 1797)
Russell's viper

Acknowledgment

I am thankful to Dr.A.Bhalla (CWLW-C.G.), Mr.A.K.Sahu (DFO-Jashpur), Mr.A.Mishra (Superintendent - Badalkhol Wildlife Sanctuary) and Dr. A.Sharma (TRDC-Tapkara) for financial support, hospitality and facilities provided during the field work. I am also thankful to Mr.M.Sinha



(Executive secretary - MPVHA, Indore) for help in making the awareness programme attractive and successful.

References

- Aengals R. & R.Rajaratnam (2001):** Reptilian Survey and Awareness Programme at Lafarge India Ltd. near Bilaspur, Cobra 45:1-4.
- Agarwal. H.P.(1976):** Fauna of Kanha National Park. Reptilia. Newsletter Zoological Survey of India 2 (6): 247-249.
- Agarwal H.P. (1981):** On a collection of reptiles from Madhya Pradesh. India. The Indian Journal of Zootomy 22(3): 203-206.
- Daniel, J.C. and T.G.Selukar (1964):** Occurance of fungoid frog *Rana malabarica* (Bibr.) at Jagdalpur, Bastar district, M.P. *Journal of Bombay Natural History Society* 60:743-744.
- Das, I (1997):** Checklist of the reptiles of India with English common names. *Hamadrayad* 22: 32-45.
- Murthy, T.S.N.(1985):** *A Field guide to the lizards of Western Ghats.* Records Zoological Survey of India. Occasional paper No. 72:1-51.
- Pillai R.S., P. Tamilarasan and M.S. Ravichandran, (1991):** Herpetological Survey of Narmada River Valley, Madhya Pradesh.2.Amphibia of Narmada Valley, *Cobra* 5: 12-14, 18-19.
- Sanyal D.P. and Dasgupta (1990):** On a collection of reptiles from Bastar district Madhya Pradesh, Central India. *Hamadrayad* 15 (1): 18-20.
- Sanyal, D.P.(1995):** Reptilia. In: Fauna of Conservation Areas No.6: Fauna of Indravati Tiger Reserve. Zoological Survey of India publication. Pp.77-83.
- Smith, M.A. (1935):** *Fauna of British India. Reptilia and Amphibia, Vol. 2. Sauria,* Taylor & Francis. London, iv + 440 pp.
- Smith, M.A. (1943):** *Fauna of British India. Reptilia and Amphibia, Vol. 3. Serpentes.* Taylor & Francis. London, xii + 584 pp.



HERPETOFAUNAL DIVERSITY OF DINDORI DISTRICT, MADHYA PRADESH

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Dindori district (c.22° 57' N, 81° 41' E) lies in the eastern part of Madhya Pradesh. The landscape of this largely tribal area is comprised of undulating hilly terrain with a large area under Sal (*Shorea robusta*) forests. Hitherto, nothing substantial was known about the herpetofaunal diversity of this area. This account deals 19 species consisting of 3 species of amphibians and 16 species of reptiles observed during the rainy season from June to September 2000 (Table 1). Smith (1943) and Sarkar (1993) were referred to for the identification.

References

Sarkar, A.K. (1993): Amphibia. In State Fauna Series 1: Fauna of Orissa, Part-4. Zoological Survey of India publication, pp. 39-49.

Smith, M.A. (1943): *Fauna of British India, Reptilia and Amphibia, Vol.3, Serpentes*. Taylor & Francis, London, xii + 584 pp.

Table 1. Amphibians and Reptiles of Dindori district

Class: AMPHIBIA	Common Asian toad
Order: Anura	Indian bull frog
Family: Bufonidae	Indian tree frog
<i>Bufo melanostictus</i> Schneider, 1799	Brook's house gecko
Family: Ranidae	Roux's forest lizard
<i>Hoplobatrachus tigerinus</i> (Daudin, 1803)	Indian garden lizard
Family: Rhacophoridae	Fan-throated lizard
<i>Polypedates maculatus</i> (Gray, 1834)	Keel'd grass skink
Class: REPTILIA	
Order: Squamata	
Suborder: Sauria	
Family: Gekkonidae	
<i>Hemidactylus brooki</i> Gray, 1845	
Family: Agamidae	
<i>Calotes rouxii</i> Dumeril & Bibron, 1837	
<i>Calotes versicolor</i> (Daudin, 1802)	
<i>Sitana ponticeriana</i> Cuvier, 1844	
Family: Scincidae	
<i>Mabuya carinata</i> (Schneider, 1801)	

