

## Cross-Cultural Communication: Communities and Conservation

[http://wfsc.tamu.edu/jpackard/behavior/wfsc681/Documents/4cases/Marine01\\_Galapagos\\_Smith.pdf](http://wfsc.tamu.edu/jpackard/behavior/wfsc681/Documents/4cases/Marine01_Galapagos_Smith.pdf)

### Marine Case 1: Fishermen in the Galápagos Whale Sanctuary

“Fishermen only care about making money.” “Non-scientists can’t be relied upon to provide valid data.” “Fishermen and conservationists won’t ever agree.” These are just a few of the remarks I hear when talking about developing a citizen-scientist observer network in the Galápagos Island National Park<sup>11</sup>. In 1990 the waters of the Galápagos Islands were declared a whale sanctuary, but very little effort has been made to better understand the whales and dolphins that frequent these waters. As a result, many aspects of the whales and dolphin populations present in this “living biological jewel” remain largely a mystery<sup>9</sup>.

Initial efforts by a few conservation researchers to incorporate the knowledge of local citizens has proven successful; when asked, local fishermen are able to provide detailed reports of the whales and dolphins they experience in their daily activities<sup>3,9</sup>. Unfortunately, many scientists discredit the validity of the information because the fishermen are untrained observers.

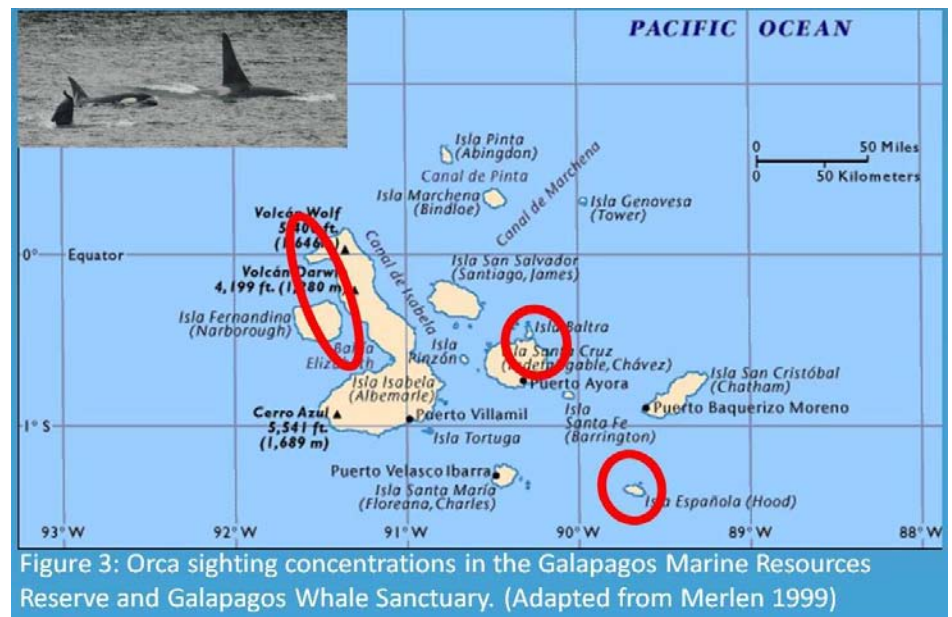
To further complicate the issue, the livelihood of the fishermen is also in jeopardy. As competition between small-scale local fishermen and international fishing fleets increase, intense pressure from conservation groups to reduce the island communities’ demands on the local environment continues<sup>1,7</sup>. The fishermen have unwittingly found themselves the point of contention between multiple stakeholder groups, and between the proverbial “rock and a hard spot.”

In an effort to preserve the ocean-based livelihoods of local communities, one potential solution is to incorporate the fishermen into tourist- and conservation-based employment<sup>5</sup>. Fishermen could re-tool their vessels to accommodate tourists on fishing trips or receive training to serve as naturalists on wildlife cruise vessels, resulting in steady, sustainable income<sup>5</sup>. Part of their training could be in data collection methods, increasing the quality and quantity of the scientific information they gather.

