

Steve J. Langdon (1)
Department of Anthropology
University of Alaska Anchorage
3211 Providence Drive
Anchorage, Alaska 99508
fax: (907) 786-6850
afsjl@uaa.alaska.edu

GLACIER BAY MARINE RESERVE: RUSE OR RESPONSIBLE PROPOSAL?

Stream: Protected Areas
Discipline: Anthropology

Introduction

At the confluence of the eastern North Pacific Ocean and northwestern North America is an area of mountains, glaciers, forests, streams and inlets that have been in dramatic and continuous transformation for thousands of years. At the present time, most of the area north of Icy Straits, from the north Pacific Ocean on the west to the Chilkat Mountains on the east, fall within the boundaries of Glacier Bay National Park and Preserve. This park includes the most extensive expanse of marine waters in the National Park system and the use of and jurisdiction over these waters has been debated contentiously among groups with diametrically opposed vantage points on subsistence harvesting and commercial fishing for nearly twenty years.

The waters and shores of Glacier Bay National Park are the ancestral homeland of the Huna, a subdivision of the Tlingit Indian people who have maintained their utilization of the waters and lands from the period prior to contact until the present time. The waters have also been utilized for commercial fisheries for over 100 years with both Huna Tlingit and non-Native Euro-American fishermen engaged in the harvest of salmon, halibut, crab, cod, shrimp and rockfish for the industry.

While commercial fishing in the marine waters of the Park was authorized in the past, a shift in the policies of the National Park Service in the 1980s and continuing into the 1990s has led to a 20 year long battle about whether consumptive uses, either for subsistence as the Huna Tlingit have practiced, or commercial as the fishermen, both Tlingit and Euro-American have practiced, will continue. At the present time, the National Park Service has under consideration a proposed rule considering five alternatives. The preferred alternative proposes the elimination of all commercial fishing in Glacier Bay proper within 15 years. Alternative three explicitly incorporates marine reserve concepts purporting to provide an opportunity for the National Park Service (NPS) and the state of Alaska to test the effectiveness of high-latitude marine reserves for various purposes (NPS 1998b:3). According to this alternative, all commercial fisheries for "resident species" (i.e. those whose life cycle is restricted to Glacier Bay) would be phased out after seven years leaving only a winter troll fishery that harvests highly migratory king salmon to continue.

Is the proposed Glacial Bay marine reserve a responsible proposal to preserve fish stocks or a ruse used to support the aims of environmentalist organizations to preclude commercial fishing from Glacier Bay? This paper will explore the intersecting and conflicting interests of local Tlingit groups, non-Native commercial fishermen, environmentalist groups (importantly divided into local and non-local sectors), and marine biologists concerning future uses of Glacier Bay. Who proposed the Marine Reserve? Whose interests are served by designating Glacier Bay as a marine reserve? For what purposes is the reserve being created? These questions will be addressed through an examination of the history of the use of the area, its designation as "special space" by the US government, and the ideologies (beliefs, values and action programs) of those who express an interest in the area.

Background

In the late 19th century, John Muir, patriarch of the environmentalist movement in the United States, traveled to Alaska and was taken by Tlingit canoes to Sitakaday, the Tlingit name for "the-bay-where-the-ice was". This topographic space, later named Glacier Bay, inspired him with awe and wonder prompting some of his most rhapsodic musings on the divine quality of wilderness, and in particular, this ice influenced wilderness. In 1925, Muir's revered landscape was decreed to be a national monument without regard to the Tlingit people's presence and use of the area as part of their traditional homeland. Under National Park Service jurisdiction, a process of expelling residents, both Tlingit and non-Tlingit, and limiting consumptive uses of the terrestrial area was begun. These efforts intensified after expansion of the monument boundaries in 1939 to encompass additional lands from Excursion Inlet on the east to the Pacific Ocean on the west. The new boundaries also included nearshore (1-3 miles out) waters of Icy Strait, Cross Sound and the Pacific Ocean lying immediately offshore of the extended terrestrial boundary. The marine waters, however, were specifically exempted by National Park Service decree from these policies of exclusion and commercial and subsistence fishermen, particularly from communities in proximity to Glacier Bay, continued to harvest and eat or sell resources captured in Glacier Bay. Gradually, however, these uses came to clash with the strengthening of Park ideology and professionalization through succeeding decades. (2)

In 1980, the Alaska National Interest Lands and Conservation Act (ANILCA) converted Glacier Bay from national monument to national park status and excluded it from the subsistence provisions of other newly created national parks in Alaska at that time. It also established a procedure for the designation of wilderness waters in Glacier Bay National Park from which all commercial fishing and motorized activities were to be prohibited. Through a contentious and tension ridden process involving commercial fishermen and residents of nearby communities, wilderness waters designation was ultimately extended by the National Park Service to several parts of the bay including two prime areas of commercial fishing activity - the Beardslee Islands and Hugh Miller Inlet.

With regard to the newly designated wilderness waters, the State of Alaska (prompted by the concerns of affected fishermen throughout southeast Alaska), took the position that since they were clearly navigable, the State held jurisdiction over Glacier Bay National Park waters and therefore the National Park Service was not authorized to halt commercial fishing in any waters. Glacier Bay National Park policies and practices in the 1980s continued to recognize commercial fishing as authorized activities either explicitly or implicitly in the non-wilderness waters (NPS 1998). (3)

In 1990, the Alaska Wildlife Alliance and American Wildlands filed a lawsuit challenging the NPS's failure to bar commercial fishing activities from the park waters designated as wilderness under the provisions of ANELCA.

In 1991, the NPS published a proposed rule to 1) implement the ban on commercial fishing in wilderness waters and 2) provide for the phasing out of commercial fishing from park waters in seven years. In 1993, in order to avoid costly and hostile court proceedings with the State of Alaska, the NPS refrained from issuing a final rule and agreed to confer with Alaska representatives on the possibility of resolving issues through a legislative approach.

In 1994, the district court concluded that "there is no statutory ban on commercial fishing in Glacier Bay National Park, provided, however, that commercial fishing is prohibited in that portion of Glacier Bay National Park designated as wilderness area." This ruling was appealed by Allied Fishermen of southeast Alaska, a consortium of fishermen's organizations and processors.

