

**INDIGENOUS PARTICIPATION IN FISHERIES MANAGEMENT IN TORRES STRAIT,
NORTHERN AUSTRALIA**

*Monica E. Mulrennan
Dept. of Geography
Concordia University
Montreal*

Preliminary Draft**Abstract**

This paper addresses the knowledge of indigenous Islanders in relation to fisheries management in Torres Strait, northern Australia. Islander knowledge will be situated both culturally and historically, before turning to the contemporary context of fisheries management and development. Islander fishermen have recently established dialogue with scientific fisheries managers; I argue that the success of this dialogue depends on various political and legal strategies deployed by Islanders to control the allocation and management of fisheries resources within their traditional marine territories.

Fisheries Management, Torres Strait Islanders, local knowledge, local control

Introduction

To ask whether or not an indigenous society practices resource management risks simplistic response. It is always more revealing to ask *which* resources are conserved or managed, under what circumstances. The Torres Strait presents an interesting context in which to examine this question. Located between Papua New Guinea and the Cape York Peninsula of northern Queensland, this reef-strewn passage is home to a group of Melanesian Islanders who have an intimate and long-standing connection to the small islands, extensive reefs and tropical waters of their traditional territory.

For the period prior to colonization by Europeans, there is little direct evidence for the resource use and management strategies of Islanders. There is a suggestion, however, in the 1898 research of the Cambridge Anthropological Expedition to Torres Strait that Islander culture involved collective awareness of ecological constraints, and of the possibility of human action directed toward sustainability. Stern taboos regulated human population size, for example (Haddon 1908: 107-9). The cultural ideal was two children per nuclear family, and it was contrary to tribal law to have more than three – infanticide, or adopting-out of a fourth child to a family with fewer children, was the rule. Although Haddon has nothing to say on the motivation for this taboo, the limiting factor for human population size was surely not seafood supplies; it was almost certainly fresh water, in short supply on most Torres Strait islands.

Certain other renewable resources were in short supply, according to Islander oral history. There was no surplus of garden lands, and indeed the relatively barren sand cays of the central Strait depended on trade for vegetable produce from the more fertile Eastern volcanic islands. In the Eastern islands, seabird manure was used to boost garden production according to local informants

today, but local cays and islets did not accumulate guano at a sufficient rate to meet the need. Hence, Eastern Islanders journeyed considerable distances to the outer limits of their sea territories, either northward to Bramble Cay near the Fly River estuary of Papua New Guinea, or southward to Raine Island, well down the Great Barrier Reef, where large cays are found that support large seabird concentrations.

Sand cays, as sanctuaries for nesting turtles and seabirds, are sacred places for Eastern Islanders. Mythology surrounding the creation of Bramble Cay, in the marine estate of Erub (Darnley Island), emphasizes the possibility of marine resource depletion, and human responsibility to protect resources (Scott, under review). Legendary ancestors used their magic to create the cay because nesting seabirds and turtles had been victims of human overexploitation nearer the home island. In response, ground was taken by clan leaders from the home island to create the Cay distant enough that that these important resources would be offered some protection, but close enough to be of use, with the comings and goings of visitors to the Cay overseen by clan elders.

From the 1860s to the 1960s, Islanders were involved as seamen and divers with a range of industrial fisheries – bêche-de-mer, pearl shell and trochus shell (Beckett 1987, Ganter 1994). This experience provided object lessons in the exhaustibility of resources that would not have been depleted under pre-contact conditions. Islanders witnessed first-hand the depletion of wild pearl shell, as well as trochus shell, to the point that a crew might dive all day for what a man might formerly have easily gathered in half an hour. The patterns of commercial exploitation, and of management policy to the extent it existed, were out of the hands of Islanders, however. Islanders were maritime workers for the most part, not owners of vessels. Even the small number of Islander-skippered commercial vessels was strictly under the thumb of the colonial Protector until the 1970s.