Family: Varanidae

Varanus bengalensis (Daudin, 1802)

Suborder: Serpentes

Family: Typhlopidae

Ramphotyphlops braminus (Daudin, 1803)

Family: Boidae

Python molurus (Linnaeus, 1758)

Family: Colubridae

Amphiesma stolata (Linnaeus, 1758)

Dendrelaphis tristis (Daudin, 1803)

Lycodon aulicus (Linnaeus, 1758)

Ptyas mucosus (Linnaeus, 1758)

Xenochrophis piscator (Schneider, 1799)

Family: Elapidae

Bungarus caeruleus (Schneider, 1801)

Naja naja (Linnaeus, 1758)

Family: Viperidae

Daboia russelii (Shaw & Nodder, 1797)

Bengal monitor

Brahminy worm snake

Indian rock python

Buff-striped keelback

Common bronzeback tree snake

Common wolf snake

Indian rat snake

Checkered keelback

Common Indian krait

Spectacled cobra

Russell's Viper

**RECORD OF MARBLED BALLOON FROG
(UPERODON SYSTEMA) FROM JAMBUGHODA
WILDLIFE SANCTUARY AND ITS DISTRIBUTION IN
GUJARAT STATE**

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On 3rd August 2003, the first author received a small sized frog for identification from the third author. It was collected from Dhanpari village of Jambughoda, Panchmahal district, Gujarat. The Danpari village is located on the eastern border of Jambughoda Wildlife Sanctuary (22° 00'-23° 30'N lat. 73° 35'-73° 45' E long.) in Panchmahal and Vadodara districts, Gujarat. It was identified as the Marbled Balloon frog (*Uperodon systoma*) with the help of literature (Daniel, 1963 a & b). It was a 2.51 cm long gravid female, which laid about 120 small sized light brown-coloured eggs (average size 0.5 mm) on the 5th August 2003. The specimen was deposited with the Bombay Natural History Society, Mumbai for future reference (BNHS Reg. No.4213).

Ferguson (1904) recorded breeding of the species in June and July at Thiruvananthapuram, Kerala, south India. Daniel (2002) mentions that the breeding season of the species coincided with the rainy season and would vary with the advent of the rainy season in different areas of its distribution and the same was also noticed in the present observation.



Naik (1984) recorded the species for the first time from Gujarat at Vadodara. After that, it has not been recorded from other parts of Gujarat State. A small population of the species has been recorded by the second author at the Agriculture University campus, Anand (23° 32' N, 73° 00' E) every year in July-August. A dead specimen of the species was found from regurgitated food contents of a cattle egret (*Bubulcus ibis*) at a heronry at Chhatral village, Mahesana in August 1997.

Earlier, while on an amphibian survey, Vyas (1999) recorded ten species of frogs and toads belonging to four families from the Jambughoda Wildlife Sanctuary, but that did not include the present species. Thus the present record of the frog *U. systoma* is the first record from the Jambughoda Wildlife Sanctuary and other records indicate that the species is very widely distributed in Anand, Vadodara, Mahesana and Panchmahal districts of Gujarat State.

References

- Daniel, J.C. (1963a):** Field guide to the amphibians of western India. Part I. *Journal Bombay Natural History Society* 60(2): 415-438.
- Daniel, J.C. (1963b):** Field guide to the amphibians of western India. Part II. *Journal Bombay Natural History Society* 60(3): 690-702.
- Daniel, J.C. (2002):** The book of Indian Reptiles and Amphibians. *Bombay Natural History Society*, Mumbai, 238 Pp.
- Ferguson, H.S. (1904):** A list of Travancore Batrachians. *Journal Bombay Natural History Society* 15: 499-509.
- Naik, Y.M. (1984):** Occurrence of the marbled balloon frog *Uperodon systoma* (Schneider) in Baroda, Gujarat State. *Journal Bombay Natural History Society* 81:488-489.
- Vyas, R. (1999):** A preliminary survey on amphibian fauna of Jambughoda Wildlife Sanctuary, Gujarat. *Frog leg* 3(2): 2-3.