In 1995, a discussion format termed the "stakeholders process" was co-sponsored by the NPS and State of Alaska in an effort to reach a cooperative solution thereby pre-empting lengthy legal proceedings. The aim was to develop a solution that would satisfy a large segment of the stakeholders and thereby be amenable to Congressional legislation. During these stakeholder meetings, USGS Biological Survey staff assigned to Glacier Bay National Park began the discussion of marine reserves and their possible application to Glacier Bay National Park and a marine reserve sub-group was created to report back to the entire group.

Stakeholder meetings continued until May, 1996 when FACA requirements caused the NPS to withdraw from the process since a federal agency could not participate in a deliberative process without officially chartering a public involvement effort. Other options to continue the multilateral process included chartering the stakeholder Work Group as a FACA panel, engaging in "negotiated rule making", or publishing draft regulations (Bosworth PC). The NPS chose to develop and publish draft regulations.

Following withdrawal from the "stakeholders process", proposals to designate Glacier Bay as a Marine Reserve were pursued separately within the NPS, largely at the initiative of USGS Biological Survey staff marine biologists assigned to the Park. Under their leadership and the joint sponsorship of USGS and NPS, a workshop was held in December, 1996 to explore the Marine Reserve concept and its applicability to Glacier Bay.

Regulations for the proposed rule on commercial fishing in Glacier Bay National Park were published in early 1997. In mid-1997, the federal district court's finding in favor of the Alaska Wildlife Alliance's position that the Park Service must enforce the Wilderness Waters closures they had established was upheld by the Ninth Circuit Court of Appeals. A new round of facilitated stakeholder sessions was sponsored by the State of Alaska in November, 1997 with NPS as an observer.

Commercial Fishing in Glacier Bay National Park Waters

The fishery resources in GBNP waters were harvested, processed, consumed and traded by the Huna Tlingit as part of their traditional economy prior to the coming of Europeans. Early explorers to the coast such as La Perouse in 1786 and Vancouver in 1792 obtained halibut and salmon from the Huna Tlingit in the vicinity of Lituya Bay and Cape Spencer. Following the purchase of Alaska from Russia, commercial salting and then canning of salmon in southeast Alaska began in 1878. It appears that by 1888, a saltery using Tlingit labor was operating in what is now known as Bartlett Cove.

Commercial fishing grew through the decades and became a core economic and cultural foundation for the Tlingit in association with Euro-American capitalists who constructed several canneries in the Icy Strait region. Dundas Bay salmon cannery, located on present day GBNP lands operated from 1900 to 1934. New communities were founded at Elfin Cove and Pelican (outside GBNP boundaries) as homes to commercial fishermen and their families. The Tlingit village of Hoonah, bringing together Icy Strait, Glacier Bay, Excursion Inlet and other Tlingit settlements spread out in the area, was consolidated in 1893 and became home to a bustling fleet of approximately 35 purse seiners and numerous other trollers by the 1930s and 1940s. Additional fisheries for halibut began as early as 1900 in southeast Alaska and gradually spread to GBNP waters.

Fishing for Dungeness crab in the region and in Glacier Bay proper began in the late 1940s with King and Tanner crab being added in the 1970s. In the 1990s, rockfish and gray cod were added to the ongoing fisheries. At the present time the species of greatest value derived from GBNP waters are Tanner crab, Dungeness crab, halibut and salmon.

In 1994, statistics from the Alaska Commercial Fisheries Entry Commission indicated that the total value of all commercial fisheries from ADFG districts including Glacier Bay National Park waters is estimated to have been \$8.8 million with \$1.25 million coming from Glacier Bay proper. Of the \$1.25 million, \$1.2 million was captured by fishermen living in southeastern Alaska of which \$367 thousand was earned by residents of the four communities bordering Glacier Bay National Park: Elfin Cove, Hoonah, Gustavus and Pelican.

The commercial fisheries of Glacier Bay National Park have a historical heritage of over a century, are merged in the cultural tradition of the Huna Tlingit, and provide a significant contribution to the economic base of both nearby communities and other communities around southeast Alaska, other parts of Alaska and non-Alaskan communities.

While it would be inaccurate to say that all fish stocks in GBNP are healthy and optimally productive, halibut and certain species of salmon are being harvested at levels not witnessed for sixty years. Tanner and Dungeness crab in Glacier Bay have remained steady while Dungeness crab outside of Glacier Bay in Dundas Bay and along the Pacific Ocean coast have suffered substantial declines that may or may not be attributable to commercial fishing. The only species (or species group) at present that may be stressed are several rockfish species of slow-growing, long-lived fish.

Reasons for Banning Commercial Fishing

For what reasons does the National Park Service's seek to ban commercial fishing from Glacier Bay?

There would appear to be three basic reasons. First is the commitment to principles of preserving "pristine" natural landscapes "unimpaired" for the enjoyment of present and future generations. This belief is derived from the core statement of the Organic Act of 1916 creating the National Park System and therefore it is the law that dictates this closure. This premise carries with it several corollaries - killing of animals should not occur in the Park and commercial consumptive uses of Park resources likewise should not occur. These are core beliefs of Park personnel that are held with varying degrees of intensity, from the pragmatic practicality of an employee carrying out a policy which might sometimes have to be compromised in light of other policies or local realities, to the zealous fanaticism of an employee enforcing a policy no matter what its implications for other policies or local circumstances. While both of these approaches can be detected in the history of Monument and later Park

superintendents' attitudes and practices toward commercial fishing, superintendents in the past decade have tended to be increasingly dogmatic in their single-minded commitment to "Park Values" and inflexible in their willingness to compromise or provide leadership to accommodate the circumstances in nearby communities.

The second reason for seeking to eliminate commercial fishing is that it either detracts from or fundamentally compromises the visitor experience in the Park. This idea is again based on the notion derived from the Organic Act that the second fundamental purpose for which Parks were created was public enjoyment. With the building of a new expanded lodge in 1966 and the beginning of the cruise industry tour boats in 1970, the number of visitors to Glacier Bay began to increase sharply. To this was added in the early 1980s, a wilderness hiking and kayaking component that brought new and different demands. In the eyes of Park Service personnel, these expanded uses necessarily were compromised by the existence of the commercial fishermen. Visual and aural pollution of the "pristine" quality of Glacier Bay were deemed unacceptable and requiring elimination.

