



# ENVIS

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## WILDLIFE OF TAMIL NADU

ENVIS Centre, Department of Environment, Government of Tamil Nadu  
Panagal Building, No.1, Jeenis Road, Saidapet, Chennai-600 015. Tel: 044 24331243  
Fax: 044 24336594 Email: [tn@envis.nic.in](mailto:tn@envis.nic.in) Website: [www.tnenvis.nic.in](http://www.tnenvis.nic.in)

## WILDLIFE OF TAMIL NADU

The forests of Tamil Nadu have undergone drastic changes over the period. The scientific forest management began in 1806. The British managed forests for timber, followed by establishment of Plantation forestry, with silvicultural practices. The forests were managed by bringing the forest administration under state control and through well drawn out Working Plans. Yet the dependency on forests for fuel wood, small timber, fodder from the fringe villages continued unabated, leading to degradation of the forest resources and the ecosystem and also led to fragmentation of the once contiguous forests into patches. This also led to human-wildlife conflicts, which continue even today.

Tamil Nadu is a home for a rich diversity of flora and fauna, and has set aside about 20 % of its forest area under the protected area network comprising of 8 wildlife sanctuaries 12 bird sanctuaries, 5 National Parks, 3 Tiger Reserves, 4 Elephant Reserves and 3 Biosphere Reserves for in situ conservation of wild fauna and flora. The Tamil Nadu State has an impeccable history of being a pioneer in protecting and conserving biodiversity. In spite of the best efforts taken over the years in the conservation of biodiversity, the State is still facing challenges to protect its indigenous biodiversity due to various anthropogenic factors.

### Floral Diversity

The Angiosperm diversity of India includes 17,672 species. With 5640 species, Tamil Nadu ranks 1st among all the States in the Country. This includes 533 endemic species, 230 red-listed species, 1559 species of medicinal plants and 260 species of wild relatives of cultivated plant.



The Gymnosperm diversity of the country is 64 species of which Tamil Nadu has 4 species of indigenous Gymnosperms and about 60 introduced species. The Pteridophytes diversity of India includes 1022 species of which Tamil Nadu has about 184 species. Tamil Nadu wild plant diversity also includes vast number of Bryophytes, Likens, Fungi, Algae and Bacteria.

### Faunal Diversity

The faunal diversity of Tamil Nadu includes 165 species of fresh water fishes, 76 species of amphibians, 177 species of reptiles, 454 species of birds and 187 species of mammals. According to the CAMP reports the red-listed species include 126 species of fishes, 56 species of amphibians, 77 species of reptiles, 32 species of birds and 40 species of mammals.



The endemic fauna includes 36 species of amphibians, 63 species of reptiles, 17 species of birds and 24 species of mammals. Schedule I animals include 22 species of mammals, 42 species of birds and 9 species of reptiles. Schedule II animals include 13 species of mammals. Schedule III animals include 5 species of mammals. Schedule IV animals include 5 species of mammals, 367 species of birds, 109 species of reptiles and 23 species of Amphibians. Schedule V animals include 13 species of mammals and 1 species of birds.

### Need for wildlife conservation

Wildlife and wildlife habitats which are products of millions of years of evolution should be conserved and sustainably managed to meet the social, economic, ecological, cultural, and recreational needs of the present and future generations. Water, wilderness and wildlife are

intimately and irrevocably linked. Wilderness areas and particularly forests which are the repository of wildlife and biodiversity have shrunk due to anthropogenic pressures. Forests and other wildlife habitat recharge aquifers, maintain water regime and moderate impacts of floods, droughts and cyclones and thereby they ensure food security and regulate climate change. Conservation of biodiversity is directly linked with conservation of eco-systems and thus ensure water and food security. The ecological security of the State as a whole and economic well being of the people nearby through water and food security can only be achieved by conserving our biodiversity in perpetuity without any reservation.

Forests and the wilderness areas in Tamil Nadu are the treasure-house for multitude of biodiversity. They are also the repository and virtual pharmaceutical factories of an array of medicinal plants. These areas forms the best underground water tank holding volumes of precious pure water which are released gradually into the streams, rivers and wells. They form the carbon sink, sucking and storing the lethal carbon-di-oxide thus mitigating climate change. They are the natural lungs providing vital oxygen for all the living things to breathe.

