

GUEST EDITORIAL:

The Swampland of Sea Turtle Conservation: In Search of a Philosophy

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"If we are to preserve the world's cultural and natural treasures, we must respect diversity which does not divide us, and we must look ahead intelligently and behave ethically".

His Holiness the Dalai Lama (in Western & Pearl 1989)

The search for an environmental ethic is a relatively recent endeavour in comparison with other branches of philosophy, and the deeper questions regarding the intrinsic value of nature and our relationship with it have yet to be resolved (Hargrove 1989). Meanwhile, the needs of conservation are pressing and cannot wait the resolution of these questions. However, in order to "look ahead intelligently and behave ethically", all of us need to examine some questions periodically, even if the answers are complex and layered. Some of the more critical questions are: *What species, populations or habitats should be conserved? How and why should they be conserved? Who makes these decisions? What are the ethics of conservation? What is the role of science / scientists and biology / biologists?* Here, I hope to explore some of these questions in the context of a recent debate over sea turtles and submarines in India.

Submarines versus sea turtles

Vishakhapatnam, a coastal town just south of the Orissa - Andhra Pradesh border, is the headquarters of the Eastern Naval Command of the Indian Navy. The sandy beaches of Vishakhapatnam city have sporadic nesting of olive ridleys, and have been affected by the usual problems attendant with urbanization (B. Tripathy pers. comm. VSPCA 1999). Many individuals and non-governmental organisations such as the Vishakhapatnam Society for the Prevention of Cruelty to Animals (VSPCA) and Green Mercy have worked towards the protection of sea turtles in and around Vishakhapatnam. In 1999, the eastern command of the Indian Navy proposed to create a museum on a beach within the Vishakhapatnam town using a decommissioned submarine. VSPCA, protesting against the impact on sea turtle nesting, filed a Public Interest Litigation against the Navy claiming that the submarine museum would be a violation of the CRZ (Coastal

Regulation Zone), which includes the "coastal stretches of sea, bays, estuaries and creeks which are influenced by the tidal action (in the landward side) upto 500m from the high tide line and the land between the low tide line and high tide line" (Environmental Protection Act 1986). At the same time, VSPCA also sought the support of national and international organisations in their battle against the Indian Navy. Whether or not any issue merits conservation action (to what extent and by whom) would depend on an objective assessment of the facts, and that unfortunately is often not available in the strong rhetoric that characterizes the debate, as has been the case here.

The beach in question

Olive ridley turtles (*Lepidochelys olivacea*) nest all along the east and west coasts of India (Kar & Bhaskar 1982), and the major mass nesting grounds are in Orissa (Pandav *et al.* 1994). The entire coast of Andhra Pradesh (AP) has sporadic nesting of olive ridley turtles (Kar 1983; Priyadarshini 1998; Rajasekhar 1998). A recent survey enumerated about 3200 nests along the AP coast, with a range in density from 1 to 60 nests / km / season (Tripathy & Choudhury 2001). The study identified four principal nesting beaches (3 - 10 km in length) at relatively undisturbed sites in northern and central AP, where nest densities were 40 - 60 nests / km / season (*ibid.*). The disputed submarine site is part of the 25 km long Vishakhapatnam beach which lies along a marine drive and has a nesting density of 1-5 nests / km / season (Priyadarshini 1998; Ramana Murthy 2001; Tripathy & Choudhury 2001).

The site is within a few kms of the harbour and numerous industries, is backed by various buildings and is subject to substantial human activity including vehicular traffic along the marine drive, disposal of waste, light pollution, and use of the beach for recreational activity (Ramana Murthy 2001; T. Ramakrishna, pers. comm.; VSPCA 1999). Given the current usage of the beach and existing light pollution levels, the 'submarine' museum seems unlikely to further affect it in any way, except by occupying a couple of hundred metres of nesting space.

Regarding the legal issue, CRZ I (there are four

categories) includes "areas that are ecologically sensitive and important such as National Parks, Sanctuaries, Reserved Forests, Mangroves, Estuaries, Corals, areas close to breeding grounds of fish and other marine life, areas of outstanding natural beauty" (Environmental Protection Act 1986). Construction and other development is prohibited in these areas. Developed areas, including all coastal stretches within municipal limits (such as the disputed site), are designated as CRZ II (*ibid.*). While the Navy and state Government claim that the area is CRZ-II, the VSPCA claims that it should be CRZ-I, since ridleys nest on this beach. However, using this logic, most sandy beaches on the east and west coasts of India (which total over 6000 km) would have to be designated as CRZ-I, simply by virtue of the low-density ridley nesting that occurs, and this hardly seems practical given human population densities along the Indian coast.