The third reason given for eliminating commercial fishing is that it causes "impairment" of the marine resources of the Park, a component previously not included in the notion of "landscape." This addition reflects a new goal to establish a Park in which natural ecosystem (encompassing land and sea) processes, biodiversity, population structure and density of species, and habitats are preserved and perpetuated (Hale and Wright 1979, NPS 1998a). This most recent reason has developed in the context of increased staff of marine biologists conducting research on the Glacier Bay marine ecosystem and fish stocks. The NPS Environmental Assessment of Commercial Fishing in Glacier Bay conducted as part of the rule-making contains commentary indicating that halibut, rockfish, and crab (Dungeness, King and Tanner) stocks are all potentially negatively impacted by commercial fishing in Glacier Bay (NPS 1998b).

Commercial Fishermen's Views

Commercial fishermen have a significantly different view on the legal history of Glacier Bay National Park (especially its marine waters) and the NPS policies recently developed that are antagonistic toward commercial fishing than do National Park Service personnel.

First, fishermen regard the NPS claim to jurisdiction over the waters included in Park boundaries as unwarranted by the 1939 extension which first extended boundaries into marine waters. There is no discussion of the reason for the inclusion of the marine waters and the wording of the proclamation speaks to management of the lands enclosed with no mention of the waters. They point out that the actual acreage in the act designated for NPS jurisdiction (940,000 acres) corresponds only to the terrestrial boundaries and not to the full area encompassing the marine boundaries (1,300,000) acres. With regard to the NPS claims concerning the applicability of the 1983 regulation banning commercial fishing in all National Park waters, the fishermen point out that many Glacier Bay National Park documents since that time have both implicitly and explicitly recognized that commercial fishing is an ongoing activity in Glacier Bay.

Second, fishermen question the notion that visitors to the Park are offended by their presence or that the commercial fishing activities negatively affect tourist experiences in any way. They note that less than 1% of visitors comments on their experience in Glacier Bay include complaints and that there is virtually no evidence that visitors are offended or negatively impacted by fishermen's activities. Rather than being seen as detractors from a wonderful

experience, fishermen note that they could easily be seen in a positive light if NPS chose to present them in that fashion.

Third, fishermen point out that there is no evidence for the impairment or degradation of any of the primary commercially harvested species taken in Glacier Bay National Park waters: king, silver, pink, sockeye, and chum salmon; halibut, Dungeness and Tanner crab. They do not extend their claims to the status of king crab species found in Glacier Bay, Dungeness stocks on the Outer Coast or rockfish stocks. Given the long-standing efforts of many commercial fishermen in southeast Alaska to the protection of salmon habitat by limiting and restricting timber harvests, they feel that they are as concerned, and for more important reasons (namely their livelihood), about the health of fish stocks and habitats as are NPS staff.

The larger context for the fishermen is the increasing stress on trollers, the largest number of commercial fishermen in the region. These small-scale fishermen have been buffeted in the past decade by restrictions (numerical, temporal, spatial) on their harvest of king salmon due to declines of the species in Oregon, Washington and British Columbia and by international treaty commitments. Further, salmon prices have gone down in the same period due to the proliferation of cheaper farmed salmon on fresh fish markets. They realize that their communities and livelihoods are seriously threatened and therefore perceive that their backs are against the wall.

Trolling is in many respects aptly characterized as an "artisanal" fishery. Many trollers have been attracted to the activity by the autonomy and independence it provides along with the opportunity to work in some of the most beautiful landscapes in the world. Many cherish the boats that have been handed down to them by previous fisherman whose memory and reputation are part of the region's lore. Given the sparse economic rewards of trolling in recent years, persistence indicates the importance of these other values that the fishermen place on their activity.

While there are a few vessels over 60' that fish in GBNP waters, the vast majority are in the 30' - 50' range. These are small-scale fishermen akin to family farmers whose enterprises are often home, school and business wrapped into one. There is no trawling in the waters of southeast Alaska as these fishermen have recognized the damage this technique wreaks on habitat and fish stocks and successfully lobbied the North Pacific Fishery Management Council to eliminate all trawling east of 140 degrees north longitude. Fishermen have actively lobbied to keep dredgers from their waters in order to sustain their fisheries and support their exclusion from GBNP waters as well.

Tlingit Views from Hoonah

As noted above, the Huna Tlingit have oral traditions indicating their occupation of *Sitakaday* (Glacier Bay) prior to and at the time of the glacial advance during the Little Ice Age (Dauenhauer and Dauenhauer 1987). Following the rapid retreat of the glaciers during the first half of the 19th century, they gradually reoccupied the area and began using the resources as they became available. They have steadfastly resisted their treatment at the hands of the NPS on many fronts, regarding as illegitimate usurpation the efforts of the NPS to cease their occupation of ancestral lands (selected as allotments and historic sites), halt their harvests of subsistence resources and limit their commercial fishing activities. Catton (1997) has documented the conflict over subsistence that continues to this day.

With the coming of the commercial fishery to their region, Huna Tlingit adapted to the new industry in numerous ways. Just as they began harvesting sea otters, then harbor seals and

land animals from lands now designated as GBNP, so to did they incorporate GBNP waters into their emergent commercial harvesting patterns in the 1880s. Since the mid-1970s, the commercial fishing foundation of their local economy has been eroded by a series of regulatory decisions that closed major fishing salmon purse seining grounds, and by loss of access to fishing due to sale of limited entry permits for salmon fishing and IFQ shares for halibut and sablefish.

In 1995, the NPS developed a Memorandum of Understanding with the Hoonah Indian Association in an effort to create a positive working relationship and move beyond the conflict resulting from the NPS effort to prohibit subsistence sealing in Glacier Bay. The HIA interprets that Memorandum of Understanding as both recognizing their right to a "government to government" relationship with the federal government and placing them on equal footing with NPS in regard to rights in Glacier Bay National Park waters.