THE GREEN POND FROG (*RANA HEXADACTYLA*) IN A VILLAGE POND IN KANCHEEPURAM DISTRICT, TAMILNADU

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Introduction

The Green pond frog is one of the common amphibians found in the water bodies of Kancheepuram district in Tamilnadu. The colouration of the frog varies from blackish to different shades of green depending on the locality. This frog is aquatic and spends a major part of its life in and around fresh water. This frog has large bulging eyes which enable it to see without coming out of the water. In the period prior to the protection of this frog by law and the ban imposed on export of frog legs, there was excessive slaughter for its legs, which is considered a delicacy in some countries. Even now there is exploitation for its legs, but to a lesser extent. Kannanthangal is a village located remotely in the Kancheepuram district of Tamilnadu. Farming is the major occupation of the people and paddy is sown after the monsoon rains in November. Although there is water scarcity in summer, there is some water left in the village ponds. There are three major ponds in Kannanthangal. They are the thangal, the lily pond and the village pond. The lily pond has the maximum number of frog species. The pond that was selected for the study was the village pond. Green pond frog aestivates in the summer months if there is no water in the pond.

Study Area

The village pond at the center of the village was chosen to study the various size classes of the green pond frog. This is an artificial pond which was constructed to meet the local needs of the people. In early May in the year 2003, the depth of water was 1.5 m with spread of 50 sq.m.,

The water is black in colour because of the soil. The pond is surrounded by tamarind trees and huts. Normally this pond does not dry up during the summer.

Methodology

For measuring the length, the frogs were caught with nets. One part of the bottom of the pond was dredged with nets operated by two persons to catch the frogs that had dived to the bottom. Close to twenty such attempts were made for collecting one sample. The frogs were collected in a plastic bag. These were later released into the pond after taking measurements. The length between the tip of the snout and the vent was recorded with a transparent ruler. Samples were taken on two different days. The frogs were tagged with rubber bands to estimate the total population. The tags were tied on the right hind leg.

TABLE I

Sample I: Date: 07.03.03 Time : 11: A.M-12-30 P.M.

Sample II: Date: 28.04.03 Time: 11:00 - 11.30 A.M.

Name: Green pond frog (*Rana hexadactyla*)

S. No.	SAMPLE I (cm)	SAMPLE II (cm)
1	4.8	6.0
2	6.3	3.5
3	5.9	6.0
4	4.3	5.5
5	7.1	6.6
6	8.4	6.6
7	6.3	4.0
8	7.0	4.3
9	5.5	3.9
10	6.2	3.8
11	7.0	4.0
12	5.5	4.0
13	6.5	6.8
14	5.8	6.3
15	5.2	4.5

S. No.	SAMPLE I (cm)	SAMPLE II (cm)
16	4.8	4.5
17	4.4	4.0
18	4.6	4.8
19	4.0	3.5
20	4.3	3.0
21	4.5	4.0
22	4.5	5.5
23	4.4	3.5
24	3.8	4.0
25	3.4	4.0
26		4.0
27		4.0
28		3.0
29		3.5
30		7.0

The range in size was from 3.0 – 8.4 cm for both the samples. These have a mean of 4.96 with a standard deviation of 1.24. There are very few frogs in the over 7.0 category. Frogs of this size were observed by visual sighting in the lily pond. The main water body, which is the large village lake, had no water during the study period. There is a proposal to desilt the large lake and increase its water holding capacity. There is a need to study the reproductive biology of the green pond frog to assess the impact of the desilting operations. The present study was a brief one. A more exhaustive one is required to draw conclusions on the population dynamics of the green pond frog.

Acknowledgement

My sincere thanks to Dr.R.J.Ranjit Daniels of Care Earth for giving financial support and acting as guide for this small project. My thanks also go to Dr.Jayshree Vencatesan, Joint Director Care Earth and her family for giving me moral support during the study. I am greatly indebted to the Collector of Kancheepuram for granting permission to do the project.



