The role of spiritual beliefs in conserving wildlife species in religious shrines of Bangladesh

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The conservation of biodiversity is developing into one of the biggest challenges of the century. Rapidly declining forests and the degradation of wild habitats are a direct result of a lack of public awareness and participation in the process of conservation. However, in small land areas in undeveloped countries characterised by high population density and poor public awareness, local religious and/or spiritual beliefs favour conservation of biodiversity at both species and habitat levels. This paper attempts to explore this practice based on case studies from Bangladesh where for generations some local beliefs have been protecting important wildlife species such as the Black Soft-shell Turtle, Mugger Crocodile, Rock Pigeon and Rhesus Macaque. The paper also offers a SWOT analysis of the potential role and challenges of these religious shrines as a refuge for biodiversity.

Keywords: shrine; *Sufi*; wildlife conservation; spiritual belief; Bangladesh

Introduction

The worship of nature and its living organisms has been a tradition of many world religions (Swamy, Kumar, and Sundarapandian 2003; Bhagwat and Rutte 2006) including Hinduism, Buddhism and most of the sub-religions (Anthwal, Sharma, and Sharma 2006) on the Indian subcontinent. Similarly, in Abrahamic religions, including Judaism, Christianity and Islam, in the 'Noah's Ark' narrative, according to the 'Book of Genesis', at God's command Noah built an ark to carry pairs of all the animals on Earth to protect them from an imminent flood. Although these religions do not worship creation as such, conservation ethics is deeply ingrained in them. There is quite a bit of evidence indicating that religious and/or spiritual appreciation positively contributes to conservation, both at the species and landscape level (Khan, Menon, and Bawa 1997; Berkes 1999; Devereux 2000; Swamy, Kumar, and Sundarapandian 2003).

Bangladesh, a densely populated (955 people/square km) country with no committed focus on conservation until the late 1980s, is endowed with a rich variety of biodiversity, mainly due to its unique geo-climatic location (Appanah and Ratnam 1992). The country also has one of the lowest per capita ratios of land designated for conservation, a total of 242,596 hectares of land under the protected area management system (WRI 2009). Under such circumstances, the conservation of biodiversity, especially wildlife, is

crucial since they are highly sensitive to habitat loss and environmental degradation. The continual shrinkage of forests and high rate of deforestation (0.3% per year between 1990 and 2005) perpetuated by the poor socio-economic context challenges the governmental efforts to combat a quickly eroding biodiversity (FAO 2005; Mukul and Quazi 2009). However, in some of the religious shrines of Bangladesh (widely popular as '*majar*' or '*dargah*') several wildlife species have long been protected and conserved in proximity to the shrines (Ahsan, Haque, and Fugler 1991). The present paper aims to explore the role of religious and/or spiritual beliefs in selected shrines in conserving biodiversity, chiefly at the species level, with additional emphasis on their status, opportunities and limitations. We believe this study will be beneficial to revise the role played by such beliefs in conserving biodiversity, and will offer policy-makers a new tool for conservation planning, especially for regions where people still have great religious faith and where biodiversity conservation is a challenging task due to weak socio-economic and cultural standards.

Methods

Four specific religious shrines were chosen for the study. Table 1 illustrates the selected shrines and additional features associated with them. Information was collected through field visits at selected sites during

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Table 1. List of studied shrines and their general attributes.

Name of the shrine	Age of the shrine	Location	Area
Shrine of <i>H. Sayed Chasni Peer (R.)</i>	~700	Sylhet	~7.5 ha
Shrine of <i>Khan-i-Azam H. Khan Jahan Ali (R.)</i>	~600	Khulna	~15 ha
Shrine of <i>Shaikh Jalaluddin H. Shah Jalal (R.)</i>	~700	Sylhet	~5 ha
Shrine of <i>Sultan-ul-Arefin H. Bayzid Bostami (R.)</i>	~1200	Chittagong	~5 ha

Table 2. Conservation status of the wildlife species and related information.

