**Community Based Conservation of Manatees in Belize:**
**A Brief Critique of Past and Present Models of Conservation in Gales Point, Belize**
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## Background

The population of West Indian manatees inhabiting the nearshore coastal waters of Belize and Chetumal Bay, Mexico, is one of the largest in the Caribbean (Morales-Vela, et al. 2000). Conservation of this population is considered especially important because a large established breeding population here could assist recovery of other threatened (or functionally extinct) Central American Antillean manatee populations (Hunter, et al., 2010). While the West Indian manatee (subspecies *Trichechus manatus* manatus) is protected in Belize by the Wildlife Protection Act of 1981 (Morales-Vela, et al: 67) threats to manatee populations in Belize - habitat loss due to coastal development, pollution, and direct and indirect impacts of increased tourism activity - are increasing, (ibid: 74).

The waters of the Southern Lagoon and the village of Gales Point have been central to manatee community based conservation (CBC) efforts in Belize. In the 1980s, tourism in Belize was reinvented as "ecotourism", which is often touted as a means of centering the benefits of tourism on the local community, creating local employment and fostering sustainable development (Belsky, 1999: 214). To this end, in the early 1990s, the Gales Point Manatee community-based rural ecotourism project was launched in an effort to provide economic incentives for local residents to protect the environment, specifically manatee populations in the 170,000 acre *Manatee Special Development Area*, an area recently designated a biosphere reserve, and including the community of Gales Point.

## Introduction

Based on preliminary research, it would appear that community based conservation (CBC) is quite successful in Belize, specifically manatee conservation at Gales Point. But the deeper one digs, the more complex the issues become. In fact, this limited research into CBC has generated more questions than it has answered. This paper identifies some of the specific challenges and issues in past CBC efforts in Gales Point. It also reviews more current efforts in training, education and participatory science and examines how they might fit into changing views on CBC in the field of conservation biology. The heightened rhetoric of education in conservation is touched upon and suggestions for future discussion are provided.

## Understanding Community Based Conservation

Community-based conservation in general has been embraced by the international conservation community and is included in environmental management programs in most countries throughout the world. While there are successful examples of CBC [1] (Roe, et al, 2001), there are those who question its efficacy (Brockington, 2004; Berkes, 2004). Berkes states that while there has been increasing effort and investment into CBC, there is heightened concern that the focus on community and participation is "diluting the conservation agenda". Conversely, the conservation agenda may also be at odds with local views on development which often include taming nature, bringing in more people, and providing more tangible products of development such as consumer goods, better schools, infrastructure, technology, etc. The view from outside is often a romanticized vision of maintaining the community as it is, while expecting support for protection of the environment. Notions of environmental protection have often been

[1] One successful example is the *campesino* community of Ostional, Costa Rica where an entire community changed from being illegal traffickers of marine-turtle eggs to having legal permission for their extraction and marketing (Roe, 2001).

imposed on target communities, rather than stemming from inherent beliefs and practices.

Community-based conservation, though, has been viewed as a necessary shift from the unilateral "fortress conservation" model that completely failed to take into account the socio-economic factors of local populations. The debate now is fueled further by those who believe CBC can succeed, but has not been properly implemented, and those that hold that "conservation and development should be delinked because the mixed objective does not serve either objective well" (Berkes, 2004: 622).[2]

Based on research carried out in Gales Point Manatee, Belize, from 1992-1998, Belsky (1999) provides concrete examples of problems in a CBC project. In fact, the community based rural ecotourism project at Gales Point met with limited success, due to, among other things, the intricacies of power structures inherent in the community, but not anticipated by the project founders. This fits a widespread questioning of CBC efforts across the fields of conservation biology (Berkes, 2004) and rural sociology (Belsky, 1999). Specifically, the politics of class, gender, and patronage inequities were found to have limited the equal distribution of ecotourism income, and eroded support for conservation regulations in some groups. Failure to take into account existing hierarchies of power and economics led to uneven benefits of conservation and division across the community and eventual dissolution of the project. The overall usefulness of community-management of ecotourism as an effective "tool for conservation and development" is also questioned (Belsky, 1999: 642).

[2] Berkes (2004) presents a thorough and compelling discussion of the current discourse on CBC in the conservation biology community. This article is attached and recommended reading for those who want to better understand the emerging paradigm in this field.