When the stakeholders sessions were begun in 1995, the HIA took the position that their circumstances in regard to Glacier Bay were distinct from those of the other stakeholders due to their customary and traditional ties to the area recognized in the Memorandum of Understanding with the NPS. At the second round of facilitated stakeholder sessions begun in November 1997, the HIA again enunciated their distinctive position by submitting a resolution noting their traditional and historic patterns of "bartering and trading for a significant part of our economic well being" and asserting that "we know our inherent customary and traditional and commercial fisheries are not separate." This resolution thus defines commercial fishing in Glacier Bay National Park waters as an integral part of the tribal heritage of the Hoonah Tlingit. (4)

Marine Reserves

The concept of marine reserves developed in the last 30 years has its foundations in two basic premises. The first premise is an *a priori* one - there are terrestrial reserves (refuges and parks) designed to preserve species, habitat and ecosystems - why shouldn't there be comparable marine areas? One commentator taking this position suggested that humans, because of our terrestrial nature, are "fish bigots" - that is people negatively discriminate against marine species, not granting them the same standing, respect and protection given to terrestrial species (McClanahan 1990). Perhaps more to the point is that only recently have human beings been able to affect the marine habitat on the scale that the terrestrial habitat has been affected over the centuries; therefore this more recent impact and the limited ability of humans to perceive the marine environment have combined to delay recognition of problems. In the past decade, the desire to preserve "biodiversity" has been added as an additional principle to this foundation.

The second premise is based on observations in various locations about the effects of over-fishing resulting in stock depletion, termed by some a "crisis in the world's fisheries" (McGoodwin 1990). While over-fishing of certain stocks has occurred at various times and places in human history, the present perceived crisis is global in scale due to the increases in harvesting that have occurred since the 1970s (Williams 1998). Massive industrial scale trawlers and longliners have entered every economically viable fishery niche in world, causing global fishery yields to increase into the 1970s and early 1980s, then plateau in the mid 1980s and begin to decline in the 1990s. The cod stocks of the northwest Atlantic Ocean are seen as one of the most visible and troubling cases of collapse but there are other cases as well.

Often the second premise of observed impacts is also seen as resulting in ecosystem alteration and degradation (Pauly et al 1998). This observation leads to a more intense demand for marine reserves to become "pristine" ecosystems where change will occur "naturally" and can be monitored and studied by marine biologists. Recent assessments of the Bering Sea and its

transformation in the mid-1970s suggest that there have been substantial systemic alterations perhaps put in motion by the harvest of large cetaceans (NRC 1996).

Marine reserves then are seen as meeting a variety of perceived urgent needs - preservation of ecosystem integrity (including biodiversity) and preservation of endangered fish stocks being the most frequently mentioned. Proponents of marine reserves are generally conservation oriented marine biologists who come from areas where they have direct and personal experience with the impacts of over-fishing either on specific stocks or on ecosystem transformation. Having witnessed declines in fish stocks being harvested, these results are nearly always attributed to over-fishing. Rarely does one see nuanced argument that considers multiple possible causes of stock decline such as pollution, environmental flux, climate change, or ecosystem dynamics. Instead one often finds descriptions of trawling - a particularly destructive form of mass harvesting - and a gloss implying that this represents the sole and complete nature of commercial fishing.

Applying the Marine Reserve Concept to Glacier Bay National Park Waters

The concept of Glacier Bay proper as a marine reserve surfaced in the context of the series of stakeholder sessions initiated by Glacier Bay National Park as part of the process of determining the future of commercial fishing in Glacier Bay National Park waters. These sessions began in December, 1995 and continued until May, 1996 when they were suspended due to federal laws (FACA). They were subsequently renewed in November, 1997 under State of Alaska sponsorship with a seemingly crisis driven mandate - that of arriving at a consensus among interest groups that could be presented to the US Congress for legislative action in lieu of the proposed rule that the NPS issued in April, 1997. The second round of stakeholder meetings were also structured differently in that the NPS could not actively participate in the negotiations but NPS personnel, from the national to the local park level, were present as observers and commentators on the subject matter.

Initial Stakeholder Sessions, 12195-6196

Three meetings were held in the initial stakeholder series. Participants in the initial round of stakeholder meetings included the Superintendent of Glacier Bay National Park; Deputy Commissioner of the Alaska Department of Fish and Game; representatives from fishermen's organizations (such as the Alaska Trollers, Association); representatives from conservationist organizations (the Sierra Club, National Parks Conservation Association, Alaska Wildlife Alliance and the Southeast Alaska Conservation Council); and representatives of Alaska Native organizations (Hoonah IRA Council, Sealaska Corporation). Notably absent at the stakeholder meetings were representatives from the tourist industry.

The initial stakeholder sessions were co-convened by the leadership of Glacier Bay National Park and the Alaska Department of Fish and Game who jointly hired a facilitator to moderate the discussion and stay on task. During the initial stakeholder sessions, working groups were established to investigate various topics such as examining stock assessment data, developing a complete history of fishing activities in the Park and exploring the applicability of marine reserves to Glacier Bay. The working groups were to include members from the various interest groups. Initially the marine reserves working group did include at least one fisherperson. However, planning of a workshop entitled "Marine Reserves: Possible Applications for Glacier Bay National Park and Preserve" was subsequently undertaken by federal agency employees only following withdrawal of NPS from the "stakeholder process" in May, 1996. Fishermen

representatives and conservationist group representatives who had participated in the stakeholders meetings were not invited to participate in the planning, and Alaska Department of Fish and Game invitees did not attend although they were invited. The workshop was held on December 10-11, 1996.

Marine Reserve Workshop

Contrary to expectations established during the stakeholder sessions, the marine reserve workshop was conducted as a closed meeting involving federal personnel. A proceedings of the workshop was published by the Biological Survey in early 1997 (USGS 1997). Basic information presented on marine reserves by four non-Alaskan marine biologists is summarized in the proceedings and several scientific and advocacy articles are included. In addition, also included are the summaries of commentary provided by different participants during the discussion sessions that provide substantial insight into the values and attitudes of the participants.

The first day of the workshop consisted of presentations from four marine biologists who had been invited by the USGS Biological Service due to their experience in the development and assessment of marine reserves in various parts of the nation. All were strong believers in the importance and efficacy of such reserves. Subsequent to the presentations, NPS and USGS Biological Survey personnel assigned to GBNP asked a variety of questions about the various features and characteristics of the reserve concept and actual reserves. The final session of the workshop was devoted to determining how the marine reserve concept might relate to Glacier Bay National Park waters. A number of views and concerns were brought up by NPS and USGS staff members during this final session.

