

This paper presents two case studies of ICCAs on the coast of British Columbia, Canada. One concerns the Haida First Nation on the Haida Gwaii archipelago. The other concerns the Tla-o-qui-aht First Nation (TFN) in Clayoquot Sound on Vancouver Island. First Nations control over their territories largely ended in the colonial era with land and marine resources coming under the jurisdiction of federal and territorial governments. First Nations quest to sustain their traditional way of life, and eventually regain control over these territories, has been a long, complicated journey. The odyssey, for the Haida, began over 10,000 years ago and for around 4,500 years for the TFN.

Traditional territories extend from coastal watersheds to the open sea. First Nations have heavily depended on access to marine resources, especially salmon and herring, and to old growth forests, particularly for red cedar, the ‘tree of life’ (Turner 2021). A map of the riparian fish forest on Haida Gwaii is a clear demonstration of the socio-ecological links between anadromous fish, terrestrial ecosystems and First Nations culture and resource use in the Pacific Northwest (Broadhead 2009). ICCAs have been established in both territories and provide a clear signal to governments on the direction these First Nations want to take in regaining control of their territories, and providing for their communities, through the land claims process.

The Haida Gwaii archipelago is approximately 10,000 km² in area and about 260 km in length. Graham and Moresby are the largest islands. Haida Gwaii had a population in the tens of thousands in the early 1800’s. This was reduced to about 600, largely through disease. The Haida now make up about half of the archipelago population of about 4230. Haida Gwaii has a small population and is relatively isolated. There were around 36,000 visitors in 2020.

Three First Nations inhabit Clayoquot Sound: the $\lambda a\eta uuk^w i\eta a\eta$ (Tla-o-qui-aht), $a a\eta u u s\eta a\eta$ (Ahousaht), and $h i\eta q^w i\eta a\eta$ (Hesquiaht). They are part of the $n u u \check{c} a a n u \lambda a\eta$ (Nuu-chah-nulth Nations) located along the west coast of Vancouver (Friends of Clayoquot Sound 2022, George, 2003, Horsfield and Kennedy 2014). The Tla-o-qui-aht First Nation (TFN) has a membership of over 1200 and is centered in Tofino (Tla-o-qui-aht First Nation 2022).

However, Clayoquot Sound is a major domestic and international destination for tourism and recreation. Tofino’s resident population was 2526 in 2021 rising to over 22,000 in summer. Over 600,000 people visit Clayoquot Sound each year. Both areas have a history of extensive clear-cut logging in old growth forests, disturbance to anadromous fish habitat, conflicts over access to salmon and herring fisheries and other marine resources. There are limited economic development opportunities for First Nations with an increasing dependence on tourism and recreation.

The catalyst for the establishment of ICCA's began with First Nations opposition to clear-cut logging in old growth forests in the 1970's.

Haida First Nation

The Haida campaigned for many years against logging throughout the archipelago, and for the recognition and protection of cultural and natural resources in the once densely populated coastal zone (Dowie 2017, Gill 2004). In 1974, disputes began over plans to continue clear cutting on southern Moresby Island. In 1985, the Haida Nation designated the area a Haida Heritage Site, the first ICCA. In 1987, logging ended, and in 1993 Gwaii Haanas National Park Reserve and Haida Heritage Site was established. Gwaii Haanas extends from mountain to open sea and is consistent with Haida traditional territory. Tourism and recreation is strictly controlled (Parks Canada 2022).

Duu Guusd on the northwest coast of Graham Island, is the place where the Haida first arrived on the archipelago. The Haida proclaimed Duu Guusd a Tribal Park in 1989 in an effort to exclude all industrial activity from an area of great cultural significance. It had no protection until the Haida and the B.C. Government reached an agreement on land use planning and interim measures in 2001. This led to the statutory designation, in 2008, of Duu Guusd as one of eleven Haida Heritage Sites and Conservancies. These are part of the B.C. Provincial Parks system ('conservancies'). Conservancies extend across the intertidal zone to the nearshore area and are jointly managed by the Haida and B.C. Government. Conservancies are zoned to provide for a range of low-impact, compatible economic opportunities which must not restrict, prevent or hinder these areas from meeting their intended purpose of maintaining biological diversity, natural environments, First Nations social, ceremonial and cultural uses, and recreational values (B.C. Parks 2018).