The 1970s saw further crises, one in relation to giant clams, which under aboriginal conditions were an exhaustible resource and seen as such; the other in relation to sardines, which under aboriginal conditions were effectively inexhaustible. Giant clams have the potential to be easily overexploited. Their meat is highly savored and involves limited harvesting effort. Yet, giant clams are present in significant numbers even on home reef areas. Food regulations limit the consumption of giant clam to infrequent occasions, as a means of varying the diet or during those periods when access to other sources of seafood is limited by unfavorable fishing conditions. Giant clams are key symbols in Islander attitudes toward conservation. Their shells should be turned upside down once the flesh has been harvested to serve as a refuge for other life forms. Individuals who fail to observe this practice are labeled *meme kurup*, a person uncouth and uncultured (Scott, under review).

Crisis occurred when a Taiwanese mother ship, careful to anchor beyond the visual horizons of inhabited islands, was eventually discovered by Islanders and apprehended. Giant clams had however been harvested in such large numbers over an extensive area of reefs that it took more than twenty years for clams to reestablish their former size and abundance.

From the early 70s to the early 80s, a turtle-farming program was initiated in the Torres Strait, by a foreign biologist. Large numbers of eggs were collected from nesting areas such as Bramble Cay and Raine Island and brought to Mer (Murray island) for incubation. From there, the hatchlings, which enjoyed much higher survival rates than they would in the wild, were dispersed to farms on various islands to be hand-fed in small pools. Juveniles were to be released to reinforce the wild population. Most hatchlings, however, were to be raised to adulthood, as breeding stock for turtle restocking elsewhere.

Sardines served as the primary food source for the large numbers of growing turtles. Sardines had always been a reliable and easily harvested food staple for Islanders. However, aggressive netting, an essential element in the maintenance of the turtle farm operation, resulted in an unprecedented sardine population collapse at both Erub and Mer. This in turn led to the retreat of formerly abundant species of large fish, particularly trevally, that normally pursue sardines onto the beaches of the home islands. Islander patience ran out when it was proposed that turtle farmers should turn to giant clams for turtle feed. Elders insisted that the project be terminated. According to Islanders, it took fifteen years for sardine populations to recover to former levels, and trevally are again in abundance along local beaches.

These resource crises, mostly profit-driven, mostly decided by non-Islanders, have stiffened local resolve to gain management jurisdiction and ownership of their home seas. For reasons both ecological and social, Eastern Island fishers advocate limiting reef fisheries to locally controlled small-boat operations, in pursuit of diversified subsistence and commercial catches – principally tropical rock lobster, coral trout, spanish mackerel, red emperor, sand fish (i.e. sea cucumber), and trochus shell. Rotational use of fishing spots, the distribution of fishing effort over multiple species, and seasonal shifts in wind and weather patterns limiting small boat access to less than six months of the year are principal features in local management. These stand in marked contrast to the approach of larger non-Islander commercial boats targeting one or two species, who can work intensively during all seasons in nearly any weather. There is also a major difference in economic imperative. Relentless accumulation is disparaged by Islanders; in the words of one informant: “them thing he happen on a needs basis, not on a craving for more and more. As soon as we satisfy, we stop and when the need come up again we go again”. The rare individual who fishes hard at every possible opportunity is more likely to be the object of censure than praise.

Bringing about a Sea Change

The aspirations of Islanders to assume primary control of resource and environmental management are being pursued along various avenues simultaneously. First, rights to use and to manage marine resources may be reshaped through Native Title recognition. Mer (Murray) Islanders, through the landmark Mabo decision in 1992, gained High Court recognition of their ownership to land above the high water mark. Through a series of Federal Court determinations on claims subsequently lodged with the Native Title Tribunal, most other Islander communities have gained similar recognition. A sea claim covering the entire Torres Strait region was lodged in late November 2001 on behalf of the Islanders by the Torres Strait Regional Authority (TSRA)¹. Recognition of Islander title to reefs and seas below the high tide mark will meet with greater opposition than was the case with land, and elsewhere Native Title rights to the Australian offshore have received weaker recognition than terrestrial rights (High Court of Australia 2001), but Islanders hope that their own case will result in a more beneficial judgment, given the predominance of the sea for their cultural identity and economic prospects.