Differing Approaches and Concerns

The invited marine biological presenters came from other federal agencies and were experienced in the development of marine reserves off the coasts of southern California and in the Florida Keys. They were veterans of long-term sustained efforts that went through a number of phases in the political process. In their presentations, they exhibited the characteristics of uncompromising, evangelical advocates complete with strategies for defusing or manipulating likely positions of fishermen and/or the general public (USGS 1997). They pushed for complete closure of Glacier Bay. In one case, information supporting a total closure was explicitly solicited by the GBNP Superintendent as he asked for advice on how to attack Alaska Department of Fish and Game assertions concerning the present health of stocks and adequacy of management (USGS 1997). Only one of the four marine biologists presented a case study of working positively with local groups to establish and monitor marine reserves.

Administrators at higher levels of NPS management were interested in different matters from Park staff and NBS biologists. For the Superintendent, the issue was not the relative fit of marine reserves to National Park mandates but rather how could the concept be used to "get that stuff (commercial fishing)" out of the Park. As a loyal and committed Park employee, selected as the Ranger-of-the-Year for 1997, the Superintendent's true interest was in removing behaviors he felt were incompatible with the Park mission, first and foremost of which was commercial fishing. The Regional Park Service Director was concerned about broader ramifications of how the Park Service fit into the regional society - that if you take away someone's livelihood, they will never see the value in what you're doing.

For Glacier Bay National Park staff, various different issues emerged that were more directly linked to characteristics of the marine reserves, their purpose and relationship to the biological characteristics of the park. One question concerned the incompatibility between the National Parks policy of allowing recreational fishing and the "no-take" provisions of marine reserves if they were truly to meet the mandate of "pristine ecosystems." A second issue concerned the relationship of different sections of Park waters to the marine reserve concept. In particular it was noted that salmon fishing along the Outer Coast and Icy Strait (portions of Park waters not proposed to be included in the marine reserve) would likely harvest fish headed for spawning in streams in Glacier Bay. The response from the visiting marine biologists was that such harvests would detract from the objectives of the marine reserve since it was a goal to get 100% of returning salmon to the spawning grounds. A third issue was the role of human beings in constructing the present ecosystem since the Tlingits had clearly been long-term occupants of the area. How would you be able to determine what constituted "natural ecosystem processes" with this clear history?

Marine biologists from the National Biological Survey stationed in Glacier Bay had various concerns including the relationship of the boundaries of the marine reserve to the migratory behaviors and lifecycle characteristics of different species. They asked if there were more appropriate lines that could be drawn, rather than a simple closure of Glacier Bay.

Another question concerned the notion of a "pristine ecosystem" - how might that be defined in terms of its component species and processes, given the continuous environmental change in Glacier Bay resulting from the movement of the glaciers? A related question was whether sea otters should or should not be considered a part of that ecosystem since they probably had not penetrated into Glacier Bay since the medieval optimum. If they did indeed come into Glacier Bay proper, what ecological impacts would they have? How should those be regarded? Finally, one biologist quite clearly noted that "we are backing into the marine reserve idea because we want to close Glacier Bay for political reasons". (USGS 1997).

The Glacier Bay marine biologists were also interested in how Glacier Bay fit into a national or worldwide system of marine reserves that might preserve distinctive habitats and ecosystems in different areas. They pointed out that Glacier Bay was not a characteristic southeast Alaska marine area. If you selected an area on biological grounds alone, would you choose this area? They suggested that it might be better scientifically to select smaller areas within the bay and combine those with habitats from Icy Strait and the Outer Coast.

Glacier Bay staff were also more interested in the possibility of developing a scientific research design to take advantage of continued fishing in certain areas while closing other areas to see what the effects might be.

While the marine reserve concept was explored in substantial detail at this meeting, there were a sizable number of issues that remained to be examined in greater detail and fleshed out if further development was to occur. Furthermore, the concept had not been explained or examined with ADFG biologists, fishermen and local residents with ecological interests and environmental training. These additional steps were never taken and the marine reserve concept was incorporated four months later into the proposed rule without any further involvement of the directly affected parties.

Marine Reserves from the Vantage Point of Local Ecologists

The State of Alaska commissioned a review of the literature on marine reserves and the applicability of the concept to Glacier Bay following the issuance of the marine reserve

workshop proceedings (Streveler 1997). This review of the literature was completed after the regulatory rule had already been published proposing the complete closure of Glacier Bay within 15 years. Streveler determined that there a variety of strengths in the marine reserve concept but pointed out several problems in its applicability to Glacier Bay. He noted that 1) "post-glacial change confounds measurement of human-caused change", and 2) while "Glacier Bay is certainly big enough to encompass some species' subpopulations; it is almost certainly not big enough for other" (Streveler 1997:8). He concluded that the "reserve has a large potential for missing the mark scientifically, disrupting existing lifeways, and generating controversy" (Streveler 1997: 10). As a compromise, he offered a proposal to establish a marine reserve in wilderness waters and the upper arms of the bay while maintaining commercial fishing in the non-wilderness waters of the lower bay.

Discussion

The concept of "marine reserve" for Glacier Bay National Park waters was introduced and examined by agency personnel in the context of an ongoing effort to construct a new regime for Park waters by eliminating commercial fishing activities from Glacier Bay proper. **However, it was introduced in the context of traditional NPS goals specifying commercial fishing as "nonconforming" on a priori ideological and perhaps legal grounds.** The question then of whether it was a "ruse" developed to advance the extreme preservationist position of certain Park advocates or a "responsible proposal" to protect endangered fish stocks is incorrectly posed, since the answer is not yes to one and no to the other but rather yes and no to both. The reason for this is that the actual relationship between these two propositions is more nuanced and subtle than it might initially appear due to the variety of participants to deliberations on the topic and the different vantage points from which they come.

There are extreme participants in the discussion whose position corresponds in large measure to the polar dichotomy originally posed. The Superintendent of Glacier Bay National Park was directly interested in how the concept of a marine reserve could help in the "dogfight" to get "that stuff" (commercial fishing) out of Glacier Bay proper and obtain a final victory (USGS 1997). He was not particularly interested in nuances about the present status of stocks or what kind of species characteristics and behaviors meshed with the idea of a marine reserve for Glacier Bay. Closing the bay was his absolute goal as a purist Park bureaucrat and it was also the ultimate goal of the Alaska representatives of the Sierra Club and the National Parks Conservation Association as stated publicly in stakeholders meetings. Their predetermined views on the future of Glacier Bay likely prompted the immediate and uncritical acceptance of the logic if not the label of marine reserve since it would advance their agendas.

