

Case Studies on Religious Commitments Towards Protection of Freshwater Turtles and Tortoises in India

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ABSTRACT

In India a large percentage of people are affiliated with the religious faiths so they voluntarily participate in the protection of environment thereby helping the wildlife to survive. Religious people in the country believe on divinity related to nature, such as rivers, mountains, trees, animals, and the earth. Although the national and state governments are putting efforts in conserving chelonians by protecting endangered species through State Legislation and also in declaring the habitats as protected areas, the locals and religious people are also contributing for the protection of freshwater turtles and tortoises in religious reserves/sanctuaries and temples. For outreach conservation activities the religious leaders in India are coming forward and contributing for conservation and protection of Chelonians. Case studies on protection of turtles and tortoises by religious people are discussed in this paper

Keywords: Turtle, Religious protection, Conservation

Introduction

India is bestowed with a great variety of Chelonian fauna. There are 32 species of freshwater turtles, 4 species of tortoises and 5 species of marine turtles [1-4]. Freshwater turtles in India inhabit different water bodies ranging from shallow ponds to deep lakes and rivers. The lack of scientific information on life history, bio-ecology and populations of turtles has been considered as one of the pressing problems to devise management strategies for turtles in the field. In India large numbers of turtles are slaughtered in different states for consumptive utilization. Due to lack of restrictions on the capture of turtles and little or no enforcement of existing legislation, populations of turtles in different water bodies are decreasing [5]. The National and International scientific and conservation community has declared a number of turtles as endangered in the schedules of Indian Wildlife (Protection) Act, 1972 and in Red Data Book [6]. In India many religions are existing and the people belonging to the specific

religions are following the traditions of the particular religions. People protect the nature and natural resources for longtime survival of the species [7]. In this paper case studies on turtle protection by the religious people at certain localities in the country are presented.

Methods

Surveys have been conducted to identify the species diversity, habitat conditions and exploitation of the turtles in different States. Religious literature was studied to identify the religious speeches of the 'dharm' gurus (religious priests/teachers) who give speeches to general public on the benefits of conservation of nature and natural resources. Different localities have been visited and protection measures followed by the general public have been analysed. Various case studies in different states on turtle conservation and protection have been analysed to identify the power of the religious teachers in propagating the conservation of turtles and tortoises of the Country.

Results and Discussion

Freshwater turtles in India inhabit different water bodies ranging from shallow ponds to deep lakes and rivers and are divided broadly into two categories: 1. Hard-shell turtles (Emydid turtles) and 2. Soft-shell turtles (Trionychid turtles). Each State in the country holds at least one species of turtle with maximum number of 17 turtle species in the State of West Bengal (77.3%) [8-10].

Threats

In India turtle populations have declined drastically during the last few decades as a result of direct and indirect human interventions. Illegal and over exploitation have caused an alarming state for turtles. To meet the demand, freshwater turtles from different rivers of the northern states of India are illegally caught and exported to various markets. Soft-shell turtles are most commonly sold due to their tender flesh and more meat yield per animal.

Loss of turtle eggs due to predation by man, domestic and wild animals are the main factors for population decline of turtles. The water development projects in India are serious threats to the freshwater turtle populations. The dams and barrages on the rivers mainly affect the natural riverine habitats of the turtles. Other factors for decline of turtle populations are conversion of river banks into agricultural fields and collection of sand from nesting sites on the river banks [11,12].

Legal Protection of Turtles

The Indian Chelonians are protected by various ways like religious, legislation, incidental protection etc. Endangered Turtles are protected under Indian Wildlife Protection Act, 1972. Laws are legislated under Wildlife Act to save the endangered species from illegal poaching and give protection to their habitat. To control any illegal International trade many of the endangered turtle specie are included in Appendix I of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Indian chelonians are given protection through National as well as international legislation [1,13].

Freshwater turtles in India receive incidental protection in different sanctuaries specially created for crocodile conservation that started since 1975. Protection staff posted in the sanctuaries and in other protected areas keeps regular vigil to stop illegal capturing of aquatic animals including freshwater turtles [12].

Religious Protection of Turtles

The attitudes of different religions toward conservation can vary widely. Anthropocentric mainstream Muslim position is that humanity has responsibility for Allah's creation, which has been given to humans as a gift. The biocentric Jain belief that every being— animal, plant, or human—has a soul and should be treated with respect. Zoroastrianism, a religion that respects and protects many aspects of nature including certain species.

Ecological advocates within many religions adhere to the principle of stewardship of nature or the idea that nature should be revered. Hinduism, Christianity, Judaism, and Islam tend to centre their environmental ethic on the concept of stewardship, and, therefore, the upkeep and management of nature as the responsibility of humans. Religions originating in Asia often tend to emphasize the divinity in nature, its forces, or its creatures.

The turtle occupies an honoured place in many mythologies. The turtles and tortoises are considered as religious symbols. According to Hindu mythology, the Universe is supported by four elephants standing on a turtle's back. People show special reverence to the turtle as they consider the turtle as one of the ten main incarnations of "Vishnu the supreme God". River Yamuna, mythologically called as "Mother Yamuna" used the turtle as her 'Vahan' (Vehicle) (Rao, 1987). All these superstitions gave good protection to the turtles. In addition, the river stretches at major pilgrimage centers are protected by local people where they perform religious rituals. These river stretches are good habitats for large number of turtles. Such river stretches are referred as 'Religious Sanctuaries' for protection of not only turtles but also other aquatic and wild animals. Annandale and Shastri commented on the sacredness of the Ganges softshell turtle, *Nilssonina gangetica* in various shrines across the country. There are many temple ponds in Bangladesh and India where different turtle species are present [14-16]. Devotees are known to keep and feed turtles in Temple ponds which have now become a safe house for many extant freshwater turtle species.