¹ The next step involves the subjection of the Torres Strait claim to a Registration Test under the Native Title Tribunal (NNTT) to confirm that all relevant information concerning the claim has been documented. Once this stage is complete, the claim will proceed to notification and mediation. If no agreement is reached during the mediation stage, the claim will then go to trial. The entire process is likely to take several years.

In the meantime, Islander concerns about the sustainability of certain fisheries, and frustrations with the lack of economic benefits accruing from commercial fishing in their traditional waters have erupted in conflict with non-Islander commercial fishing interests and central government authorities. In the early 1990s, Eastern Islanders declared exclusive economic zones within their traditional waters, in line with demands for economic independence and the management of the seas in accordance with traditional law. Periodically, non-Islander commercial fishing boats have been evicted from this zone, although more recently, a so-called “gentlemen’s agreement” has led to non-Islander boats generally avoiding waters within a ten nautical mile radius of home islands. Islanders, however, seek a thirty-mile radius, and there is nothing in official licensing or regulation to prevent entry even into the ten-mile zone, so incidents at sea have continued.

The declaration of exclusive economic zones also reflected Eastern Islander anxieties about potential fishing pressure from some of the larger islands in Western Torres Strait, where Islander fishermen use hookah gear² to gain access to sandfish and tropical rock lobster at greater depths, and these fishermen are described as more cash-driven. Eastern Islanders believe that these factors, together with insufficient regard for traditional marine territories, led to the 1997 collapse of the Warrior Reef sandfish population in the Central Strait, and subsequent closure of the fishery. For this reason Eastern Islanders are adamant that their community territories must be respected, so that they may regulate access. They express some willingness to share with Western and Central Islanders, but on specific terms, including a ban on the use of hookah gear. For this reason, Eastern Islanders have made their participation in the blanket regional sea claim conditional on respect for community-level traditional territories.

A recent Cairns District Court decision dismissed armed robbery charges against an Islander man who had used a crayfish spear to confront licensed commercial fishermen operating in the traditional fishing territory of Mer. Ben Ali Nona’s confiscation of \$600 worth of coral trout from the intruders was deemed not to be robbery on grounds that he was acting on an ‘honest right of claim’. The acquittal is the outcome of a provision of the Queensland criminal code rather than recognition of Native Title sea rights. But it has fuelled grassroots support for a movement centred on the Torres Strait Fisheries Taskforce (TSFT), a body of young, energetic fishermen determined to take control of fisheries management through the creation of a Torres Strait Regional Fisheries Council.

A Cultural Maritime Summit³ in March 2001, in the wake of the Nona decision, was the venue for a regional statement of Islander demands. These included suspension of all fishing by non-indigenous commercial fishermen throughout the Strait within a week. The Commonwealth fisheries minister visited the Strait within days, warning against further interference with licensed fishing boats, but commencing political negotiations on important issues.

Islanders have particularly urgent concerns over the environmental impact of commercial prawning, believed to be a major factor in the decline of tropical rock lobster, a resource that is vital to their own small boat fishery. Over the years, large numbers of lobster on spawning migrations have been caught in prawning nets, and either sold illegally, or returned to the water injured. Islanders for some time have been proposing government buy-back of prawning and rock lobster licenses held by

² Hookah gear refers to the underwater breathing equipment used by professional fishermen for harvesting lobster, sandfish, and trochus shell.

³ The Ngalpun Malu Kaimelan Gasaman Cultural Maritime Summit, 22-25 March 2001.

outsiders. On his visit to the Strait, the Minister publicly rejected license buy-backs, professing lack of government funds⁴.

Behind closed doors, however, both State and Commonwealth governments have yielded important ground. They have afforded the chair of the Torres Strait Regional Authority (an Islander-elected regional self-governmental body) equal authority to themselves on the top-level fisheries decision-making committee – the Torres Strait Protected Zone Joint Authority (PZJA). In addition, an Islander TSFT representative has been granted observer status.