Animal rights versus the left

Some of the conflict between conservationists is caused by differences in the philosophies of the animal rights movement and the environmental movement, with the concern for wildlife only a superficial similarity between the two. Animal liberation and environmental ethics have been distinguished as being based on different intuitions, principles and behaviour (Callicott 1980). The biocentric approach (on which animal liberation is based), which posits that nature should be preserved because of its inherent right to exist, has been considered and discarded as a philosophy for environmental conservation (Hargrove 1989). As a compromise between the extreme positions of bio- and anthropocentrism Norton (1984) suggests "weak anthropocentrism", which stresses on the cultural value of nature in human society, in addition to its utilitarian value. Animal liberation and environmental conservation may thus be served by very different approaches and actions. Animal rights, being by definition less concerned with human welfare, alienates at least some proportion of the public, and its association with biological conservation in media and in the minds of the public may not help the cause of the latter. While media attention to environmental issues does raise awareness, such attention can have both positive and negative impacts. In fact, misrepresenting an issue, such as the importance of a particular beach for sea turtle conservation could lead to loss of credibility, which would affect the environmental movement as a whole.

Small is beautiful (or the importance of being Ernst)

Given the distribution of wild animals and their habitats and the limited resources available for their conservation, it becomes necessary to prioritise habitats, taxa and populations for concerted conservation action. The setting of regional and global priorities does not however diminish the value of conservation at the local level, both because local conservationists value their turtles and for the wider impacts of any conservation programme. For eg., the Students Sea Turtle Conservation Network (SSTCN) in Madras has run a turtle hatchery since 1988 and though over a 100,000 hatchlings have been released, this is unlikely to save the olive ridleys of Madras, given factors such as urban development. But they have used sea turtles and their extraordinarily charismatic hatchlings to sensitize the residents of Madras, particularly students, to a wide range of environmental issues, spawning other small conservation programmes and inspiring many individuals. I would suggest that even if there are no sea turtles in Madras ten years from now, the turtles and the SSTCN would have served conservation well. For us, the beach should (and already does for many) serve as a classroom where we can educate people about the value of sea turtles and marine habitats rather than a battlefield where we alienate a large segment of the public because of a narrow turtle-centric view of the world.

Considering the actual impact of the submarine on the beach (regardless of nesting densities, which several studies suggest is low). Maybe the sacrifice of this nesting space could have been compensated by using the museum for furthering education and awareness about sea turtles. Perhaps it could be compensated by involving the Navy to a greater extent in turtle conservation, for example in offshore patrols and the consequent reduction of mortality of turtles in trawlers, which is a far greater threat in the region (Tripathy & Choudhury 2001). Considering the reproductive values of different life phases of sea turtles (Crouse *et al.* 1987), every adult turtle that could be saved from drowning in a trawl net would compensate for more than 5 destroyed nests.

Conservation by consensus (or ecology as if people mattered)

What is conservation really about? The perception of many seems to be that it is the preservation of objects, most often defined as species of flora or fauna, and sometimes as forests and habitats. For those who merely

want to 'preserve' existing species, there are also the options of cryogenic zoos, cloning, captive breeding, and so on. *Is this what conservationists want?* Most humans have a world view that they would like to preserve or create and conservationists and their ilk envision a world in which there are natural ecosystems, including flora and fauna and ecological and evolutionary processes. Conservation might then be interpreted as the (re)integration of humans into ecosystems, without endangering the existence of those processes and objects. Perhaps the preservation of objects can be brought about by enforcement, eco-terrorism and even by spreading wrong or biased information. However, I would argue that the long term conservation of landscapes, lifestyles and ecological processes requires honesty and consensus – or some degree thereof.