The establishment of the conservancies, taken together with Gwaii Haanas, Naikoon Provincial Park and ecological reserves means that almost the entire coastline of Haida Gwaii has some form of statutory protection with joint management agreements.

Marine planning has been underway in Gwaii Haanas for decades. In 2011 the B.C. Government and Haida launched the MaPP process for the Haida Gwaii sub-regional planning area. The MaPP plan was approved in 2015 and is being implemented. Special Management Zones (SMZ's) and Protection Management Zones (PMZ's) to provide policy direction for granting tenure and other resource use decisions and extend management measures in the coastal zone (MaPP 2022).

Tla-o-qui-aht First Nation

There was widespread concern in Clayoquot Sound in the 1970's over the decline of herring and salmon, the rapid growth in the seasonal influx of tourists on services and infrastructure, ongoing logging operations in old growth forests and the growth of aquaculture (Horsfield and Kennedy 2014). Protests by First Nations and environmental activists against logging on Meares Island led to an injunction on logging until land claims are settled. In 1984 TFN declared Meares Island a

Tribal Park, the first in Canada. Its watersheds provide the major source of fresh water for Tofino (Grant 2014).

The Kennedy Lake Watershed (Ha'uukmin) Tribal Park was declared in 2008 in keeping with the Haa'uukmin Tribal Parks declaration to protect sensitive ecosystems and cultural resources and to implement watershed management through the zoning strategies. Two more Tribal Parks were designated in 2014 - Tranquil and Esowista – prompted in part to opposition to mining exploration in the Tranquil Creek watershed. The outcome is the entire 190,000 ha TFN territory is covered by the four tribal parks

Tribal Parks are overlain with a patchwork of Crown land, B.C. Parks, forest tenures, private land and portions of Pacific Rim NPR (B.C. Government 2006). TFN aims to be a leading voice for environmental stewardship. The vision of Tla-o-qui-at Tribal Parks is to re-establish a healthy integration of economy and environment in which there is a balance of creation and consumption and a continual investment in biological and economic diversity. Tribal Parks have no statutory protection although the environmental and cultural significance of the area is respected by provincial and federal agencies. For example, the Tla-o-qui-aht and Tofino Council cooperate in comprehensive and sustainable land use planning, and community and infrastructure development (Tofino Official Community Plan). Economic development depends on forestry and fisheries and so the restoration and protection of watersheds is of primary importance. However, conservation within the Province's Tree Farm Licencing Tenure System has proven difficult and costly.

Environmental Impacts

On Haida Gwaii, protected areas cover half of the archipelago and offer protection for cultural heritage and biodiversity. These are complemented by a jointly managed land use planning system which takes into account traditional ecological knowledge of the riparian fish forest. The main concern for ICCA's, and other culturally significant sites, is to ensure that the impact of recreation and tourism activities is carefully managed. Watchmen are employed in several of these sites. Commercial fishing is managed by the Canadian Government and has been the subject of disputes over access and quotas. Concern has been expressed about the siting and development of commercial fishing lodges and infrastructure.

Both Haida and Tla-o-qui-aht hold Tree Forest Licences (TFLs) on their territories. TFLs come with obligations to harvest in the licenced areas. Forestry is an important source of employment and income for both First Nations. Decisions must be made to determine where, and how much, of the annual allowable cut set by the B.C. Government will be made, without compromising the integrity of old growth forests, stands of red cedar, and anadromous fish habitat.

A longstanding concern for TFN is the exploration for gold at the Fandora mine site in the Tranquil Creek watershed. The 5,056-ha site was first explored in the 1930s. In 2013, The B.C. Government approved an expanded exploration permit for two drill sites and several kilometres of road activation. The BC *Minerals Tenure Act* enables Imperial Minerals the right to explore despite the opposition from TFN.