Discussions are also underway on the subject of prawn license buy-backs, and other Islander proposals for dealing with the current crisis in the tropical rock lobster fishery. Current stock assessments indicate that numbers of breeding stock and juveniles are among the lowest ever recorded, and that future recruitment may be too low to support the fishery (Torres Strait Rock Lobster Working Group 2001). Many Islander fishermen regard the total exclusion of prawn trawling vessels as their long-term objective. In the interim, however, they have agreed, as a minimal condition for tolerating prawning vessels in their waters, on the following trial measures: Firstly, a 50% reduction of prawn trawling licenses. Although the Commonwealth has expressed support for a proposal to buy back 39 of the 79 licenses in the region, there is much disagreement on how this buy-back arrangement should proceed. The Commonwealth has taken the position that the prawning industry itself should purchase any buy-backs but license owners and the industry more generally are unhappy with this. For the moment the Commonwealth, industry and Islanders remain at loggerheads. One possible approach that has been taken elsewhere in Australia is for the Commonwealth to suspend the prawn fishery as a means of applying pressure on the industry to co-operate. In the interim, Islander fishermen say they are holding the option of escalated direct action in reserve.

Meanwhile, the TSFT has successfully campaigned the regional Islander leadership into supporting them on rescinding a promise of prawn licenses to three private Islander enterprises, and restoring them to the common benefit of Islanders. Some Islanders argue that prawning on a reduced scale is environmentally sustainable, and acceptable if Islanders are afforded a stake in the industry. One proposal is to establish an Islander prawning operation with one of the three licenses, while renting the other two licenses to provide financing, training, and other support.

A second Islander demand has been for the seasonally rotating exclusion of all prawn-trawling effort from areas of lobster migration. Currently, trawlers sweep the whole of the prawning grounds from March to December. The Islander fishermen's proposal would have all boats working north of the 10 degree parallel only in the first part of the year, and working only to the south of the line in the second part. Each area will therefore be closed for a full seven months, closures timed to coincide with the clockwise migration of lobster through the Eastern and Central Strait. There has, as yet, been no official action on this demand either, although the proposal has received some consideration of its scientific merits by the Australian Fisheries Management Authority (AFMA).

Islanders have stated that these demands are non-negotiable and served notice of their readiness if necessary to close down the prawning grounds by laying barbed wire across the bottom, or by dumping old vehicles on the grounds to serve as rock lobster sanctuaries, which would incidentally pose an elevated risk of snagging and damage to prawning gear.

⁴ Each prawning license is worth approximately A\$ 800,000.

Islanders recognize that trawling is only one of several possible impacts on the lobster fishery, and are taking other measures as well. Of particular significance is Islander commitment to a total ban on the use of hookah gear. In the Eastern Islands, deeper waters inaccessible to free divers are regarded as sanctuaries. Eastern Islanders see a causal relationship between the use of hookah gear and the reduction of lobsters moving up onto shallower reef surfaces. The banning of hookah gear would, Islanders feel, dissuade most non-Islander divers from participating in reef diving fisheries, so a reduction in total fishing effort would also result. It is extremely interesting that Western Islanders, who do use hookah gear, have joined Eastern Islanders in supporting a total hookah ban throughout Torres Strait.

Similar concerns about the impact of “technology creep” on lobster, coral trout, and other stocks relate to the use of GPS and depth sounders that allow the targeting of specific fishing locations. Restrictions on their use would tend to spread fishing effort, at the cost of increasing the fuel and time costs of looking for specific bottom features. Islanders recognize that the proposed restrictions would be a lesser hindrance to Islander than non-Islander commercial fishermen, who are heavier users of these technologies, and whose local knowledge of productive sites is inferior to that of Islanders.

New arrangements in the rock lobster fishery, effective as of 1 December 2001, go some distance in addressing Islander concerns for rock lobster stocks. These include an increase in the minimum legal size for tropical rock lobster⁵, an extension of the existing two-month ban on the use of hookah gear by a further two months⁶, and a new two-month ban on all other forms of commercial fishing⁷, though still permitting traditional fishing by Islander fishers within the region. While these measures represent only part fulfilment of Eastern Islander aspirations they reflect the outcome of a more democratic approach to fisheries management in the region. Of particular significance is the fact that for the first time in its history the PZJA meeting, at which this three-pronged approach to stock management was endorsed, was held as an open forum with invited stakeholders, including the TSFT, in attendance as observers (Anon 2001).