### **Strategies adopted by the Tamil Nadu Forest Department for Wildlife conservation**

- Absolute protection for the wildlife and wildlife habitats.
- Eco-development works in and around protected areas to benefits the occupants to ensure their support and willing participation in wildlife conservation.
- Take fire prevention and control measures in and around Sanctuaries.
- Construction of crop protection structures like fences, trenches and walls to reduce man-animal conflict.
- Prevention of outbreak of contagious diseases among wild animals by taking prophylactic measures among domestic animals entering Sanctuaries and National Parks.
- Identification and restoration of corridors to facilitate free movement of animals between and around Protected Areas.

Source: Tamil Nadu Forest Department website – [www.forests.tn.nic.in](http://www.forests.tn.nic.in)

### **The importance and the role of the Wildlife Protection Act, 1972**

The Wildlife Protection Act, 1972 is a landmark in the protection of wildlife in India. The Indian Board of Wildlife (IBWL) was constituted in the year 1952 after the independence which took the task of preserving the natural wildlife habitats and saving the animals from probable extinction. The major highlights of the Act are:

**Prohibition of Hunting:** Hunting of wild life animals is strictly prohibited under this act but can be permitted in certain cases such as when the animals become dangerous to human life or is so disabled or diseased as to be beyond recovery. It can happen only after the release of permit from Chief Wildlife Warden to hunt the animal and is recorded in written.

**Prohibition of picking, uprooting specified plants:** No person is allowed to willfully pick, uproot, damage, acquire or collect any specified plant from an area specified and preserved by the Government for wildlife. Special permissions can be granted by the Chief Wildlife Warden for the purpose of education, scientific research etc.

**Sanctuaries, National Parks and Protected Areas:** Any area with adequate ecological, faunal, floral, natural or zoological significance can be declared as Sanctuary by the Government to develop wildlife or its environment. No person is allowed to enter and reside in the sanctuary except in condition of a permit granted. No person is allowed to tease or molest any wild animal. The same holds true for National parks and Protected areas.

Source: Keshav Saini in <http://www.environmentabout.com>

# CRITICALLY ENDANGER



The Large Rock Rat or Elvira Rat (*Cremnomys elvira*) is a medium sized, nocturnal and burrowing rodent that is endemic to India.

**Habitat:** Tropical dry deciduous shrub land forests, seen in rocky areas.

**Threats:** Major threats are habitat loss, conversion of forests and fuel wood collection.

The population of White-backed Vulture (*Gyps bengalensis*), has declined by 99%. Vultures keep the environment clean by scavenging.

**Habitat:** Forests, villages etc.

**Threats:** A major threat to vultures is the painkiller diclofenac used by veterinarians to treat cattle. When vultures consume these carcasses, diclofenac enters their system, but they are unable to metabolize it.



The Spoon Billed Sandpiper (*Eurynorhynchus pygmeus*) requires highly specialized breeding habitat, a constraint that has always kept its population scarce. India is home to some of the last existing wintering grounds of this species (estimated at only 150-320 breeding pairs worldwide).

**Habitat:** Coastal areas with sparse vegetation.

**Threats:** Habitat degradation and land reclamation. Human disturbance also leads to high incidence of nest desertion.

The Hawksbill Turtle (*Eretmochelysimbricata*) is a heavily exploited species. The species is migratory in nature and nesting occurs in about 70 countries across the world. Maturation is slow and is estimated between 25 – 40 years.

**Habitat:** Nesting occurs on insular, sandy beaches.

**Threats:** Turtle shell trade, egg collection, slaughter for meat, oil pollution and destruction of nesting and foraging habitats.



Sispara day gecko (*Cnemaspis sisparensis*) is a large gecko which dwells usually in forests; it is largely insectivorous and is active by night.

**Habitat:** Forests

**Threats:** Habitat conversion and modification.

The Anamalai Flying Frog (*Rhacophorus pseudomalabaricus*) is confined to rainforests of southwestern Ghats.

**Habitat:** In rainforests at elevations greater than 1,000 m above mean sea level.

**Threats:** Conversion of forest to cultivated land outside the Indira Gandhi National Park, and extraction of wood and timber by local people are the major threats to this species



# CRITICALLY ENDANGERED ANIMALS OF TAMIL NADU

The Kerala Indian Frog (*Indirana phrynoderma*) due to the presence of prominent warts and tubercles of various sizes and glandular folds on its dorsal surface, is commonly also known as the toad-skinned frog.

