Beyond the Bird Sanctuary: The Evolution of Maplewood Flats and Adaptive Ecological Practices

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Brief History - Competing Interests

Since 1993, Maplewood Flats Conservation Area has been managed by The Wild Bird Trust of BC, but the landscape is situated within the traditional and unceded territory of the Tsleil-Waututh Nation (TWN). Prior to settler contact and industrialization, the land we now call the North Shore was made up of contiguous mudflats across Səlílwətaɬ (Burrard Inlet). The TWN has a strong historically reciprocal relationship with the Burrard Inlet, where it offered food security to the Nation and was, in return, managed for its resources and marine life (Wild Bird Trust of BC, 2018a).

The future use of the mudflats has always been controversial, marked by the tension between conservation, preservation and development. The area's population saw significant growth in the 1960s, as many were fleeing from the increasingly urbanized Vancouver. The proximity to nature and liberty from urban establishments attracted a community of artists, hipsters and outsiders who lived in the shacks built on stilts in the intertidal flats (Griffin, 2015; Lawrence, 2021). Residents were soon evicted by Mayor Ron Andrew's civic order, which cited safety hazards and the municipality's need to respond to development pressure (Fresco & Paterson, 1972). The terrestrial area above the mudflats, now accessible to the public, was subsequently created by dumping 1.5 to 2 metres of fill material over the existing mudflats to build a port facility (Mooney, 2010).

Figure 1. [Three views of squatters' shacks, Dollarton Hwy. just west of Cates Park]. (ca May 1982). MONOVA: Archives of North Vancouver (Inventory # 6128), North Vancouver, BC, Canada.

But the filled area was never built upon. Following the discovery of dioxins in Howe Sound's commercial fish catches and the urban encroachment into the Lynn Canyon Park woods,

environmental awareness grew in the 1980s-90s. Many development projects for the flats were proposed to the District Council but were shot down due to fierce opposition from residents at the time (Gram, 1990; “Invaluable Flats Should Be Preserved,” 1988). As development halted, nature began to take over. Maplewood Flats gradually became an ecological haven for over 8,000 water birds and native mammals during the winter and migratory periods (“Sanctuary Pushed: [4* Edition],” 1989).

Figure 2. [Consists of one negative of he Maplewood Flats shoreline.]. (ca 199-?). MONOVA: Archives of North Vancouver (Inventory # F106-S29-f27-11), North Vancouver, BC, Canada.

With a petition of over 3000 signatures, the Western Canada Wilderness Committee proposed to preserve the 27.5 hectare terrestrial area undergoing ecological succession as a wildlife habitat and sanctuary to the North Vancouver district council (“Sanctuary Pushed: [4* Edition],” 1989). This eventually prompted the transfer of administration and management rights to Environmental Canada for 49 years (Bohn, 1993). Now a Provincial Wildlife Management Area, Maplewood Flats includes one of the last and largest remaining mudflats in North Vancouver as the rest of the coast has been industrialized.

Ecological Conservation and Cultural Preservation

In 1997, landscape architect Patrick Mooney was hired to oversee and design a freshwater wetland in Maplewood Flats. Given the lack of freshwater supply on-site, the site was regraded to direct surface run-off to the proposed wetland area. Groundwater is pumped to the wetland to supplement the water levels during the drier summers (Mooney, 2010). Since then, the Wild Bird Trust of BC (WBT) has done further enhancement work, invasives management, and reintroduced native planting through the Coast Salish Nursery program. In less than a decade, Maplewood Flats has recorded more than 230 bird species, a remarkable increase from only 206 when the design was first implemented. Located on the Pacific Flyway, the Flats is a resting habitat for migrating shorebirds en route to the far north or waterfowl who spend the winters on the flats to feed. The coastal subspecies of purple martin, which was virtually absent in North America from the 1940s to the 1990s, has returned to BC in part thanks to the Nest box programs at Maplewood Flats (Grass, 2007).

In addition to the design, MWF's thriving diversity is also a culmination of community stewardship efforts. In this regard, the ongoing work of Wild Bird Trust cannot be overstated. Recognizing that the designation as a conservation area might have continued the exclusion of the Tsleil-Waututh community from Maplewood Flats, WBT's administration and management strategies are centred around honouring and sharing Indigenous knowledge of wildlife and Coast Salish culture in culturally appropriate ways (Wild Bird Trust, 2018a). The shift from merely restoring the ecological condition of the site to the broader socio-ecological landscape in WBT's management strategy reflects changing ideas of ecology which acknowledge the complexity and uncertainty in ecosystems.

Research in the early 2000s began to highlight the importance of a dynamic knowledge acquisition process that often emerges within local institutions and organizations. Management and governance of these systems require flexibility and capacity to respond to environmental feedback (Folke, 2004). Traditional ecological knowledge is culturally evolved and developed through daily and long-term interaction with the landscape. It contributes to not only an understanding of the impacts of management practices on long-term ecological structure, but also the enhancement of

their flexibility and adaptability (Gadgil et al., 2001; Watson et al., 2003). The Coast Salish Plant Nursery is a WBT partnership program with the TWN that aims to promote the cultural connection of Coast Salish plants and their importance in improving wildlife and habitat. Established in 2009, the nursery hosts regular workshops with local Indigenous ethnobotanists and nursery experts to educate the public on the living history of Coast Salish culture and ecology. More importantly, it offers an opportunity for the local community to materially participate in the decolonization and restoration of the landscape, where native plants are prevented from establishing by garden plants like ivies, English holly, and *Daphne laureola* that encroached into the forests ("Building a Community of Practice for Ecological Regeneration and Land Justice: The Coast Salish Plant Nursery at Maplewood Flats," 2023; Carey, 2022). By managing invasive species and restoring native plant ecosystems, these practices preserve TWN's traditional access to traditional food and medicine with food and habitat for wildlife. The focus on local ecological knowledge and community participatory action in WBT's operations reflects evolving ecological practices and the growing importance of traditional knowledge in ecosystem management.