#### **Stakeholder Perspectives**

##### *Family Heritage Advocates*

While the Galápagos Islands are often thought of as a remote natural wonder with no history of human habitation, it is important to note that many fishermen have strong family heritage values and can trace their profession and location back several generations; their fathers, grandfathers, and great-grandfathers all made their living combing the near-shore waters of the islands<sup>3,7</sup>. These traditional artisanal fishermen provided a steady income and source of food for their own families, as well as most of the island communities. With nearly



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1000 kilometers of open ocean between the Galápagos Islands and the mainland of South America, these fishermen provided much of the food necessary for an isolated, independent island community<sup>3,7</sup>.

But in the last few decades the fishermen have experienced several external threats to their heritage. Pressure from conservation groups to reduce catch size or eliminate fishing altogether has forced the fishermen to either abandon their heritage or fight back. Many have chosen the latter, sometimes resulting in violent conflict<sup>6</sup>. At the same time, international mechanized fishing vessels in local waters are capable of producing huge catch quantities by using more efficient methods, allowing them to undersell local fishermen. As a result, some local fishermen have begun collecting endangered or protected species to sell on the black market for a greater profit<sup>1, 6, 7, 10</sup>.

In response, environment advocacy groups have created “no-fish zones,” while agency regulators use strong-arm tactics to enforce these measures.

### *Environmental Advocates*

Mounting pressure to conserve the biological diversity of the islands is coming not only from local conservation organizations, but international public opinion and scientific interests<sup>6,10</sup>. Preservation groups are calling for the complete shut-down of fishing, while conservationists hope to preserve oases of biological diversity and reduce the over-all impact of the community footprint<sup>4</sup>. In response, one tool that has been used with moderate success has been the implementation of “no-fish zones<sup>2,4</sup>.”

These areas, typically encompassing important spawning or nursery grounds, prohibit any type of fishing or collecting<sup>4</sup>. They are often prime fishing spots that fishermen have historically utilized to make their living, resulting in intense conflict between fishermen demanding the right to fish these spots and conservation groups<sup>1,7</sup>. The Ecuadorian navy and Galápagos Island National Park vessels patrol these waters in an effort to curb illegal fishing practices; if caught, fishermen face steep fines and loss of income. Unfortunately, these measures only affect the small-scale local fishermen; international fishing fleets are able to pay the relatively small fines and continue their illegal practices<sup>1,7,8</sup>.

In an effort to promote sustainable harvesting practices and preserve the culture of the Galápagos fishermen, some conservation groups, in conjunction with developmental advocates, have promoted the idea of tourist-based artisan fishing.

### *Development Advocates*

External companies wishing to make a profit in the islands have come to realize the value of the local people’s knowledge. Some employ local citizens as boat captains or naturalists on wildlife cruise vessels, using their understanding of the region to make them more competitive<sup>4</sup>. Unfortunately, while this provides income for a handful of people, these large tour vessels bring little business to the local people, as the tourists themselves may have very little contact with the communities<sup>8</sup>.

This idea of using the local knowledge to increase revenue has led some environmental advocates to work with the small communities to promote eco- and culture-based tourism<sup>5</sup>. Fishermen would re-tool their boats to accommodate tourists for short fishing or wildlife viewing excursions. This practice could produce more income for the community while meeting the demands of tourists, and with the proper training, fishermen could become better able to record the whales and dolphins they observe using the protected waters<sup>5</sup>. For this idea to become a common practice, regulatory groups would have to design special permits enabling the fishermen to engage in tourism-based business.

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## Agency Regulators

The Ecuadorian navy and National Park enforcement services work to prevent unauthorized or unregulated fishing within the islands<sup>2,3</sup>. Their methods include issuing fishing and wildlife tourism permits, regular boat patrols, and fines for law breakers. With the promotion of eco-tourism fishing by environmental and development advocacy groups, these government regulators would be responsible for implementing the new necessary laws and guidelines<sup>5</sup>. Unfortunately this has not been followed through, resulting in a few fishermen attempting this practice illegally<sup>5</sup>.

Some fishermen, attempting to merge their heritage with the growing demand for eco-tourism activities, have begun to offer cultural fishing trips<sup>5</sup>. While this is thought to be a good idea by many of the parties involved, without the proper regulation and issuance of permits, the tourists who partake of these trips are essentially unprotected<sup>5</sup>. Without regulation, the fishermen do not have to meet any safety or cleanliness codes, and tourists injured have no legal protection. Conversely, fishermen have no recourse should they be injured or exploited by the tourists.

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