Draconian enforcement, for example, may be less than useful in achieving the long term objectives of conservation for the following reason. When the enforcement of a rule or law adversely affects the majority, its success depends on the power of one (small) section of the community over the other. Once this power equation is negated or changes in favour of another group, it no longer works. However, if a majority of the stakeholders believed in the need for conservation, the movement is more likely to meet with lasting success. In order to achieve this consensus, we have to make various aspects of human welfare our primary concern, and distinguish the philosophy and actions of conservation from that of animal liberation. For example, opposition to animal 'use' or 'consumption' (even if/when the use is sustainable) clearly derives from animal rights philosophies rather than conservation. On conservation, Western (1989) says that "*the best hope for all species is linked to a single, uncompromisable goal – the improvement of human welfare*".

If we accept that conservation is linked to consensus, then credibility is critical and can be achieved only by honest consultation and communication. While data collection and dissemination may be best achieved by professionals (be they biologists, sociologists, lawyers, educators), the decision making process should involve all stakeholders. Unfortunately, biologists have also been unwilling to relinquish control to local people in conservation projects (Campbell 2000). Our current concept of community based conservation still involves introducing the idea of conservation to a local community (and controlling their actions). However, community based conservation will come of age when the desire

for conservation comes from within. One striking example is the ridley conservation programme of a fishing community in Kerala on the west coast of India (see Kutty 2000), which was inspired by a newspaper article on sea turtles. That Kerala is the most literate state in this country and economically sound perhaps gives some indication of the circumstances required for conservation to take root.

In summary:

In view of the facts, the sea turtle nesting beach in Vishakhapatnam may not merit national or international conservation efforts, since it is not critical to the survival of ridley populations in India or even AP; the value of the turtles themselves in Vishakhapatnam may not equal the importance of teaching conservation lessons through them; animal rights arguments may confound conservation efforts, since the latter may be best served by improving human welfare AND stressing on the cultural value of nature; credibility is of paramount importance in conservation, and misrepresentation of issues can do more damage than good; facts pertaining to conservation prioritization need to be collected (by professionals) and presented objectively without bias; That once the data is available, biologists and other professionals should not hog the decision making process, but allow all stakeholders to be involved.

Finally, it is important to have discourse and polemic (life would be no fun without and what's more, they help develop the philosophies on which our actions are based), but let us also recognise that some are founded on research, some on experience and others on soapboxes and value each for its strengths.

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CALLICOTT, J.B. 1980. Animal Liberation: a triangular Affair. *Environmental Ethics* 2: 311–338.

CAMPBELL, L.M. 2000. Human need in rural developing areas: perceptions of wildlife conservation experts. *Canadian Geographer* 44:167-181.

- CROUSE D.T., L.B. CROWDER & H. CASWELL. 1987. A stage-based population model for loggerhead sea turtles and implications for conservation. *Ecology* 68:1412-1423.
- ENVIRONMENTAL PROTECTION ACT. 1986. Ministry of Environment and Forests, Government of India, New Delhi.
- FRAZIER, J. 1993. Conserving sea turtles and other natural resources: what Ferdinand Marcos and Manuel Noriega can teach us. In: (Eds. B. A. Schroeder & B.E. Witherington) Proceedings of the 13th Annual Symposium on Sea turtle Biology and Conservation. NOAA Technical Memorandum NMFS-SEFSC-341. pp. 60-63.
- HARGROVE, E.C. 1989. An Overview of Conservation and Human Values: Are conservation goals merely cultural attitudes? In: Conservation for the Twenty First Century (Eds. D. Western & M. Pearl). Oxford University Press, UK.
- KAR, C.S & S. BHASKAR. 1982. The status of sea turtles in the Eastern Indian Ocean. In: (Ed: K. Bjorndal) The Biology and Conservation of sea turtles. Smithsonian Institution press, Washington, D.C. pp.365-372.
- KAR, C.S. 1983. Notes on Marine turtles in Andhra Pradesh Coast, India. IUCN/SSC, Marine Turtle Newsletter 25: 256-258.
- KUTTY, R. 2001. Community effort at Kolavipalam, Kerala. *Kachhapa* 4: 11
- NORTON, B.G. 1984. Environmental Ethics and Weak Anthropocentrism. *Environmental Ethics* 6: 131 – 147.
- NORTON, B.G. 1989. The cultural approach to conservation biology. In: Conservation for the Twenty First Century (Eds. D. Western & M. Pearl). Oxford University Press, UK.
- PANDAV, B., B.C. CHOUDHURY & C.S. KAR. 1994. A status survey of Olive ridley sea turtle (*Lepidochelys olivacea*) and its nesting habitats along the Orissa Coast, India. Wildlife Institute of India, Dehradun. 1994.
- PRIYADARSHINI, K.V.R. 1997. Status, Ecology and Management of olive ridley sea turtles and their nesting habitats along north coastal Andhra Pradesh. A CCV Annual Report. WWF India. New Delhi.
- RAJASEKHAR P.S. 1998. Possible threats and conservation measures for the nesting olive ridley (*Lepidochelys olivacea*) populations in the Andhra Pradesh Coastline, India. In: (Eds H. Kalb & T. Wibbels) Proceedings of the 19th Annual Symposium on Sea turtle Biology and Conservation. NOAA-Technical memorandum NMFS-SEFSC-443 pp. 73-76.
- RAMANA MURTHY, K.V. 2001. Survey – Conservation and Awareness of Sea turtles along Northern Andhra Pradesh coast. Green Mercy, Vishakhapatnam, India.
- TRIPATHY, B. & B.C. CHOUDHURY. 2001. Nesting Survey of the Andhra Pradesh; a GOI UNDP Sea Turtle Project. In Proceedings of the National Workshop for the Development of a National Sea Turtle Conservation Action Plan, Bhubaneswar, Orissa (Eds K. Shanker & B.C. Choudhury). Wildlife Institute of India, Dehradun, India.
- VSPCA. 1999. A project report for the "Protection and Conservation of sea turtles" at Vishakhapatnam. Vishakhapatnam Society for the Prevention of Cruelty to Animals, Vishakhapatnam, India.
- WESTERN. D. 1989. Populations, Resources and Environment in the Twenty first Century. In: Conservation for the Twenty First Century (Eds. D. Western & M. Pearl). Oxford University Press, UK.