Figure 3. Wild Bird Trust of BC [@maplewoodflats]. (2023, May 26). *Our Coast Salish Native Plant Nursery is officially open this Saturday, March 30th!.* [Photograph]/ Instagram. https://www.instagram.com/p/C4_C0WOsvVz/

Since 2017, WBT has been engaging in the development of a Habitat and Cultural Use Plan to facilitate reconciliation with TWN and to address emerging ecological issues at the site (Wild Bird Trust of BC, 2018b). The organization also publishes a biannual publication titled *Wingspan* which addresses topics related to the effects of climate change on birds and the processes of conservation and reconciliation (Wild Bird Trust of BC, 2018c). With over half of the WBT board members belonging to the Tsleil-Waututh Nation, the emphasis on Indigenous leadership and partnership supports efforts to decolonize conservation work that often perpetuates legacies of exclusion and colonialism.

Indigenous-led Landscape Management

From an industrial brownfield to a conservation area, MWF's evolution echoes the broader recognition of a socio-ecological landscape that stewardship and restoration practices operate within. It serves as a space for nature and cultural heritage conservation, fostering mutual learning, respect, and trust among humans (and perhaps non-humans). Policy frameworks such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and Indigenous Community-Conserved Areas (ICCAs) reaffirm the rights of First Nations governments in protecting and conserving ecosystems. Maplewood Flats today not only functions as a wildlife sanctuary but also stands as a model that prioritizes and respects the role of Indigenous leaders and knowledge in contemporary landscape management.

References

Bohn, G. (1993, June 7). Maplewood Flats saved as a wildlife preserve: [1* Edition]. The Vancouver Sun, B10. Canadian Newsstream.

Building a Community of Practice for Ecological Regeneration and Land Justice: The Coast Salish Plant Nursery at Maplewood Flats. (2023). Wingspan, Spring/Summer, 42–45.

Carey, C. (2022, April 9). Wild Bird Trust's Coast Salish nursery wins North Van district heritage advocacy award. North Shore News. https://www.nsnews.com/local-news/wild-bird-trusts-coast-salish-nursery-wins-north-van-district-heritage-advocacy-award-5248869

Folke, C. (2004). Traditional Knowledge in Social–Ecological Systems. Ecology and Society, 9(3). https://doi.org/10.5751/ES-01237-090307

Fresco, R., & Paterson, K. (Directors). (1972). Mudflats Living [Documentary]. National Film Board of Canada. https://www.nfb.ca/film/mudflats_living/

Gadgil, M., Olsson, P., & Folke, C. (2001). Exploring the role of local ecological knowledge in ecosystem management: Three case studies. In Navigating Social-Ecological Systems (pp. 189–209). Cambridge University Press. https://doi.org/10.1017/CBO9780511541957.013

Gram, K. (1990, January 10). Time to stop abusing nature: [3* Edition]. The Vancouver Sun, NS3.

Grass, A. (2007, March 7). Habitat loss threatens wildlife: [Final Edition]. North Shore News, 27. Canadian Newsstream.

Griffin, K. (2015, January 9). Tom Burrows & the mythology of the Maplewood Mudflats squatter community. The Vancouver Sun. https://vancouversun.com/news/staff-blogs/tom-burrows-the-mythology-of-the-maplewood-mudflats-squatter-community

Invaluable flats should be preserved: [3* Edition]. (1988, November 26). The Vancouver Sun, B4.

Kwan, B. (2020). Cultural and ecological management planning at Maplewood Flats. Wingspan, Fall/ Winter, 32–33.

Lawrence, A.-M. (2021, October 29). The Maplewood Mudflats, Dollarton – then and now. North Shore Heritage Preservation Society. https://www.northshoreheritage.org/blog/21/10/29/the-maplewood-mudflats-dollarton-then-and-now

Mooney, P. (2010). The Denizens of Maplewood Flats: Abundant Life on a Brownfield Site: Landscapes/Paysages. Landscapes/Paysages, 12(1), 14–15.

Sanctuary pushed: [4* Edition]. (1989, March 7). The Vancouver Sun, B9. Canadian Newsstream.

Schwartz, M. (2005). Designer, client and user. In S. Harvey & K. Fieldhouse (Eds.), The Cultured Landscape: Designing the Environment in the 21st Century (pp. 81–91). Taylor & Francis. https://doi.org/10.4324/9780203642252

Watson, A., Alessa, L., & Glaspell, B. (2003). The Relationship between Traditional Ecological Knowledge, Evolving Cultures, and Wilderness Protection in the Circumpolar North. Conservation Ecology, 8(1). https://doi.org/10.5751/ES-00589-080102

Wild Bird Trust of BC. (2018, October 17a). About WBT. Wild Bird Trust of British Columbia. https://wildbirdtrust.org/about-wbt/

Wild Bird Trust of BC. (2018, October 17b). Habitat and Cultural Use Plan. Wild Bird Trust of British Columbia. https://wildbirdtrust.org/programs/habitat-and-cultural-use/

Wild Bird Trust of BC. (2018, October 17c). Wingspan Magazine. Wild Bird Trust of British Columbia. https://wildbirdtrust.org/about-wbt/publications/wingspan-magazine/