On the other hand, marine biologists with experiences in other waters and with a global perspective (including local blinders) viewed the opportunity to close all of Glacier Bay to commercial fishing as a most inviting target of opportunity to extend the marine reserve concept into northern waters on a massive scale (cf. Streveler 1997). The fact that it would buttress and sustain traditional Park values was of lesser or no importance to them. The proposal was "responsible" from their vantage point in the context of: 1) worldwide declines in fish harvests, 2) concerns for the maintenance of "biodiversity", and 3) a goal of creating conditions for the existence of ecosystemic processes "unimpaired" by human harvesting. The underpinnings of the view was a faith that on a worldwide basis human activities had or were radically altering marine ecosystems irrevocably.(5) Surprisingly the marine biologists were not particularly interested in the specific circumstances of stock status or ecosystem functioning characteristic of

the northeastern Pacific Ocean and its inland waters. Their views strongly suggested an unreflective and unresponsive elitism in which the general public is seen as insufficiently educated or intellectually incapable of understanding the information and perspective advanced by marine biologists, while local stakeholders want to know one thing: "what's in it for them, and what do they have to give up" (USGS 1997).

While these extreme positions were indeed present, local agency personnel, local environmental group representatives, and fishermen were more inclined to carefully examine the implications of the marine reserve concept in terms of the specifics of Glacier Bay as an environment and the characteristics of the fish stocks and species utilizing the ecosystem. Their nuanced inquiries demonstrated an effort to find a defensible compromise that could both sustain commercial fishing and operationalize marine reserve concepts.

Representatives of local environmental and Park support organizations proposed middle ground solutions that closed upper portions of Glacier Bay but maintained major areas in the middle portions of Glacier Bay available to commercial fisheries (Koehler and Streveler 1998; Brown 1998). The local proposals were also innovative in advocating use of stock assessment as the methodology for determining the health of harvested species and stocks in Glacier Bay proper. The local proposals were an attempt to provide for the possibility of scientifically defensible marine reserve areas based on species patterns while recognizing the fact that they were dealing with the livelihoods of their commercial fishing neighbors. This would require substantial additional biological sampling beyond the present methods used by the Alaska Department of Fish and Game which are largely dependent on in season methods linked to commercial harvest statistics. They even made an effort to allay fishermen's fears of eventual phase-out by stipulating that the 15-year reassessment, based on careful biological studies, could reduce fishing area by no more than 10%, thus assuring the continuance of commercial fishing in Glacier Bay proper (Koehler and Streveler 1998).

Finally, local NPS and USGS Biological Survey staff noted the lack of concordance between NPS policies and local species behaviors and the desired characteristics of marine reserves. The Glacier Bay Park staff noted that NPS authorization of sport/recreational fisheries compromised the "no-take" requirements for marine reserves and would be a contentious issue with certain segments of the recreational industry. Biological Survey staff members noted that the migratory patterns of certain species did not correspond to a boundary drawn at the entrance to Glacier Bay and therefore a marine reserve could not be defended on a biological basis for these species. They were also direct in noting the difficulties in defining such terms as "unimpaired" and "biodiversity" for operationalizing management measures. For example, one topic discussed was how sea otters were to be conceptualized when they had not been present in Glacier Bay for probably two hundred years and their return would likely cause an undetermined but certainly identifiable set of changes in ecological characteristics of Glacier Bay.

Fishermen were basically unconvinced about either the utility or necessity of the marine reserve concept. They remained steadfast in their view that the wilderness waters created in 1983 were as much as they could lose without greatly endangering their already stressed livelihood. Fishermen felt that the biological and ecological research goals of a marine reserve could be accomplished within the already designated wilderness waters. They were willing to accept additional marine reserve (no-take) designation for most of the western and eastern upper arms of Glacier Bay. One of the reasons for their "line-in-the-sand" posture was based on their conviction that the proposals put before them by NPS personnel and the representatives of the Sierra Club and the National Parks Conservation Association were disingenuous steps on a path

to the eventual elimination of commercial fishing, not just from Glacier Bay but from waters of Icy Strait and the Outer Coast falling within the boundary of Glacier Bay National Park as well (cf. comments by GBNP staff in USGS 1998). Grudgingly and tentatively fishermen discussed the possibility of small additional closed areas in side bays but were not willingly to accede to major additional closures in Glacier Bay. The relatively few fishermen who had built their survival on the Beardslee Islands (the wilderness waters nearest the Park headquarters at Bartlett Cove) Dungeness crab fishery proposed possible exchanges of various waters to maintain access to this productive fishing ground presently critical to their livelihood.

One classic exchange between a fisherman and a marine biologist on the value of a "marine reserve" occurred during the crisis round of stakeholders meetings in January, 1998. In a heated exchange the biologist asked if the fisherman thought it prudent to have a fire insurance policy for his home (thereby equating the marine reserve with the insurance policy), to which the fisherman replied he did not think that it was prudent to pour water into his house to prevent fire (thereby demonstrating that the cure was worse than the disease). This metaphoric exchange reveals the stark clash of perspectives concerning prudent and reasonable approaches to the fisheries resources of Glacier Bay.

Conclusion

There are a number of insights that emerge from examining how the issue of marine reserve status for Glacier Bay developed. Perhaps one of the clearest insights is that the process did not originate in problems with local fish stocks and did not take as an important component the necessity to build a strong local constituency for the concept. Nor did the discussion at any time display a concern or sensitivity to the views or possible impacts on the fishermen and communities who would be effected by such a closure. By inviting marine biologists of national profile to make closed-door, public-excluded presentations to agency personnel, GBNP and USGS/Biological Survey probably precluded the possibility of developing local understanding and support. Experiences in Nova Scotia reported by Walters and Butler (1995) suggest that springing marine reserves on fishing communities without their involvement does not result in positive outcomes. On the other hand, efforts in St. Lucia indicate that a "bottom-up" approach to marine reserves that recognizes and strengthens local communities' participation in the process can make management easier and more cost effective (Walters and Renard 1992).