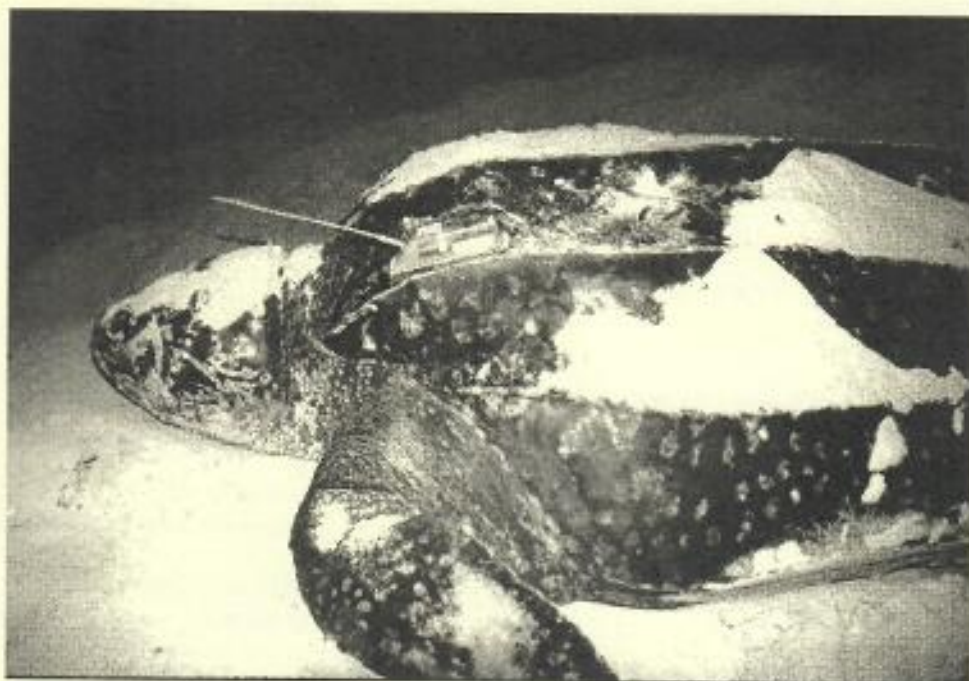
¹ Ernst Friedrich Schumacher – the author of "Small is beautiful: economics as if people mattered".

"The importance of being Ernest" – a play by Oscar Wilde

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Novel attachment of satellite transmitters to leatherback turtles (see Luctavage *et al.* pp. 9-12).

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