NOTES ON AN EVENT IN A VILLAGE POND

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I remember this incident very well because it gave me an insight into the attitude of the village community towards Nature. The name of the village is Kannanthangal and it is located in Kancheepuram district of Tamilnadu. It was in the month of May 2003 after the first monsoon showers. There was a lily pond at one end of the village which was home to a great diversity of animals. Villagers harvest the lily pond almost comprehensively every year. In the year 2003, I witnessed this event. The villagers arrived in groups and started preparing for the harvest. Women, children and old people were present along with the local youth. In the first phase, the vegetation, that is, the lily was removed manually. A white-breasted water hen gave an alarm call and ran out of the plants for safety. Nets were set at one end of the pond and people thrashed the water from the other end to make the fish run into the nets. Initially, nothing was seen. Then somebody shouted 'Aamai' which means turtle in Tamil. A turtle, which had burrowed into the mud to escape detection, was caught. Close to fifteen such mud turtles were caught and thrown on to the shore. The next to follow were the pond frogs, which were jumping all around because of the disturbance. It was surprising to see such a large population of frogs in so small a water body. Then came the water snakes which were caught by some brave lads. Finally the fishes were forced into the nets. People came from all around the pond for their share in the catches. There was a lot of excitement in the air. It was clear that all this was not new and that this was an event which happened every year before summer. If the fishes and other fauna were left in the pond most of them might have died due to lack of water in summer.



CAT SNAKE FEEDING ON GARDEN LIZARD

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On 6th May 2003, in the early hours of the night (20:35 hrs), after returning from a vulture survey, I was sitting outside the guesthouse in the Pench National Park. Suddenly, I noticed something falling from a Neem tree *Azadirachta indica*. When I approached closer I found a snake coiled round a garden lizard *Calotes versicolor*. The snake was identified as the cat snake *Boiga trigonata*.

After about 10 minutes, the snake loosened its grip around the lizard. It started swallowing the lizard head first and it took 11 minutes to finish it. After a 5 minutes rest, the snake climbed back on the same tree.

The garden lizard is diurnal and inactive during nights irrespective of weather conditions. The lizard just rests or sleeps under a bush or on the trunk or branches of a tree (Subha Rao, 1974). The cat snake is known to be nocturnal and an arboreal snake. Thus the nocturnal predator takes advantage of its prey's habit of retreating at the onset of dusk.

Reference

Subha Rao, (1974): Behaviour of agmid garden lizard *Calotes versicolor*. *Journal of Bombay Natural History Society*, Mumbai. 71:1. Pp. 148.



AN ENCOUNTER WITH A SAW-SCALED VIPER (*ECHIS CARINATUS*)

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As a kid, I was also interested, like most other kids, in having a pet at home. However, when I took a pet home, my parents would simply not allow it. The reason was not that they were not interested in pets or they disliked animals but because of the kind of pet I had taken home. They would have accepted a dog or a cat or a parakeet or, for that matter, even a guinea pig! But the pet I wanted to have was a snake – a creature that had always fascinated me but, obviously, not my near and dear ones.

It was a vine snake (*Ahaetulla nasutus*) – a non-venomous snake. The snake is called '*Kan kothi paambu*' in Tamil meaning 'snake that strikes at your eyes'. My parents believed that the snake would behave true to its name and no amount of my explanation would convince them at first that the belief was just a myth and that the snake was a harmless one. It took me some time to make them believe me. The snake was with me for a few weeks before I released it into the wild.

As I grew up, my attitude towards snakes changed. I was happy to observe them in their natural environment – free and wild. Today I catch snakes only for their rescue and translocation to save them from being killed.

It was during one such occasion that I was forced into an experience that would not be easy to put out of my mind. A colleague of mine called to say that a snake had got into his room and wanted me to remove it. I went there and, after a search, I saw the snake coiled on to the leg of a chair. It was a saw-scaled viper (*Echis carinatus*).



The saw-scaled viper is one of the most venomous of snakes. The snake gets its name 'saw-scaled' from its habit of rubbing its lateral scales to produce a rasping sound. It is known for its temper and quick attack. Its venom is highly toxic. The snake is commonly found throughout India.

I was pretty confident and comfortable in handling this snake. The snake also seemed to be quite passive and it did not show any sign of aggression and not even its customary rubbing of scales. Much to the relief of my friend, I was able to catch the snake and deposit it in a bag.

On my way back, I stopped at another friend's house to show the snake to the kids there. The kids were quite excited when I took out the snake from the bag and placed it on a table. The snake immediately assumed its warning posture and started making its rasping noise. I started explaining the snake's posture and how quickly it could strike. Least did I realize that I was about to make a very convincing demonstration!