Species (common, local and Latin name)	Population (within shrine)	Conservation status*		
		Bangladesh status	Global status**	Distribution
Black Soft-shell Turtle, Bostami Kachim, <i>Aspideretes nigricans</i> ***	~400	Critically Endangered (CE)	Extinct in the Wild (EW)	Endemic (also found in Assam, India)
Mugger Crocodile/Broad-snouted Crocodile, Kala Pahar/Dhola Pahar, <i>Crocodylus palustris</i> ***	2 (deceased)	Extinct	Vulnerable (VU)	Asia
Rhesus Macaque, Banor, <i>Macaca mulatta</i>	~150	Vulnerable (VU)	Least Concern (LC)	Tropical Asia, Africa and South America
Rock Pigeon, Jalali Kobutor, <i>Columba livia</i>	~3000	Data Deficient (DD)	Least Concern (LC)	Global

*As per World Conservation Union; **as suggested at IUCN (2009); ***population of this species within country limited only to that shrine.

the year 2009. Both qualitative and quantitative data were collected and interviews were arranged involving responsible persons from *Majar* committees – formed locally to govern overall management of the site and nominated and/or elected by communities with the help of local administration. Data collected through field work was further verified and cross-checked by other reliable sources when required. The ages of the shrines were determined from available literature and references (e.g. ‘*Banglapedia*’- the national encyclopedia of Bangladesh), as well as from any ‘epitaph’ available in the respective shrines. The number of visitors to each shrine was determined by observation as well as by discussion with members of the *majar* committee and with local elders.

Results and discussion

Historical profile of the shrines

Basically, the chosen shrines are memorial sites named after the *Sufis* associated with them. The *Sufis* were the great mystics of Islam, poets and philosophers whose objective was the reparation of the human heart, turning it away from all else but God (Zarruq, Istrabadi, and Hanson 2008). The history of the arrival of these *Sufis*

on the Indian sub-continent goes back to ancient times and is accompanied by many myths and lore associated with their arrival, some quite contradictory. For example, in the history of the arrival of *Sultan-ul-Arefin H. Bayzid Bostami*, locally it is believed that he was buried in the area but according to other sources he has never been in that region (Ahsan and Saeed 2009).

The arrival of the *Sufis* in this region was largely due to their intention to establish and preach Islam (ASB 2006). Their shrines are situated in Sylhet city, and are nearly 700 years old. *Khan-i-Azam H. Khan Jahan Ali*, an architect of that period, was originally from Turkey. His shrine is nearly 600 years old (ASB 2006). It is ironic that in some shrines the *Sufis* themselves are worshiped whereas as they fiercely objected to the worship of humans. Structurally, all of these shrines consist of a tomb, mosque and some permanent water body (pond), except in the case of the Shrine of *H. Sayed Chasni Peer*. The wildlife associated with each of these shrines is believed to have persisted since the lifetime of the respective *Sufis*.

The wildlife species and their conservation status

Table 2 shows the wildlife species, their population and local and international conservation status. Many of

Figure 1. Mugger Crocodile in the Shrine of *H. Khan Jahan Ali* in Khulna. Photo credit: Monirul H. Khan.

Figure 2. Black Soft-shell Turtle in the Shrine of *H. Bayzid Bostami* in Chittagong. Photo credit: Monirul H. Khan.

the associated species, such as the Two Broad-snouted Crocodile or Mugger (Figure 1), apparently have a lifespan much beyond those found outside the shrine areas. This species is believed to be extinct locally (Islam, Ameen, and Nishat 2000a). Among the other species, the Black Soft-shell Turtle (Figure 2) is critically endangered in Bangladesh whereas the Rhesus Macaque (Figure 3) has been reported to be vulnerable, although they are still abundant in natural forests of the country (Islam, Ameen, and Nishat 2000b). The population of Rock Pigeons (Figure 4) in the country has been reported to be in decline (Islam, Ameen, and Nishat 2000c).

Myths and people's attitudes

There are also quite a few contradictory myths about the wildlife existing in the shrines. For example, there is a strong belief about the Black Soft-shell Turtle (*Bostami Kachim* in Bengali) and their attachment to the shrine of *Sultan-ul-Arefin H. Bayzid Bostami*. There has been a tale for generations that these turtles were brought and introduced into the Bostami pond by the *Sufi* himself. The local belief on the other hand is that these turtles were once sinful men who came into association with the saint, who then changed them into turtles as punishment for their wickedness. There is another belief that these turtles were evil spirits and

Figure 3. Rhesus Macaque in the Shrine of Hz. *Sayed Chasni Peer* in Sylhet. Photo credit: Sharif A. Mukul.

Figure 4. Rock Pigeons in the Shrine of Hz. *Shah Jalal* in Sylhet. Photo credit: Sharif A. Mukul.

were turned into the present form because they incurred the wrath of the *Saint* (Ahsan and Saeed 2009).

