



Could the San Juan Islands National Wildlife Refuge Serve to Protect Marine Areas? Building on Existing Institutions and Legal Authorities to Create Marine Protected Areas

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The San Juan Islands National Wildlife Refuge (San Juan NWR) is comprised of 83 small islands, rocks, and reefs scattered throughout the San Juan Archipelago in the inland waters of Washington State. Current guidelines, set forth by the U.S. Fish and Wildlife Service (USFWS), advise vessels to stay 200 yards offshore from refuge sites to provide a marine buffer for birds and marine mammals who utilize the refuge (Murray, 1998). Compliance with the existing USFWS guidelines provides inherent protection to the intertidal and subtidal resources within these marine buffer zones and could arguably constitute a de facto network of marine protected areas (MPAs) in the region. This article explores how marine areas currently set aside from public use and/or adjacent to upland protected areas, such as the San Juan NWR, could provide a politically feasible and cost-effective means for establishing MPAs. The idea is to build upon existing upland management by creating partnerships with other agencies and institutions in order to provide more organic management to marine areas and increase protection to the marine sources.

Keywords institutions, legal authorities, marine protected areas, MPA, National Wildlife Refuge, NWR, partnership, USFWS

Introduction

Located in the inland waters of Washington State near the United States/Canada border, the San Juan Islands National Wildlife Refuge (San Juan NWR) consists of 83 small islands, rocks, and reefs scattered throughout the San Juan Archipelago (Figure 1). Establishment of the refuge began in 1914, by the U.S. Fish and Wildlife Service (USFWS), for the primary purpose of providing protection to migratory birds. USFWS guidelines currently advise vessels to stay 200 yards offshore from all but two of the refuge sites to provide a marine buffer for birds and marine mammals who utilize the refuge (Murray, 1998). Compliance with the existing guidelines provides inherent protection to the intertidal and subtidal resources within these marine buffer zones and could arguably constitute a *de facto* network of marine protected areas (MPAs) in the region. For the purpose

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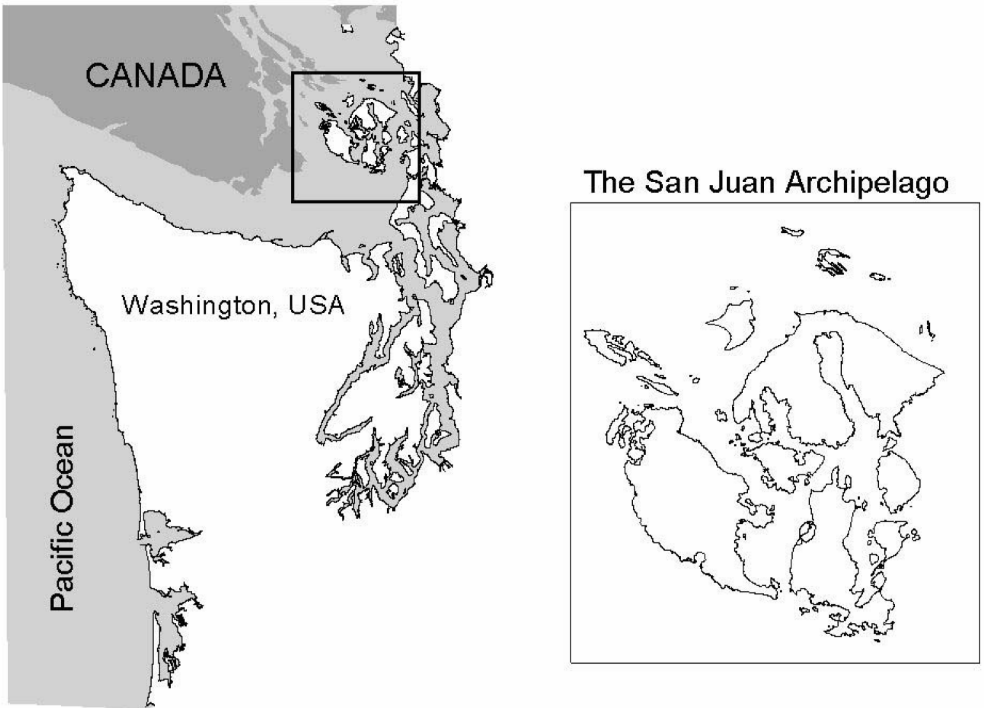