The problem arose when my friend's wife entered the room and was horrified to see a snake on her table and started screaming. She was in no mood to listen to me and I was left with no other option but to remove the snake in order to quieten the woman. My jerky movements, I think, alarmed the already agitated snake. It moved like lightning and struck my left-hand index finger. It was so fast that I did not even realise that I was bitten. The bite was a little below my nail and I could see two distinct pinpoints – the snake's fang marks. I secured the snake inside my bag.

It was around 05:30 p.m. I did not panic even though the pain was quite awful. I instantly tied a cloth around my wrist assuming that it would slow down the venom circulation. Then I washed the wound with water. I did not want to suck the blood out as I thought I might have some cut in my mouth and the venom might reach my system through that. I then had a cup of coffee. I could feel the pain intensifying and a serum-like fluid was oozing out of the wound.



It was 05:45 p.m. and we were trying to get in touch with a doctor over the phone. The pain was becoming increasingly unbearable. My finger was getting swollen and I was feeling a heaviness in the chest. All the same, I was also trying my best to keep track of what was happening to me and to keep the people around sane. By this time, my friend was able to get in touch with the doctor who advised immediate medical attention. But the hospital was about five kilometers away from where I was. We might have moved not even half a kilometer by vehicle when I started feeling dizzy and affected with nausea. I could feel that I was losing my consciousness and my vision was getting blurred. For a few moments I did not know what was happening but, fortunately, I was sufficiently alert to ask my friend to take me to the nearest nursing home.

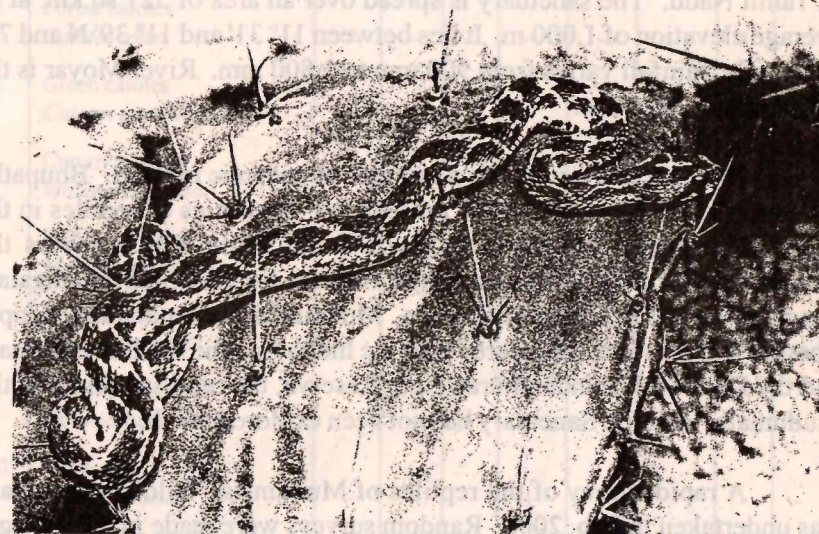
Within a couple of minutes, we reached a nursing home. It was around 06.00 p.m. Surprisingly, when I reached there, I was quite alert and was able to get down from the vehicle without any assistance and to move to the reception. I told the lady at the reception that I would like to be treated for snakebite. She immediately looked around and asked who the patient was. My calm demeanour must have made her ask this question and her expression changed when I told her that I was the patient. I was rushed to a ward by stretcher and the doctor on duty enquired about the kind of snake that had bitten me. I responded by promptly taking out a box from my trouser pocket and producing the live snake inside. The doctor and his attendants were aghast. I was duly admonished for my daring and carelessness. I gave the box to my friend and requested him to release the snake in the wild (which he did to my relief).

The doctor then checked my blood pressure and assured me that the anti-venom had been sent for as they did not have it in stock and everything would be OK. After twenty minutes of waiting, I was administered anti-venom. I was experiencing severe pain and also in my ankles. As I was quite alert and conscious, I wanted to get discharged. But the doctor firmly said no and wanted me to immediately get admitted for observation.



I had to spend the night in the hospital. I called my mom to say that I had some office work and would not come home for the night. Till this day none of my family members knows about this incident (I hope they don't read this). Next morning, the doctor came for the check up. He informed me that my urea level had shot up and advised that I visit him daily for a week.

I continued my visits to the nursing home and it took several days for me to recover.