Table 3 presents the popular myths and beliefs linked to the wildlife species in the study of shrines. Most of these individual organisms are identified by local names, distinct from their common or Bengali names. For example, the Black Soft-shell Turtle in the shrine of *Sultan-ul-Arefin Hz. Bayzid Bostami* is locally called as '*Gadali-Madali*', while the two last remaining

Mugger Crocodiles in the shrine of *Khan-i-Azam Hz. Khan Jahan Ali (R.)* are locally called '*Kala Pahar*' and '*Dhola Pahar*'.

It is revealed from the empirical study that a large number of visitors (Figure 5) from different religions pay visit to these shrines each day, which increase dramatically during the weekends and other public holidays. During the visits, the pilgrims and visitors also feed and cherish these wildlife species with the intention of gaining God's blessings. A handsome

Table 3. Wildlife species, related myths and number of visitors in observed days.

Species	Visitors (per day)		Myth and other history*
	Weekend	Regular day	
Black Soft-shell Turtle	~2000	~750	These turtles are believed to have been brought into the pond by the <i>Sufi</i> himself; contradictorily, others believe that the turtles were once people (evil spirits) whom the <i>Sufi</i> cursed!
Mugger Crocodile	~1500	~650	Some followers of the <i>Sufi</i> released a few of these crocodiles in his pond and he accepted them as pets.
Rhesus Macaque	~650	~250	Reliable data is unavailable; presumably since the area was heavily forested before, the <i>Sufi</i> began to feed some of these monkeys and they became his pets; his followers continue to feed them with a mind to eliciting favor from God.
Rock Pigeon	~3500	~1750	The Sultan of Delhi presented a pair of pigeons when he met the <i>Sufi</i> , and the customary belief is that shooting/eating of these pigeons brings bad luck.

Figure 5. Visitors on a regular day at Shrine of *H. Shah Jalal* in Sylhet. Photo credit: Sharif A. Mukul.

number of business enterprises have been established surrounding the shrines that mostly sell feed for these wildlife.

Based on fieldwork, a SWOT analysis was performed in the study shrines to determine their role, strengths and opportunities to serve as a refuge for these threatened wildlife (Table 4). The main strength and opportunity is that there is still a sustainable source of food and funds available in the studied shrines both from government and visitors that could potentially be used for the sustainable management of these animals. Local support is essential for

conservation and due to the religious attachment to these shrine animals this support is readily available. The weaknesses identified are that the management of these animals has been done locally for ages by unskilled people and is not necessarily based in a scientific approach. Lack of technical skill in wildlife management, high disturbance rates, and excessive feeding by visitors often cause fungal infections and water pollution in the ponds. Also, physiological disorders can occur due to the accumulation of body fat that negatively affects fertilisation capacity. Furthermore, changing human beliefs due to

Table 4. SWOT analysis of shrines and conservation value.

Strengths	Weaknesses
1. Conserve biodiversity at species level 2. Adequate food and care 3. Sustainability (funds, maintenance)	1. Unscientific management 2. Overfeeding causes negative effects on fertility etc. 3. Repeated disturbances by visitors
Opportunities	Threats
1. Alternative option for conserving biodiversity 2. Local support 3. Increased monitoring and care is possible due to the financial efficacy	1. Changes in human belief 2. Internal politics (for money, influence) in the management 3. Fragile to any sudden changes in environment/limited habitat area

modernisation and ever-shrinking habitats threaten the future of the wildlife species in the studied areas.

Conclusions

Apart from conserving wildlife some of these shrines seem to hold a high diversity of plants, particularly figs (*Ficus* spp.) that offer ideal habitats to birds, some herpetofauna and insects. The shrines also host certain orchids, liana and epiphytes and provide food for birds and small mammals. The *Sufi* shrines and the culture of peaceful coexistence with their wildlife could be an important tool to mobilise public support in favor of biodiversity conservation particularly in areas where biodiversity conservation is difficult due to socio-economic and political fragility.

To ensure and enhance conservation in such religious shrines, governments should work together with local conservation agencies to promote the scientific management of remaining wildlife species. Restoration of wildlife habitats within and outside the shrines, regular monitoring of their populations, measuring the carrying capacity (i.e. number of allowable visitors per day), and regular training to the people involved in the day-to-day management of the wildlife species in the shrines will certainly help their sustainable conservation and development.

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