Figure 1. The San Juan Archipelago is located in the inland waters of Washington State near the United States/Canada border. Within the archipelago lies the San Juan NWR, which is comprised of 83 small islands, rocks, and reefs scattered throughout the region.

of this article, MPAs are defined as any marine area set aside for management in order to provide some level of protection to the living marine resources.

Marine areas currently set aside from certain public uses or adjacent to upland protected areas may provide a foundation for the establishment of MPAs. Building on such a foundation could prove to be a politically feasible and cost-effective means of establishing and managing an MPA. Greater protection may be provided to these marine areas and the resources by creating partnerships among existing agencies and institutions as well as by finding creative means in which to utilize legal authorities to meet management goals.

This article will explore why and how the San Juan NWR could be used as a foundation to establish an MPA network and how comparable situations in other regions may be able to provide an avenue for the protection of marine resources through similar methods.

Considerations in Establishing an MPA

Establishing a marine area already set aside from public use or adjacent to an upland protected area as an MPA may not always be appropriate. In trying to determine whether a marine site is suitable for development as an MPA the following should be considered: (1) Is protection of the resources warranted? If providing additional protection to marine resources cannot be justified perhaps time and energy would be better spent somewhere else. (2) Are other management strategies better suited to address the resource issues in the region? MPAs can be an effective management tool but are not the right tool for every marine resource issue. Issues may be better solved through other

management strategies. (3) Is there a management strategy that may have greater political or social acceptability that can achieve the same level of protection? (4) Is the timing right to initiate a strategy for establishing an MPA? Windows of opportunity can help ensure success of an initiative. If the political climate is not right, this may not be a favorable time to implement an MPA initiative.

The San Juan NWR is arguably suitable for designation as an MPA network for several reasons. First, over the past several decades the region surrounding the San Juan Archipelago has faced sharp declines in living marine resources such as bottomfish populations, marine bird populations, and some populations of marine mammals (West, 1997). Concomitant with these declines has been increased recreation, tourism, and urbanization which inevitably has created greater demand for some marine resources and increased degradation of marine habitats (Dowty & Redman, 2002; OFM, 2002; Whale Museum, 2002). Protection of the resources is certainly warranted.

Second, the multitude of marine resources declining coupled with heavier demands on the marine environment suggest that an ecosystem-based management approach might best address the resource issues in the region. Ecosystem-based management can help to “ensure the conservation of diverse species assemblages and maintain genetic diversity” as well as maintain “the full range of habitat types . . . necessary for food and shelter to support different stages in the life histories” of marine organisms (National Research Council, 2001). Provided that MPA management is geared toward ecosystems and not single species, an MPA network could serve as a suitable management tool for protection and recovery of local marine resources.

Third, MPAs have gained acceptability as a management tool in the region over the last several years. The early 1990s witnessed a failed attempt to establish a National Marine Sanctuary (NMS) in the region. Failure of the initiative was largely due to unwillingness of the general public to place itself in a position where they could be asked to give up marine areas from public use. Furthermore, with the coming of the National Oceanographic and Atmospheric Administration (NOAA) into the region (the federal agency responsible for the NMS program) came the perception that citizen’s rights were being infringed upon (Don, 2001).

Although the federal government was not able to establish an MPA in the area, the declining state of the resources was recognized by citizens and inevitably led to a “bottom up” approach to resource protection. Since the time of the failed sanctuary initiative San Juan County has established eight voluntary MPAs, through citizen initiative, geared toward recovery of bottomfish populations. This seems to indicate that MPAs have gained at least some social and political acceptability in the region.