The positions taken by the non-local marine biologists seeking complete closure of Glacier Bay demonstrate several key features. First, they exhibited a willingness to argue from whole to part - that declines due to over-fishing on a worldwide basis means that that there must be over-fishing (as defined by stock declines or depletions) in Glacier Bay as well. Second, they exhibited no understanding of the fisheries situation in southeast Alaska, nor any interest in acquiring that information since it might have required qualification of their extreme views. Third, their presentations demonstrated deep-seated hostility toward fishermen, a resistance to identifying issues or concerns that might be legitimately raised, and a willingness to engage in systematic manipulation of the issue through strategic framing and dogmatic denial of the legitimacy of the interests and concerns of those who would be most directly affected.

What we see in the debate over the "marine reserve" and commercial fishing in Glacier Bay is the historical process of displacement and appropriation - of the core redefining the position of a peripheral space in the matrix of core needs. While the traditional NPS goals can certainly be portrayed as a coercive allocation compromising key values of the American civic religion (independence and work) and Tlingit cultural heritage, the rising concerns over global

over-fishing and preservation of biodiversity represented an opportunity to link a widely publicized biological concern with traditional Park goals.(6)

This process can be seen in other instances such as the displacement of fishermen from traditional fishing grounds in south Florida following the build-up of retirement communities in the area (LiPuma and Meltzoff 1997). In western Alaska, Pratt (1994) documents the establishment of "wilderness" designation on the southern 40% of Nunivak Island despite the historical and continuing use of the area for subsistence by Yup'ik residents of the village of Mekoryuk. In this case, unlike Florida (high use) or Glacier Bay (low use) there is virtually no seasonal, tourist use of Nunivak Island at all. The designation of "wilderness" in the Nunivak Island case most closely meets the true definition of the concept thereby rendering "illegal" activities that continue to be important to the existence and identity of the Yup'ik residents living on and using the island. Pratt concludes "that wilderness legislation ignores indigenous people's concepts of land and land rights, and fails to adequately address their past, present, and future use of designate wilderness lands" (Pratt 1994:333). Similarly, the wilderness designation within Glacier Bay and the proposal to close the entire bay to commercial fishing ignores and thereby denigrates the heritage and traditions of those who have used those waters throughout their lifetimes, not to mention the lifetimes of their ancestors.

In the Glacier Bay case, those being displaced consist primarily of local populations (Tlingit and Euro-American) utilizing non-domesticated species to produce a way of life integrating the consumption and sale of local products obtained by hunting and fishing from a wide-range of spaces now defined as common property. The spaces they utilize have been to date a periphery to the American industrial core providing raw products - fish as food - primarily for the elite of the core regions. What used to be peripheral space, however, is being appropriated by core hegemonic elites who now require that space and its processes be redefined to meet their recreational and quasi-religious ("ecospiritual") purposes. The leadership of the NPS are doing this by mobilizing and allying with a relatively small sector (the leadership of the environmental organizations) of the public that has disproportionate control over the powerful tool of government. As "white-stream" (Denis 1995) elite numbers and wealth increase due to the aging of the baby boomer generation, and their desires change, more and more the experience of natural beauty (defined in "ecospiritual" terms) becomes a compelling, acquired need and not merely a leisurely pastime of play. They no longer require the fish as food from these locales and even denigrate the production of it as atavistic, destructive or immoral. The "marine reserve" concept, with its implicit notion of sanctification and protection for an endangered world, provides an additional biological/ecological reason to strengthen the rationalization for displacement and the justification for appropriation on the unchallengeable grounds of "saving the world." Although there are no endangered marine species and the local producers have demonstrated strong commitments to environmental protection of terrestrial and marine resources, the framing of the need for a "marine reserve" in terms of worldwide patterns of over-fishing, ecosystem disruption, stock declines, and species endangerment provides additional justification for disenfranchising fishermen, both Tlingit and Euro-American.

The acceptance and embedding of the "marine reserve" concept in the regulatory rule proposed in April, 1997 by the NPS took advantage of the historical moment when commercial fishing is being held responsible for declines in fish stocks on a worldwide level. The extreme position seeking closure of the entire bay as a marine reserve was a precipitous inclusion advanced without public disclosure or discussion. Perhaps this process stimulated compromise efforts of local environmentalists (both professional and avocational) to advance the benefits and

objectives of a “marine reserve” on a more limited basis which would sustain the livelihoods and values of most of their commercial fishermen neighbors. What this sequence of events probably means is that controversy and conflict over the issue are unlikely to give way in the near future to a collective, locally empowered process that respects and makes a place for commercial fishing in Glacier Bay. (7)

Notes

1 The author conducted research on the history and contemporary patterns of commercial fishing in Glacier Bay National Park waters under the sponsorship of the National Park Service, Alaska Region. The research included interviews with fishermen, field observation of commercial fishing activities, participant observation in communities, observation at stakeholders meetings and document review. The materials presented in this paper do not necessarily reflect the views of Glacier Bay National Park nor the National Park Service.

2 In 1966, a general park service regulation was passed banning commercial fishing activities in all national park waters. No specific review, evaluation or consideration was given to the circumstances of different parks. While on the books, the regulation was either ignored or not considered enforceable by Glacier Bay National Monument personnel. It is quite possible that local staff were never apprised of it. In 1980, a Department of Interior task force review stated that commercial fishing in NPS waters was a "nonconforming use of park resources" that should be phased out in all system waters "except where it is an appropriate use based on historical or cultural significance" (NPS 1980).

3 A new round of controversy erupted in 1987 following the appointment of a new GBNP superintendent who was persuaded that the Redwood National Park Act of 1983, with language prohibiting commercial fishing "except where specifically authorized by Federal statutory law", was the new mandate. Catton (1995:282) notes that Alaska NPS officials did not comment on the regulation implementing the law ostensibly due to their confusion over whether it applied to saltwater or freshwater.

4 In the preferred alternative to the proposed rule, the NPS has called for the development of a "cultural fishery" in which "traditional techniques" would be taught to tribal youth. The concept has been only minimally developed with a suggestion that it might be modeled after the educational permit fishery authorized by the State Board of Fisheries for one tribal fishery (NPS 1998).