REPTILES OF MUDUMALAI WILDLIFE SANCTUARY, TAMIL NADU

V.Kalaiarasan
Chennai Snake Park
Chennai - 600 022

The Mudumalai Wildlife Sanctuary is located in the Nilgiri District of Tamil Nadu. The sanctuary is spread over an area of 321 sq.km. at an average elevation of 1,000 m. It lies between 11° 31' and 11° 39' N and 76° 43' E. The rainfall varies from 900 mm to 1,800 mm. River Moyar is the major source of water.

The sanctuary supports a number of endemic reptiles. Bhupathy and Kannan (1997) reported the presence of 45 species of reptiles in the Nilgiri Biosphere Reserve portion of Tamil Nadu which covers the Mudumalai Wildlife Sanctuary, Moyar Reserve Forests, Sathyamangalam Reserve Forests, Thengumarahada, Mukkurthi National Park, Upper Bhavani and Siruvani. Compared with the Indira Gandhi Wildlife Sanctuary and the Kalakkad Mundanthurai Tiger Reserve, the reptilian fauna of the Mudumalai Wildlife Sanctuary has not been explored much.

A rapid survey of the reptiles of Mudumalai Wildlife Sanctuary was undertaken in Feb. 2000. Random surveys were made in all the eight blocks, namely, Benne block (BB), Doddagatti block (DB), Jayadev Avenue (JA), Karukudi block (KB), Manradiar Road (MRd), Moyar-Avarahally block (MAB), Mudumalai Block (MB) and Theppakadu Block (TB). During the survey, one species of turtle, 8 species of lizards and 4 species snake recorded. List of reptiles recorded is given below:



REPTILES RECORDED IN THE MUDUMALAI WILDLIFE SANCTUARY IN FEB. 2000

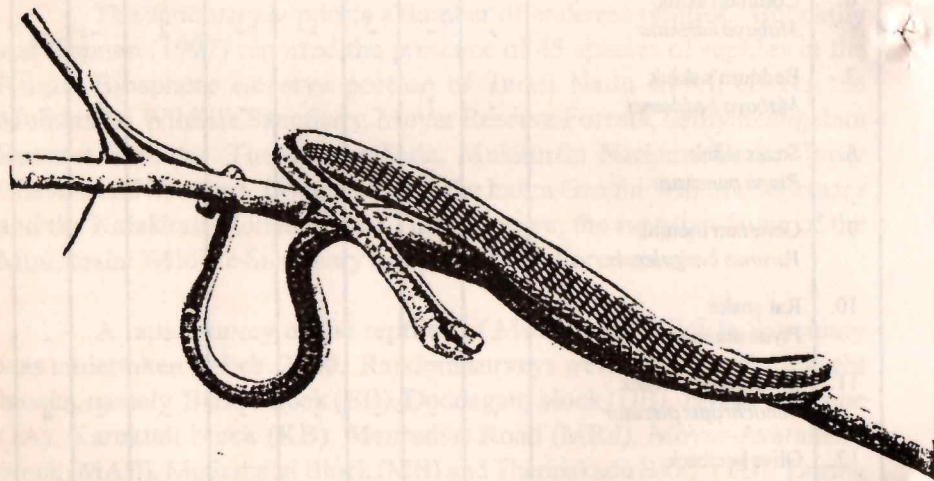
S.No.	Species	BB	DB	JA	KB	MRD	MAB	MB	TB
1.	Pond turtle <i>Melanochelys trijuga</i>	1	-	-	-	-	-	-	-
2.	Brook's lizard <i>Hemidactylus brookii</i>	-	-	-	-	-	-	-	1
3.	Garden lizard <i>Calotes versicolor</i>	-	-	-	-	-	4	-	-
4.	Forest calotes <i>Calotes rouxi</i>	-	-	-	-	-	-	1	-
5.	Green calotes <i>Calotes grandisquamis</i>	-	-	-	-	-	-	1	-
6.	Common skink <i>Mabuya carinata</i>	-	-	-	-	-	2	-	-
7.	Beddom's skink <i>Mabuya beddomei</i>	-	1	-	-	-	-	-	-
8.	Snake skink <i>Riopa punctata</i>	-	-	1	-	-	-	-	-
9.	Common monitor <i>Varanus bengalensis</i>	1	-	-	-	-	1	-	-
10.	Rat snake <i>Ptyas mucosus</i>	-	-	-	1	-	-	-	-
11.	Checkered keelback <i>Xenochropis piscator</i>	-	-	-	-	-	-	-	4
12.	Olive keelback <i>Atretium schistosum</i>	-	-	-	-	-	-	-	1
13.	Common cobra <i>Naja naja</i>	-	-	-	1	-	-	-	-

