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Swallowed by a cayman : integrating cultural values in Philippine crocodile conservation

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SUMMARY

The Philippine crocodile is considered to be the most threatened crocodile species on the planet. Commercial hunting for crocodile leather has led to the disappearance of the endemic species in most parts of the Philippines. The species is now strictly protected in the wild by virtue of the Wildlife Act. But the Department of Environment and Natural Resources, the mandated government agency to conserve wildlife, lacks the resources and capacity to enforce environmental legislation. Indiscriminate hunting, the use of destructive fishing practices and the conversion of wetland habitat into rice fields continue to threaten the few remaining Philippine crocodile populations. With an estimated one hundred individuals surviving in the wild, the species is classified as critically endangered on the IUCN Red List of Threatened Species. Most conservationists have given up on the species; they argue that rapid population growth, rural poverty and negative attitudes towards crocodiles inhibit in-situ conservation. In 1997 the Wildlife Conservation Society of the Philippines for example concluded that there was no hope for the Philippine crocodile in the wild.

In 1999 a small and fragmented Philippine crocodile population was rediscovered in the municipality of San Mariano, a remote area in the northern Sierra Madre on Luzon. Here the species survives in densely populated agricultural landscapes. Since 2001 I have been involved in efforts to protect this remnant population. In 2003 I co-founded the Mabuwaya Foundation, a Philippine non-profit organization dedicated to the conservation of the Philippine crocodile in its natural freshwater habitat. Over the past years I conducted anthropological research in order to design novel solutions to preserve the species in the wild. The results of this search are described in this thesis. It is based on seven articles that have been published in academic journals and professional newsletters. Together these articles cover the key social scientific dimensions for analyzing complex conservation problems. The central question in this thesis is how to protect a potentially dangerous predator in a densely populated area characterized by rural poverty, weak governance and rapid social change.

Chapter 2 documents the historical changes in people's views and feelings towards crocodiles in the Philippines. It is often argued that negative attitudes towards crocodiles form a barrier for in-situ conservation. Most people in the Philippines do not differentiate between the Philippine crocodile and the much larger saltwater crocodile that also occurs in the Philippines, and consider all crocodiles to be dangerous man-eaters. Moreover, in the Catholic islands crocodiles are associated with the devil, and are often compared with corrupt politicians. But in the northern Sierra Madre indigenous people tolerate crocodiles in their surroundings. Here, traditional beliefs and practices enable the Agta and the Kalinga to share the landscape with a potentially dangerous predator. Filipino culture is not a barrier for Philippine crocodile conservation as is often presumed. On the contrary: the experiences and views of people living with crocodiles

offer clues for coexistence. It provides a conservation ethic that is deeply entrenched in culture and history, and enables the design of a conservation measures that enhance the capacity and knowledge of rural communities.

Chapter 3 explores why conventional conservation strategies are failing to conserve the Philippine crocodile in the wild. Policymakers argue that the enforcement of environmental legislation in a context of widespread rural poverty is illegitimate and ineffective. They claim that these antagonistic public attitudes towards crocodiles can only be transformed by generating revenues for rural communities, for example through crocodile ranching or farming. This line of reasoning continues to guide policy and practice in the Philippines, despite its failure to conserve crocodiles and improve the well-being of people living in crocodile habitat. The community-based crocodile conservation efforts in the northern Sierra Madre counter this utilitarian logic. The Mabuwaya Foundation succeeded in transforming hostile attitudes towards crocodiles, and mobilized broad societal support for the protection of the Philippine crocodile and its freshwater habitat. These experiences suggest that the conception of incentives purely in terms of economic benefits is too narrow and potentially counterproductive.

Chapter 4 describes in detail the community-based Philippine crocodile conservation efforts in the municipality of San Mariano. Conservationists often fear that democratization and decentralization processes will lead to irreversible environmental damage. But in San Mariano the devolution of power and authority over natural resources has enabled the design of innovative measures to conserve the Philippine crocodile in the wild. The municipal government plays a pivotal role in this process. Defying cultural prejudice, the municipality of San Mariano declared the Philippine crocodile as its flagship species, prohibited the killing of crocodiles and established a crocodile sanctuary in the Disulap River. These local rules are accepted by people as important and legitimate, and are therefore generally respected.

The participation of local resource users in decision-making is now widely seen as an prerequisite for wildlife conservation. Conservationists are encouraged to engage in open dialogues and negotiations with rural communities. But what form such interactions take in practice often remains unclear. Chapter 5 describes four dialogues between rural communities and conservationists, and shows how community consultations can facilitate information sharing, link environmental conservation to broader discussions on rural development and social justice, and ultimately produce agreements that offer a legitimate foundation for conserving wildlife.

Chapter 6 evaluates the public awareness campaign for the conservation of the Philippine crocodile in the northern Sierra Madre in terms of outputs, outreach, cognitive and affective outcomes, and impact through a quantitative counterfactual comparison. The campaign succeeded in raising awareness on, and transforming attitudes towards in-situ Philippine crocodile conservation: most people living in close proximity to crocodiles now support the conservation of the species in the wild. As

a result crocodiles are no longer purposively killed. Substantial gains can be made in community-based conservation by investing more in environmental communication and education, particularly in developing countries. Awareness on legislation and pride in the conservation of a rare and iconic species are strong reasons for poor rural communities to support in-situ wildlife conservation.

Most people in San Mariano now know that the species is legally protected. But many still wonder why. Conservationists mainly rely on economic values to justify in-situ wildlife conservation. In chapter 7 I demonstrate that these utilitarian arguments are often based on inaccuracies and flawed assumptions. By focusing narrowly on economic values, conservationists risk obscuring other valid reasons to protect nature, such as interest, emotions and respect. These cultural and intrinsic values are in fact the best, and probably only valid, arguments to mobilize local support for Philippine crocodile conservation.

Chapter 8 documents two attacks of Philippine crocodiles on humans in San Mariano. Such incidents can erode public support for the conservation of the species. It is essential to prevent human-crocodile conflicts, but precautionary measures such as raising awareness, providing safe access to water or relocating problem crocodiles can never wholly assure human safety. The preservation of a potentially dangerous predator in a human-dominated landscape will always entail a certain degree of risk. The analysis of local reactions to crocodile attacks shows that people living in Philippine crocodile habitat are, paradoxically, more willing to accept this reality than most outsiders.

The central argument forwarded in this thesis is that a narrow focus on economic incentives can undermine efforts to conserve the Philippine crocodile in the wild. It is often argued that rural communities will only protect wildlife if they profit financially from it. In this thesis I have demonstrated that traditions, emotions and ethics in fact form important reasons for people in the northern Sierra Madre to support the conservation of the Philippine crocodile in their surroundings. In contemporary conservation discourses such an argument is easily dismissed as hopelessly romantic, elitist or even irrational. But raising awareness, fostering pride and empowering rural communities to protect the resources they need and value is, in the end, a more pragmatic, pro-poor and realistic strategy to mobilize local support for the protection of the Philippine crocodile than crocodile farms and ecotourism. Conservation efforts can be significantly strengthened if cultural and intrinsic values are taken into account. Pride, interest and respect offer the best hope for the survival of the Philippine crocodile in the 21st century.