5 Most recently the marine biologists' perspective has been advocated by Elliot Norse, President of the Marine Conservation Biology Institute. In a May, 1998 posting entitled "Protecting Marine Life in Glacier Bay National Park", he urged his membership and other marine biologists to advocate for the total closure of Glacier Bay to commercial fishing on the grounds of declining worldwide fish catches and the need to protect endangered stocks. In replying to a counter posting by Robert Bosworth, Associate Director of the Alaska Department of Fish and Game, which emphasized the MCBI's lack of attention to the social and economic

costs of their proposal, Norse attempted to justify his lack of concern for local human users by equating fish stocks in Glacier Bay as in need of protection similar to that provided to buffalo in Yellowstone National Park and to egrets in Everglades National Park. Such a comparison is irresponsible since, with the exception of certain rockfish species, there is no fish species or stock in Glacier Bay National Park that could be considered threatened, let alone endangered (NPS 1998b).

6 While the conservationist crisis contributes to the rationale for closing down commercial fishing in Glacier Bay, it also carries with it the implication of halting sport/recreational fishing (a presently authorized use) and even constraining or eliminating large cruise vessel access to the Park (cf. GBNP staff: "consternation" over non-local marine biologists assumption that cruise ship visits have been designed to be compatible with Park conservation values - USGS 1997).

7 It must be noted that the future of Glacier Bay National Park waters is also being played out in Congressional legislation proposed by Senator Murkowski of the Alaskan delegation. The crisis round of stakeholder meetings during the first half of 1998 were aimed at producing a compromise that could be passed by Congress. Needless to say, powerful political forces are pulling the Governor of Alaska in opposite directions over this issue, and seem to have neutralized him. During the previous period of crisis in 1990, then Governor Hickel was a strong proponent of State jurisdiction and a supporter of the fishermen. The political alliance that elected Governor Knowles, however, includes both fishermen and environmentalists and thus substantially changes the current political equation.

Bibliography

Brown, Bill. 1998. "Conceptual Approach to Commercial Fishing in Glacier Bay." Paper presented to [Glacier Bay] Commercial Fishing Workshop, February 3, 1998. Juneau, Alaska.

Bohnsack, J. A., H. Kumpf, E. Hobson, G. Hunstman, K. W. Able, S. V. Able and Stephen V. Ralston. 1989. "Report on the Concept of Marine Wilderness. Ad-hoc Committee on Marine Wilderness, American Fisheries Society." Fisherie 14(5):22-24.

Catton, Bruce. 1995. Land Reborn: A History of Administration and Visitor Use in Glacier Bay National Park and Preserve. Anchorage: National Park Service.

Catton, Bruce. 1997. Inhabited Wilderness: Indians, Eskimos and National Parks in Alaska. Albuquerque: University of New Mexico Press.

Dauenhauer, Dick, and Nora. 1987. Haa Shuka, Our Ancestors: Tlingit Oral Narratives. Seattle: University of Washington Press.

Denis, Claude. 1997. We Are Not You: First Nations and Canadian Modernity. Petersborough, Ont.: Broadview Press.

- Dugan, J. E. and G. E. Davis. 1993. "Applications of Marine Refugia to Coastal Fisheries Management." Canadian Journal of Fisheries and Aquatic Sciences 50:2029-2042.
- Hale, Lynne, and R. Gerald Wright. 1979 The Glacier Bay Marine Ecosystem - A Conceptual Ecological Model. Anchorage: National Park Service.
- Hoonah Indian Association. 1998. "Subsistence and Commercial Fisheries in Glacier Bay." Resolution #98-02.
- Koehler, Bart, and Greg Strevler. 1998. "A Refinement of Our Ideas for a Middle Ground Solution on the Question of Fisheries in Glacier Bay Proper." Paper presented to [Glacier Bay] Commercial Fishing Workshop, February 3, 1998. Juneau, Alaska.
- LiPuma, Edward, and Sarah Keene Meltzoff. 1997. "The Crosscurrents of Ethnicity and Class in the Construction of Public Policy." American Ethnologist 24(1):114-130.
- McClanahan, T. R. 1990. "Are Conservationists Fish Bigots?" Bioscience 40(1):2.
- McGoodwin, James R. 1990. Crisis in the World's Fisheries: People, Problems, and Policies. Stanford: Stanford University Press.
- National Park Service. 1998a. "NPS Desired Outcomes and Principles for Resolving Glacier Bay National Park Commercial Fishing Issues." Paper presented to [Glacier Bay] Commercial Fishing Workshop, February 3, 1998. Juneau, Alaska.
- National Park Service. 1998b. Commercial Fishing Environmental Assessment - Glacier Bay National Park and Preserve. Anchorage: National Park Service, Alaska Region.
- National Research Council. 1996. The Bering Sea Ecosystem. Washington, DC: National Academy of Science Press.
- Pauly, Daniel, Vill Christensen, Johanne Dalsgaard, Rainer Froese, Francisco Torres Jr. 1998. "Fishing Down Marine Food Webs." Science 279:860-863.
- Pratt, Ken. 1994. They Never Ask the People: Native Views about the Nunivak Wilderness. In Key Issues in Hunter-Gatherer Research, edited by E. Burch and L. Ellanna. p. 333-356. Providence: Berg.
- Strevler, Greg. 1997. Marine Reserves: What They Are, Where They Now Occur, What Their Benefits Are, and How They Might Be Applied to Glacier Bay. Gustavus: Icy Strait Environmental Services.
- USGS 1997. Marine Reserves: Possible Applications for Glacier Bay National Park and Preserve. Proceedings of the Interagency Meeting. Anchorage: USGS/Biological Research Division.

Walters, B .B., and M. Butler. 1995. Marine Protected Areas and Sustainable Fisheries. In Proceedings of the Symposium on Marine Protected Areas and Sustainable Fisheries conducted at the Second International Conference on Science and the Management of Protected Areas, Wolfville, Nova Scotia: Science and Management of Protected Areas Association.

Walters, B. B. and Y. Renard. 1992. Community Participation in Protected Areas - Planning and Management in St. Lucia. In Science and the Management of Protected Areas, edited by J.H. Willison et al. p. 217-222. Amsterdam: Elsevier.

Williams, Nigel. 1998. "Overfishing Disrupts Entire Ecosystems." Science 279:809.