Acknowledgements

I am grateful to Mr.B.Vijayaraghavan, I.A.S.,(Retd.), Chairman, Chennai Snake Park Trust for funding and Dr.S.Paulraj, I.F.S., former Wildlife Warden, Mudumalai Wildlife Sanctuary for granting permission to carry out the work. My sincere thanks are recorded to Late. Dr.V.Krishnamurthy, Trustee, Chennai Snake Park Trust, Mr.A.Nixon, Research Scholar and Mr.C.Subbramaniyan, Biologist and Mr.S.P.Subbiah, Chennai Snake Park for their help during the field visit.

Reference

Bhupathy, S. and P.Kannan (1997): *Status of Agamid Lizards in the Western Ghats of Tamil Nadu, India*, Salim Ali Centre for Ornithology and Natural History, India.



A NOTE ON CONDITIONING IN STARRED TORTOISE *GEOCHELONE ELEGANS* (SCHOEPFF) FOR YELLOW COLOURED FOOD

M.M.Saxena

Editor

Oikoassay

7P3, The Roost, Pawanpuri (South)

Bikaner - 334 003

In the State of Rajasthan, starred tortoise *Geochelone elegans* (Schoepff) inhabits the entire Aravalli range and seldom strays into the plains. It is especially active during the monsoon period in this otherwise climatically hostile region.

Present observations were made during monsoon on two such tortoises which were located in a housing colony in Dungarpur, a hilly tribal town in southern Rajasthan situated amidst the Aravallis. The tortoises actively foraged upon soft grasses. They were offered vegetables of which they were found to prefer chopped yellow pumpkin among all kinds of food available – natural as well as supplied ones. In view of the preference shown by them, they were regularly provided with chopped yellow pumpkin. The tortoises appeared to have got conditioned to the yellow colour of the pumpkin. They would attempt to eat any yellow object available in their surroundings whether edible or not. When paper strips of different colours were offered to them, they were preferentially attracted towards the yellow ones and tried to nibble them. The observation was, however, too brief to provide any conclusive evidence.



SHED SNAKE SKIN IN THE DIET OF THE JERDON'S BULL FROG *HOPLOBATRACHUS CRASSUS* (JERDON)

S.Sivakumar and Ranjit Manakadan

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The food and feeding habits of some common Indian frogs have been recorded by Andrews 1979, George and Andrews 1995, Mathew and Andrews 2001. The prey of Indian frogs consists largely of invertebrates (mainly insects), and fish, amphibians, reptiles, birds and mammals (Daniel, 2002).

Stomach contents of a gravid female Jerdon's bull frog *Hoplobatrachus crassus* collected from Sriharikota Island, Nellore district, Andhra Pradesh on 30th October 2003 contained bits of the shed skin of a snake. The pieces of skin were found in the stomach and the entire length of the intestine along with the remains of various insects. Shed skin (possibly its own) has been reported in the stomach contents of the skink *Mabuya frenata* (Vrcibradic and Rocha 1998). Though snakes (even up to a meter long) have been reported in the diet of some frog species (Daniel, 2002), this is apparently the first case of shed skin of snakes being noticed as a food item of frogs.

References

Andrews, M.I (1979): Food and feeding habits of *Rana hexadactyla* Lesson. *Journal Bombay Natural History Society* 76:175-179

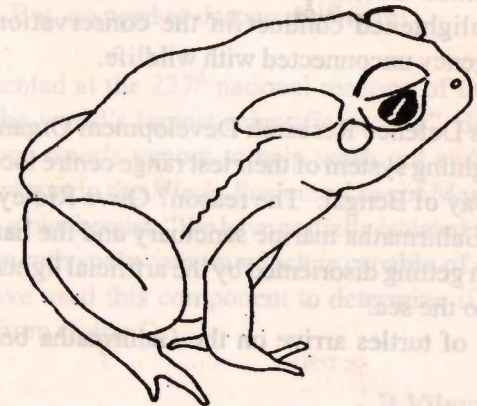
Daniel, J.C. (2002): The Book of Indian Reptiles and Amphibians. Oxford University Press, Mumbai.