Against this backdrop conflicts continue. In the final weeks of 2001 Eastern Islanders evicted a commercial trout vessel, which anchored out of sight at an uninhabited cay in the northwest part of their marine estate, but then sent dinghies onto reefs close to Mer. The commercial fishermen left peacefully following threats from Islanders that their catch would be confiscated if they didn't clear out. There is growing concern that such confrontations could escalate into more violent action. Younger Islander fishermen have made it clear that they are willing to resort to such action if challenged and if progress on other fronts stalls.

Conclusion

From an Islander perspective, local knowledge of marine resources has been continuous and evolving, and responsibility for their sea territories (even if inhibited by successive colonial regimes) has never been surrendered. Principles of resource conservation and management have a

⁵ The minimum legal size for tropical rock lobster is increased from 80mm to 90mm carapace length, or in the case of lobster tails, the minimum legal tail length is increased from 100mm to 115mm.

⁶ The ban on the use of hookah gear is extended from 1 October - 30 November for a further two months, to 31 January.

⁷ The new two-month ban is from 1 October – 30 November; this closure will commence 1 October 2002.

deep cultural history, and the application of these principles, together with specific knowledge contents, has evolved with changing conditions across a variety of fisheries.

As scientists we are coming to accept a democracy of knowledge traditions, in the dialogue between indigenous and scientific resource managers. But Islander experience is showing us that this new democracy has little meaning unless set within an institutional framework that restores authority to indigenous owners and governors of their traditional marine estates. The current format of the management structure established under the Torres Strait Treaty,⁸ is heavily biased towards Western scientific approaches, affords Islanders minority status and a limited advisory role, and provides an ineffective platform for them to raise environmental concerns or communicate their knowledge of the resources (Mulrennan and Scott, in press). Addressing these asymmetries will not be easy. Recent recommendations include a proposal to have active Islander hunter/fishers rather than a representative from the regional Islander leadership on the Torres Strait Fisheries Scientific Advisory Committee (TSFSAC). The inclusion of social science research expertise has also been recommended as a measure to enhance the cultural and socio-environmental aspects of natural resource management (Sen 2000). While such changes would likely result in the increased engagement of Islander knowledge and expertise in the research process, the establishment of true partnerships in management decision-making will require more substantial transformations, not just in the openness of scientific managers to Islander expertise, but in political structures of authority.

A combination of knowledge exchange, political negotiations, legal actions, and – when progress along these avenues is too slow – direct action at sea, is responsible for the promising recent achievements of Islanders. Substantial political interests from within the Australian mainstream remain aligned against them; but one fact has emerged clearly that should aid the course of future progress: those in central governments who are committed to better fisheries policy, and who support Islander initiatives, are doing so because they know that the current regime is unsustainable. They *are* listening to Islanders, and in the latest round of proposed reforms, for the first time, they appear to have opened themselves to the idea of Islander leadership.

Acknowledgements

My thanks are due to the Erub Council, in particular Mr. George Mye (past Chair) and Mr. Elia Doolah (current Chair), for their support, and to the many other people of Erub for their knowledge, advice and friendship. Special thanks to Bluey Bedford, Kenny Bedford, James Bon, and other members of the TSFT who have allowed me to document their knowledge, attend their meetings, and record their concerns and positions.

I am grateful also to Jeremy Beckett, Henry Garnier, Tony Kingston, and Victor McGrath for the valuable insights they have contributed to this paper. A very special debt of gratitude goes to my husband and co-researcher, Colin Scott (Anthropology, McGill University), for his many contributions to this paper and to this research more broadly.

The research on which this paper is based is funded by a Social Sciences and Humanities Research Council of Canada (SSHRC) grant.

⁸ Specifically I am referring to the Torres Strait Fisheries Management Committee (TSFMC), the Torres Strait Fisheries Scientific Advisory Committee (TSFSAC), and the Environmental Management Committee (EMC).

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