**Habitat:** Forests at elevations of around 500 m above mean sea level.

**Threats:** Habitat loss due to subsistence wood collection is the major threat to this species.



The Griet Bush Frog (*Raorchestes griet*) is a small frog of snout to vent length ranging from 2-2.2 cm only.

**Habitat:** Forests at elevations between 600-1, 800 m above mean sea level.

**Threats:** Habitat fragmentation due to tea and eucalyptus plantations. It is not likely to survive in the face of extensive habitat loss.

The Large Ponmudi Bush Frog (*Raorchestes ponmudi*) is the largest bush frog of India with a snout to vent length upto 4 cm.

**Habitat:** Forests of Ponmudi and Agasthyamalai Hills

**Threats:** Habitat decline and the rate of forest loss is likely to further intensify due to the expansion of surrounding tea plantations.



The Sushil's Bush Frog (*Raorchestes sushili*) was discovered in 2009 in Andiparai Shola, Valparai in the Western Ghats of Tamil Nadu.

**Habitat:** Known only to occur in Valparai, at an altitude of around 600 m above mean sea level.

**Threats:** Habitat loss due to small and largescale agricultural activities such as tea and coffee cultivation in the Anamalai Hills.

The Rameshwaram Ornamental or Rameshwaram Parachute Spider (*Poecilotheria hanumavilasumica*) was recently described in 2004, and is only found in India. It can give a nasty bite which usually is not fatal. The species is semi-social, which means they live partly in groups.

**Habitat:** Arboreal and tend to live in hiding.

**Threats:** Major threats causing the disappearance of this species is habitat alteration and degradation.



The Ooty Tarantula, or Peacock Tarantula (*Poecilotheria metallica*) is steel blue in colour with patches of intense orange-yellow, black and white.

**Habitat:** Wooded mountain area of south India.

**Threats:** They are one of the most expensive spiders in the illegal pet trade. Large areas where the species occurs have been deforested, or subjected to habitat degradation.

## EVENTS

### Inauguration of Enviro-Club at Quaid E Milleth College for Women, Chennai

The Enviro-club of Quaid-E-Milleth College for Women, Chennai was inaugurated by Dr. H. Malleshappa, I.F.S., Director, Department of Environment on 19<sup>th</sup> October 2012. He also delivered the Inaugural address and highlighted the need for Solid waste management in college campuses as it would help in reducing the solid waste output of the Chennai city which is about 4000 metric



tones per day. He also spoke about the need to conserve the rivers Coovum and Adyar from pollution as they are the two major rivers in the city. He also pointed out that the women students are the key for environmental conservation for the next generation. Other environmental experts like Dr. Sultan Ahmed Ismail also participated in the inauguration ceremony.



### Visit of the Hon'ble Minister for Environment to the Department of Environment

The Hon'ble Minister for Environment Thiru M.C. Sampath, visited the Department of Environment, Government of Tamil Nadu, Chennai-15 on 29<sup>th</sup> October 2012 to review the activities of the Department of Environment. Thiru C.V. Sankar, I.A.S., Principal Secretary to Government, Environment and Forests Department, Dr. H. Malleshappa, I.F.S., Director of Environment, Thiru.V.Thangavelu I.A.S (Retd), Chairman, SEIAA along with other senior officials of the Department of Environment and SEIAA were present during the review. Dr. H. Malleshappa, I.F.S., highlighted the various activities of the Department of Environment. The Hon'ble Minister for Environment appreciated the various initiatives taken by the Department of Environment.



### Smokeless Deepavali awareness campaign at R. K. M. Saradha Vidyalaya, Girls Hr. Sec. School, T. Nagar, Chennai

A Smokeless Deepavali awareness campaign was conducted by the Department of Environment, Government of Tamil Nadu at R. K. M. Saradha Vidyalaya Girls Hr. Sec. School, T. Nagar., Chennai on 12<sup>th</sup> November 2012 at 09.00 AM. The Director of Environment, Dr. H. Malleshappa, I.F.S., read an oath on Smokeless Deepavali and flagged off the Smokeless Deepavali awareness campaign. More than 1000 students and general public participated in this event. A human chain was formed by the school students and they distributed awareness pamphlets on Smokeless Deepavali to the general public and commuters who were using public transport.