George, S. and M.I.Andrews. (1995): Food and feeding habits of *Rana hexadactyla* Lesson in Kuttanad, Kerala. *Journal Bombay Natural History Society* 92:220-224.

Mathew, M. and M.I. Andrews (2001): Food spectrum of the Common Indian Toad *Bufo melanostictus* Schneider. *Journal Bombay Natural History Society* 98 (1):38-46.

Vrcibradic, D. and C.F.D. Rocha (1998): The ecology of the skink *Mabuya frenata* in an area of rock outcrops in southeastern Brazil. *Journal of Herpetology* 32 (2): 229-237.





RANDOM HARVEST

This croc. has reasons to crow.

It is no mean achievement for a mere non-human animal to beat politicians, film stars, sports idols, corporate celebrities and the like and be nominated as the 'Personality of the Year, 2003' by Hong Kong's Radio Station RTHK. According to a report in the *Week* of Jan. 18, 2004, this distinction has been secured by an escaped pet crocodile which has been running loose on the Hong Kong - China border since Nov.2003, cocking a snook at crocodile hunters from Australia and China trying to capture it.

Enlightened!

The *Hindu Business Line* of Feb. 5, 2004 brings to us a rare instance of enlightened conduct in the conservation of wildlife by a government agency unconnected with wildlife.

India's Defence Research Development Organisation (DRDO) is masking the lighting system of their test range centre located at the Wheeler Island in the Bay of Bengal. The reason? Olive Ridley turtles are nesting at the nearby Gahirmatha marine sanctuary and the hatchlings have to be prevented from getting disoriented by the artificial lights which will impede their journey to the sea.

Lakhs of turtles arrive on the Gahirmatha beach every year for laying eggs.

The DRDO has also set up a surveillance camp in and around the inner and outer Wheeler Island to ensure the safety of the Olive Ridley during the nesting season.



A well-endowed amphibian.

The *Hindu Business Line* of Mar. 7, 2004 quotes a report from Agency France-Presse about the discovery of a frog with three croaking heads and six legs. The frog was spotted in Weston-Super-Mare, southern England. The abnormality could be due to damage to the embryo or mutation caused by environmental or other factors.

It'll all come out in the wash.

After stabbing Duncan to death, Shakespeare's Macbeth wails:
"Will all great Neptune's ocean wash this blood
Clean from my hand? No, this my hand will rather
The multitudinous seas incarnadine,
Making the green one red".

It would have been worse if he had wanted to get rid of the blood on his clothes. But, no need to despair any more!

A paper presented at the 227th national meeting of the American Chemical Society, "the world's largest scientific society", deals with an enzyme extracted from viper's venom to help wash out stubborn blood spots on clothing. A report in the *Hindu Business Line* of March 31, 2004 quotes Davin Iimoto, a biochemist: "We have partially isolated a component of the Florida cottonmouth snake venom which is capable of dissolving a blood clot and we have used this component to determine if it will help remove blood stains from clothes".

- B.Vijayaraghavan.

A well-endowed amphibian

LEWIS H. HARRIS

The Florida Business Line of Mar. 7, 2004 quotes a report from Agency France-Press about the discovery of a frog with three crossing heads and six legs. The frog was spotted in Weston Super-Mare, England. The abnormality could be due to damage to the embryo or mutation caused by environmental or other factors.

It'll all come out in the wash. A frog rubbing its face in a wash basin to clean its face. A frog rubbing its face in a wash basin to clean its face.

Will it wash out in the wash? Will it wash out in the wash? Will it wash out in the wash?

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**AIMS AND OBJECTIVES OF
CHENNAI 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 undertake captive breeding of vulnerable species of snakes and other reptiles.
- iii) To promote knowledge on snakes, and other reptiles and amphibians and dispel the erroneous beliefs about them.
- iv) To aid and assist research on reptiles and amphibians.
- v) To provide facilities for the identification and classification of snakes and other reptiles and amphibians and, for this purpose, maintain a museum of study collections.
- vi) To maintain a library of books and other literature on reptiles and amphibians.
- vii) To publish scientific and semi-scientific literature on snakes and other reptiles and amphibians.
- viii) To undertake survey on the distribution and status of snakes and other reptiles and amphibians.
- ix) To provide consultancy services on snakes and other reptiles.
- x) To provide a common forum for interaction among amateur scientists and friends of reptiles and amphibians.