Because USFWS has been a presence in the area since 1914, this initiative should not carry the same perceived threat of the federal government as did the failed NMS initiative. Furthermore, because marine areas surrounding San Juan NWR sites are already, at least theoretically, exempt from public use this MPA initiative would not ask the public to set aside new areas from use.

Fourth, the timing is right. San Juan County Board of County Commissioners and Marine Resources Committee have begun to explore current and potential effectiveness and/or utility of MPAs for protection and recovery of local marine resources. This suggests that the political climate is right for initiating establishment of an MPA. Coinciding, under mandate by the National Wildlife Refuge System Improvement Act of 1997, the San Juan NWR is scheduled to undergo a comprehensive conservation plan (CCP) beginning within the next year (K. Ryan, USFWS personal communication, September 19, 2001). There is great opportunity here for USFWS to incorporate marine areas into their management plan, thereby establishing a *de facto* network of MPAs.

Creating Partnerships to Provide Protection

In order to build an effective MPA from existing sites, better management of the marine areas is needed. How, then, can the greatest protection be provided to the resources? In the United States, environmental and resource management regimes are driven by a plethora of laws, agencies, regulations, and court decisions. The environment and resources are typically broken up into artificially small pieces resulting in fragmented management authority between agencies and amongst different levels of government (Fiorino, 1995). Inadequate communication and poor working relationships between agencies adds to even greater fragmentation in management of the environment and resources. Management regimes, as they exist today, prove difficult for implementing management schemes geared toward ecosystems, both on land and in the water. In light of these circumstances, formation of partnerships between agencies will often be needed to provide adequate management to MPAs.

The existing management authority for a site may have little or no authority over marine areas or the marine resources. In these cases MPA management will depend heavily upon the creation of partnerships with other agencies and institutions that can provide the authority or resources necessary to provide protection to marine areas.

MPA planning would benefit from a review of the existing management's authority over marine areas. This would help identify where marine protection is currently provided and where gaps and overlaps exist. Once gaps have been identified, other institutions and legal authorities that could foster management, monitoring, enforcement, and education/outreach to marine areas can be reviewed. Looking at the federal, state, and local level as well as in the private sector can help identify existing and potential institutional arrangements and legal authorities from which to draw upon. From here, existing management can pursue institutional partnerships that are likely to provide the greatest support in protection of the marine areas. Areas where overlap has been identified may be streamlined to provide more cohesive management and potentially reduce management costs.

Currently USFWS authority extends over lands designated as refuge and/or wilderness areas out to the mean high tide line (USFWS, 1978). Any organism found above the mean high tide line, even if submerged under water, is protected. Management for protection also extends to species that are dependent upon habitat of refuge sites. Therefore, protection is granted to sea lions and harbor seals, which use many of the refuge areas as haulout sites. There is no public access or boat landing at refuge sites except at two islands. USFWS guidelines suggest a 200-yard "no entry" area surrounding each refuge site to provide a marine buffer for protecting seabirds, shorebirds, marine mammals, and endangered species on land (Murray, 1998). The "no entry" area is voluntary since USFWS jurisdiction does not extend into the water. No other protection is afforded to marine areas or marine resources surrounding the San Juan NWR under current USFWS authority.

Opportunities for Partnerships

Marine waters surrounding San Juan NWR sites are currently under the management authority of the Washington Department of Fish and Wildlife (WDFW), while the aquatic bedlands are managed by the Washington Department of Natural Resources (DNR). At present, neither WDFW nor DNR has implemented provisions for providing protection to marine areas surrounding any of the refuge sites.