The largest impacts on the ICCAs are the effects of climate change. ICCAs in the coastal zone are susceptible to flooding and erosion from rising sea levels, which adds to existing risks of tsunamis and storm surges. Changes in patterns of precipitation will have consequences for the health of temperate rain forest ecosystems, and increased risk of forest fire. Rising sea water temperature will affect the distribution and abundance of key fish species and sea mammals. In the case of the TFN there may be an impact on water supply. The sustainable management of the Meares Island watershed is essential for the health and welfare of Tofino and area. Reduced rainfall in the summer months decreases available water volumes from July to September, coinciding with the year's busiest daytime population and subsequent demand. Peak water use in Tofino is driven by the number of visitors, which is regulated by available accommodation, rather than residential growth. It was estimated that the water system capacity would be exceeded by 2026 on a low growth scenario and by 2023 on a high growth scenario (Tofino Council 2021).

A recent draft report by the IPCC WGII (IPCC 2022) states that:

'At local to regional scales, climate change worsens the impacts on marine life of non-climate anthropogenic drivers, such as habitat degradation, marine pollution, overfishing and overharvesting, nutrient enrichment, and introduction of non-indigenous species, and that:

'Indigenous Knowledge, and local knowledge provide increasing evidence on the impacts of climate change on ocean and coastal systems, how human communities are experiencing these impacts, and the potential solutions for ecological and human adaptation.'

The report concludes that adaptation measures are rarely able to reverse environmental impacts and that communities need to transform their livelihoods as a result, for example by shifting from fishing to tourism and relocating communities threatened by flooding.

The Haida and Tla-o-qui-aht have been actively engaged in planning for the effects of a changing climate in their territories, particularly on the cultural and natural resources within the ICCAs. Both First Nations have occupied these areas for thousands of years and have a long tradition of responding to a changing and challenging environment and continue to take measures to sustain cultures dependent on salmon and red cedar.

References

B.C. Government (2006). Watershed Planning in Clayoquot Sound Volume 6: Kennedy Lake Planning Unit.
(https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/land-water-use/crown-land/land-use-plans-and-objectives/westcoast-region/clayoquotsound-lud/clayoquot_lud_kennedylake_wshdplan_maps.pdf)

B.C. Parks (2018). (www.env.gov.bc.ca/bcparks/explore/prk_desig.html).

Broadhead, J. (2009). *Riparian fish forest on Haida Gwaii – a portrait of freshwater fish distribution and riparian forests on Haida Gwaii*. Queen Charlotte, B.C. The Gowgaia Institute. (www.spruceroots.org).

Dowie, M. (2017). *The Haida Gwaii Lesson. A Strategic Playbook for Indigenous Sovereignty*. Inkshares, San Francisco.

Friends of Clayoquot Sound 2022. First Nations. (<https://focs.ca/clayoquot-sound/first-nations/>)

George, E.M. (2003). *Living on the Edge. Nuu-Chah-Nulth history from an Ahousaht Chief's perspective*. Winlaw, B.C.: Sono Nis Press.

Gill, I. (2004). *Haida Gwaii*. Raincoast Books Distribution.

Grant, P. 2014. *The Canadian Encyclopedia: Meares Island*. Article Published Online.

Horsfield, M. and Kennedy, I. (2014). *Tofino and Clayoquot Sound: A History*. Madeira Park, B.C.: Harbour Publishing Company Ltd.

IPCC (2022). Final Draft: IPCC WGII Sixth Assessment Report: Chapter 3: Oceans and Coastal Ecosystems and their Services. Climate Change 2022: Impacts, Adaptation and Vulnerability.

MaPP (2022). Marine Plan Partnership for the North Pacific Coast (MaPP). (<http://mappocean.org/>)

Parks Canada (2022). Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site. (<https://www.pc.gc.ca/en/pn-np/bc/gwaiihaanas>)

Tla-o-qui-aht First Nation (2022). (<https://www.tla-o-qui-aht.org/>)

Tofino Council (2021). Tofino Official Community Plan.

Turner N.J. (2021). *Plants of Haida Gwaii*: Harbour Publishing; 3rd edition (April 24, 2021)