**Recent Manatee Conservation Efforts in Gales Point, Belize**

Recent attempts to involve community members in conservation in Gales Point do not profess to be centered on economic development, perhaps having learned from previous challenges. They are focused on research, training and education projects, including assessing the impacts of manatee interactions with tourist boats (Powell, 2006). Powell has been involved in manatee research and conservation in Belize for over two decades and leverages his relationships and interactions with local residents and Belizean scientists to build capacity for sound science and subsequent management decisions involving manatee conservation. The extent to which this program furthers community involvement is not clear, however, and some of those involved were also those that benefited from the CBC.

It does appear that more local residents have embraced the idea of "ecotourism", at least on a financial level. According to the Wildlife Trust (http://www.thewildones.org/Animals/manateeCons.html) "fishermen have begun to offer manatee tours and manatee viewing has become a major source of income for the villagers of Gales Point and "a major source of financial incentive for their conservation". Assisting the Gales Point Tour Guides' Association in development of an ecotourism strategy to minimize tourism impact is also on the projects' agenda.

Objectives of the program are sited as "discovering a scientific basis and economic rationale for the conservation management" of manatees in the Southern Lagoon. This effort builds on previous manatee research and conservation work that lead to the training of several community members as research assistants. Kevin Andrewin and Trenton Welch, in particular, have embraced the goals of manatee researchers, working to tag and track manatees. Research based projects have had a positive impact in terms of shifting views on the importance of environmental protection, and at least for a few individuals have provided a realization of how their lives are

entwined with conservation goals (Save the Manatee Club Website). Can these projects reach deeper into the community and inspire more individuals to embrace the goals of conservation? Currently, informal, one-on-one, education efforts are planned as well as seeking opportunities to discuss manatees and their ecological importance with Belizean audiences (Powell, 2006: 4).

According to Powell, the "ultimate goal" is to assist Belizeans to develop and operate a more formal, scientifically-based, "Manatee Conservation Management Program" (ibid: 3). Emphasis is on scientific research and professional training of Belizean biologists and local wildlife guides in manatee research and conservation practices (ibid: 4). The effort targets providing assistance, training and research to benefit the community of Gales Point, particularly in terms of scientific capacity building, evaluating the impacts of tourism, and helping to create a tourism management plan based around manatee viewing. In this way, it supports the community. It is unclear, however, whether there is a broader buy-in to the manatee-based tourism, and how much of the community supports conservation efforts.

**Conclusion:**

This paper has attempted to cast a critical lens on CBC and current science-based conservation efforts in Belize. It has only scratched the surface of the highly complex question of how to conserve sensitive species in fragile ecological areas, particularly areas in which there are competing uses of the environment. It's important to keep in mind that local human impacts are but one element of habitat stress and destruction. Threats also come from endeavors (timber extraction, citrus farming, and coastal development) that are sanctioned by government and business. The drive for development in local populations will often be in the direction of wanting access to improved lifestyles. This is only natural and I don't think it can be changed. Future

success in community based conservation efforts, it seems, will be directed from within the community itself. Whether community goals are consistent with conservation goals may be a matter of education.

The efforts of Powell and CBC do not have to be oppositional. The goal of using education to facilitate current scientific research efforts can perhaps be extended to provide basic understanding of ecological principles and ecosystem dynamics to school children in sensitive regions. This should be an objective in all parts of the world, including the United States. We wrestle with the same issues, really. Our children are currently being taught how to become successful consumers and workers in our current society. We need to educate them to understand their role in the greater ecological balance of the world.

Education seems to be the current magic bullet in conservation.[3] The Global Field Program itself is contextualized in the axiom that community participation in education can provide a solution to environmental issues in fragile ecosystems. How do current programs in participatory research and education involve the community and improve the environment? As we head to Belize to participate and observe conservation in action, I hope that we will keep this question and our role in the process, in mind.

[3] The Belize Audubon Society recently stated that "Education is at the heart of environmentally responsible development. At the Belize Audubon Society we believe that environmental problems can only be effectively solved if there is a clear understanding of the environment and its processes." (http://www.belizeaudubon.org/).

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**Discussion Questions:**

**1) Do conservation and development have complementary or competing agendas? Can CBC efforts be successful if they include a more comprehensive acknowledgement of community structure?**

**2) How do current programs in participatory research and education involve the community? Can participatory education promote conservation?**

**3) How does your involvement in the Earth Expeditions Belize, Forest and Marine Ecology, influence community-based efforts in Gales Point, or other areas of Belize?**