Washington Department of Natural Resources (DNR)

An opportunity for partnership between USFWS and DNR lay in DNR's authority to lease all aquatic lands surrounding refuge sites to USFWS with a provision to protect all lands

leased. This would essentially grant USFWS management of the aquatic lands, including all subtidal and intertidal aquatic plants and the aquatic animals affixed to or embedded in the aquatic bedlands. In the past DNR has provided a similar lease to USFWS, at Protection Island National Wildlife Refuge, located in the eastern Strait of Juan de Fuca in Washington. In 1993, DNR provided USFWS with a lease agreement for all tidelands surrounding Protection Island NWR (Murray, 1998). Lease of aquatic lands surrounding San Juan NWR sites to USFWS would relieve DNR of management duties and associated costs as well as further MPA efforts that have recently been begun by DNR. This demonstrates how partnerships can help share costs and meet dual agency goals.

Washington Department of Fish and Wildlife (WDFW)

Another potential partnership may exist with WDFW, which manages all nontribal commercial and recreational fishing within Washington's state waters. WDFW has the authority to designate marine areas surrounding refuge sites as "conservation areas" which, through fishing regulations, would prohibit harvest or taking of any organism. This would afford the greatest protection to the local living marine resources at refuge sites. In recent years WDFW has begun to designate MPAs throughout Puget Sound to help protect and restore groundfish as well as other marine organisms and their habitat (Palsson, 2001). If marine areas surrounding San Juan NWR sites support populations of groundfish or other organisms of interest to WDFW and were closed to harvest, they would in effect aid WDFW recovery efforts.

Treaty Tribes

Seven treaty tribes have reserved rights to harvest in their usual and accustomed (referred to as U&A) fishing grounds in the San Juan Archipelago. Treaty tribes would inevitably play an important role in the establishment of the San Juan NWR as an MPA network for two reasons: (1) tribes fishing in their U&A grounds are not subject to WDFW regulations, and (2), the tribes are co-managers with WDFW of the marine resources in the state of Washington. There is potential for collaboration between tribes and USFWS on enforcement and monitoring efforts as well as data collection at and around refuge sites.

National Marine Fisheries Service (NMFS) and the U.S. Coast Guard

Providing sufficient enforcement to help achieve basic resource protection at MPA sites is an important, but often problematic, component of MPA management (Causey, 1995). In many instances compliance with rules and regulations of MPAs is increased simply with the presence of an enforcement authority out on the water (Causey, 1995). Due to budgetary and personnel constraints, USFWS is currently present at the San Juan NWR only 1–2 weeks during the summer (Murray, 1998). Eliciting the presence of other enforcement authorities into the region may aid USFWS enforcement efforts and garner greater compliance with San Juan NWR rules and guidelines.

Except for marine mammals found on refuge sites, the USFWS holds no authority under the Marine Mammal Protection Act (MMPA) to enforce protection of marine mammals in the San Juan Archipelago. NMFS could be solicited into the region to provide monitoring and enforcement of the MMPA. NMFS and USFWS could also develop a memorandum of understanding that would allow for USFWS to enforce the MMPA in the region. Similarly, presence of the U.S. Coast Guard in the area could provide monitoring and enforcement of fishing regulations and the MMPA.

Nongovernment Organizations and Local Government

Current education and outreach efforts for the San Juan NWR are provided by The Whale Museum (Friday Harbor), a local nonprofit organization, as well as USFWS. Continued partnership would best be encouraged while future efforts could include collaboration on monitoring and data collection. The San Juan County Board of County Commissioners and the Marine Resource Committee could play a role by providing support and endorsement for the inclusion of marine areas into the San Juan NWR and by helping to promote awareness of the refuge.

Conclusion

This article has explored how marine areas currently set aside from public use or adjacent to upland protected areas, such as the San Juan NWR, may be able to provide a politically feasible and cost-effective means for establishing MPAs. By creating partnerships among existing agencies and institutions, as well as finding creative methods for utilizing legal authorities, there is an opportunity to provide greater protection to marine areas and the resources. The general consensus for establishing effective MPAs is that the establishment process must include both social and scientific inputs (Gubbay, 1995; NRC, 2001). The scope of this article is limited having only explored some of the social and institutional aspects of MPA establishment. In coupling scientific processes with the methods outlined in this article, it is feasible that effective MPAs may be established by building upon existing institutions and legal authorities.

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