## Anti-plastic campaign at Lady Wellington Govt. Girls Hr. Sec. School, Triplicane.

The Department of Environment, Government of Tamil Nadu conducted an anti-plastic use awareness campaign and released short films on Environmental Conservation at Lady Wellington Govt. Girls Hr. Sec. School, Triplicane, Chennai on 27<sup>th</sup> November 2012 at 09.00 AM. The Director of Environment, Dr. H. Malleshappa, I.F.S., welcomed the dignitaries, government officials and the general public. The programme was presided by Worshipful Mayor, Chennai Corporation, Thiru Saidai Duraisamy who addressed the gathering and released the short films on Environmental Conservation. The Hon'ble Minister for Environment Thiru M.C. Sampath read an oath on anti-plastic use and flagged off the Anti-Plastic Use awareness Campaign. Thiru C.V. Sankar, I.A.S., Principal Secretary to Government, Environment and Forests Department also addressed the gathering. Members of legislative Assembly, Chennai Corporation officials, Government Officials and more than 1500 students and general public participated in this event.



## National Green Corps awareness programme at Nungambakkam, Government Girls Higher Secondary School, Chennai.

Dr. H. Malleshappa, I.F.S., Director of Environment, participated in National Green Corps awareness programme conducted at Nungambakkam, Government Girls Higher Secondary School on 22<sup>nd</sup> November 2012. The welcome address was given by Mrs. D. Elizabeth Vijayarani, Headmistress, Nungambakkam,



Government Girls Higher Secondary School. The Director of Environment delivered the Presidential address and he interacted with the NGC students and elaborated on why and how the



NGC students should create environmental awareness. Mr. L. Durai, NGC, State coordinator proposed the vote of thanks. The Director of Environment, inspected the vermi-composting initiative of the school. He also inaugurated an exhibition setup by the school students. NGC District coordinators for Chennai district, Mr. G. Thangaraj and Mr. Ravi Kumar conducted the programme.



## One day seminar for the National Green Corps (NGC) district co-coordinators at Guindy Children's Park, Chennai.

The Department of Environment, Government of Tamil Nadu in collaboration with the C.P.R. Environmental Education Centre, Chennai, conducted a one day seminar for NGC district coordinators at Guindy National Park on 6<sup>th</sup> December 2012. The Director of Environment, Dr. H. Malleshappa, I.F.S., welcomed the NGC district coordinators, the resource persons and the participants. He highlighted the need for basic



environmental awareness among the school children. The

Director also urged the participants to suggest ways to improve the functioning of the NGC programme in the future and suggest their financial requirements for conducting more awareness programmes in addition to the regular NGC activities. Various NGC district coordinators interacted and gave their suggestions to improve the NGC programme.



After the inauguration, the Director of Environment released a book titled "Sutrusuzhal Sinthanaigal" authored by NCG district coordinator Thiru. Joe Prakash, Kanyakumari district. The technical session was handled by resource persons Dr. T. Sundaramoorthy and Mr. U. Thirunavukkarasu, from the C.P.R Environmental Education Centre, Chennai. Representatives from Green Bandhu, an NGO promoting 'go green' initiatives also participated in the programme and gave a brief lecture on the various initiatives and solid waste management models that they had created across various schools in Tamil Nadu.



## Awareness creation to school students on Wetland conservation

The Tholkapia poonga is conducting various awareness programmes for school students to create awareness on the need for conserving the wetland habitats. The Staff of the ENVIS centre, Department of Environment, participated in these programmes on 29<sup>th</sup> October 2012 and 22<sup>nd</sup> November 2012 and created awareness among the school students by delivering lectures to the school students on the need for wetland conservation.



### ENVIS Team

**Dr. H. Malleshappa, I.F.S.,**  
Director

**Thiru Yogesh Dwivedi, I.F.S.,**  
Additional Director

**Dr. J.D. Marcus Knight**  
Senior Programme Officer

**Mr. K. Muthukumar**  
Programme Officer

**Ms. S. Indra Devi**  
Programme Assistant

**Ms. M. Shanthi**  
Data Entry Operator

**Editorial Board:** Editor-in-chief: Dr. H. Malleshappa, IFS., Editor: Thiru Yogesh Dwivedi, IFS., Associate Editor and Design: Dr. J.D. Marcus Knight, Printed at R.R. Screens, Chennai-14

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