Hinduism has three principal deities, the Brahma - the creator, Shiva - the destroyer and Vishnu - the preserver. The Vishnu avatars (incarnation) are believed to descend to earth to empower the good and destroy evil, relieving the burden of the earth and restoring balance. There are many localities where turtles/tortoises are protected by religious people in India (Figure 1 and 2).



Figure 1: India map showing the locations of religious places where turtles/tortoises are protected by faith people



Figure 2: Freshwater turtles getting protection through faith people in religious places

Case Studies

Star Tortoise (*Geochelone elegans*) Conservation

People believe that turtle/tortoise is the incarnation of the Hindu deity Lord Vishnu so they protect them in the temple premises (Figure 3 & 4). A temple known as the Kurmanatha Swamy Temple is a Hindu temple dedicated to Kurma (Turtle) – the second avatar of Vishnu. Sri Kurmanatha Swamy Devasthanam is 15 km from Srikakulam in Andhra Pradesh, India. It is the only temple in the world where Vishnu (God) is worshiped in his Kurma avatar. In the temple's premises, a tortoise park has been built to conserve the star tortoises *Geochelone elegans*. Sri Kurmam is the conservation centre for star tortoise, which is breeding in the temple premises. At present this temple is managed by the A.P. Hindu Religious and Endowment Board and the Gajapati Rajus of Vijayanagaram are the temple trustees.



Figure 3: Religious sculptures depicting Lord Vishnu as Turtle



Figure 4: Sri Kurmanatha Swamy Temple in Andhra Pradesh, India where turtles are revered as God

Devotees collect tortoises from the nearby fields and offer them to the temple. Star Tortoises (*Geochelone elegans*) are living in the Temple premises from many centuries. The tortoises are taken care by the Govt. of A.P., Temple authorities and an N.G.O. called Green Mercy organization. At present Tortoise Conservation Centre is housing more than 250 Tortoises including hatchlings. Captive breeding of tortoise is very successful at this centre.

Turtles in Tripura, North-East India

The fifteenth century Tripureswari temple constructed by King Dhanyamanikya in Udaipur, 55 km from Agartala, capital city of Tripura State in north-east India is believed to be one of the holiest Hindu shrines in the country. Tripura Sundari Temple is a Hindu temple of the Goddess Tripura Sundari. The rare species of Bostami turtle *Nilssonina nigricans* inhabit the Kalyan Sagar water body lying in the eastern side of the temple (Figure 5). Spread over 1.11 hectares the lake in the temple premises has been the natural habitat for the Bostami turtles. Turtles are protected by the faith people who offer food to the turtles [18]. The turtles are breeding in the lake.



Figure 5: Turtle protection in Tripureswari temple in Tripura, North-east India

Star Tortoise (*Geochelone elegans*) Captive Breeding Center

Star Tortoises were kept in Annavaram temple in Andhra Pradesh for a long time. Later on these tortoises were gifted to NFCL, Kakinada, Andhra Pradesh, India to maintain in their Deer Park. Captive breeding of these tortoises is reported since 2001 in NFCL Deer Park [19].

Turtle protection in the Yamuna River

Situated on the bank of River Yamuna the Bateshwar in the state of Uttar Pradesh is a very ancient temple town and an important spiritual and cultural centre for Hindus and Jains. At Bateshwar there is a temple complex along the Yamuna River. Fishing is banned by the temple administration along the temple complex. In the river different freshwater turtle species like Batagur kachuga, B. dhongoka, Pangshura tentoria, P. tecta and P. smithi are protected by the faith people (Figure 6). At a single visit one can see more than 100 turtles basking along the sacred river stretch.



Figure 6: Turtle protection along the temple complex in the Yamuna River

Turtle (Kachua) Sanctuary, Varanasi, India

For protection of freshwater turtles in the Ganga River along the Varanasi pilgrimage city in Uttar Pradesh a Kachua (Turtle) Sanctuary was declared during 1989 to protect rehabilitated freshwater turtle *Nilssonina gangetica* and other freshwater turtles (Figure 7). Turtles and all other aquatic species are conserved/protected and efforts are being made to increase their population in this sanctuary. Turtles and all other aquatic species are conserved/protected in this sanctuary by the Government and faith people.



Figure 7: Religious Sanctuary on the Ganga River where freshwater turtles are protected

The Turtle Breeding and Rehabilitation Centre, located in Sarnath, is situated on the outskirts of Varanasi. Turtle eggs are collected from the Chambal River for hatching and rearing the young in the rehabilitation centre at Sarnath. Captive reared turtles from Sarnath turtle rehabilitation centre are released into the Turtle Sanctuary in the Ganga River. Releasing the turtles in the Ganga River is part of a project, aimed at bringing down pollution levels in the river.

Conclusion

Temple ponds and river stretches along the temples are a best solution for conservation of turtles and tortoises. Spiritual leaders have a big role in motivating the faith people for protecting the Chelonians in India

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