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# Loss of a Plant: Cultural and Ecological Effects – a case study from Haida Gwaii



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Nation

# *Haawa / Merci Beaucoup*

- ❖ To Sylvie Blangy for organizing this symposium, and to all the organizers and participants
- ❖ The Council of the Haida Nation, To the Massett and Skidegate Band Chiefs and Councils
- ❖ Parks Canada and the Haida Gwaii Watchmen of Gwaii Haanas National Park Reserve and Haida Heritage Site
- ❖ The many Haida and other indigenous knowledge holders, especially Eagle Clan Chief Ernie Hill Jr. and Helen Clifton of the Gitga'at Nation, Hartley Bay



Barb and Linda Tollas with Helen Clifton at Hartley Bay, talking about the links between Haida and Gitga'at

# Our questions here:



- ❖ What is the impact to a people when culturally important species disappear?
- ❖ How can culturally important species be restored to ecosystems and cultural systems?
- ❖ Proposal: Start with a former **Cultural Keystone Species**... in this case, for Haida, highbush cranberry (*Viburnum edule*)



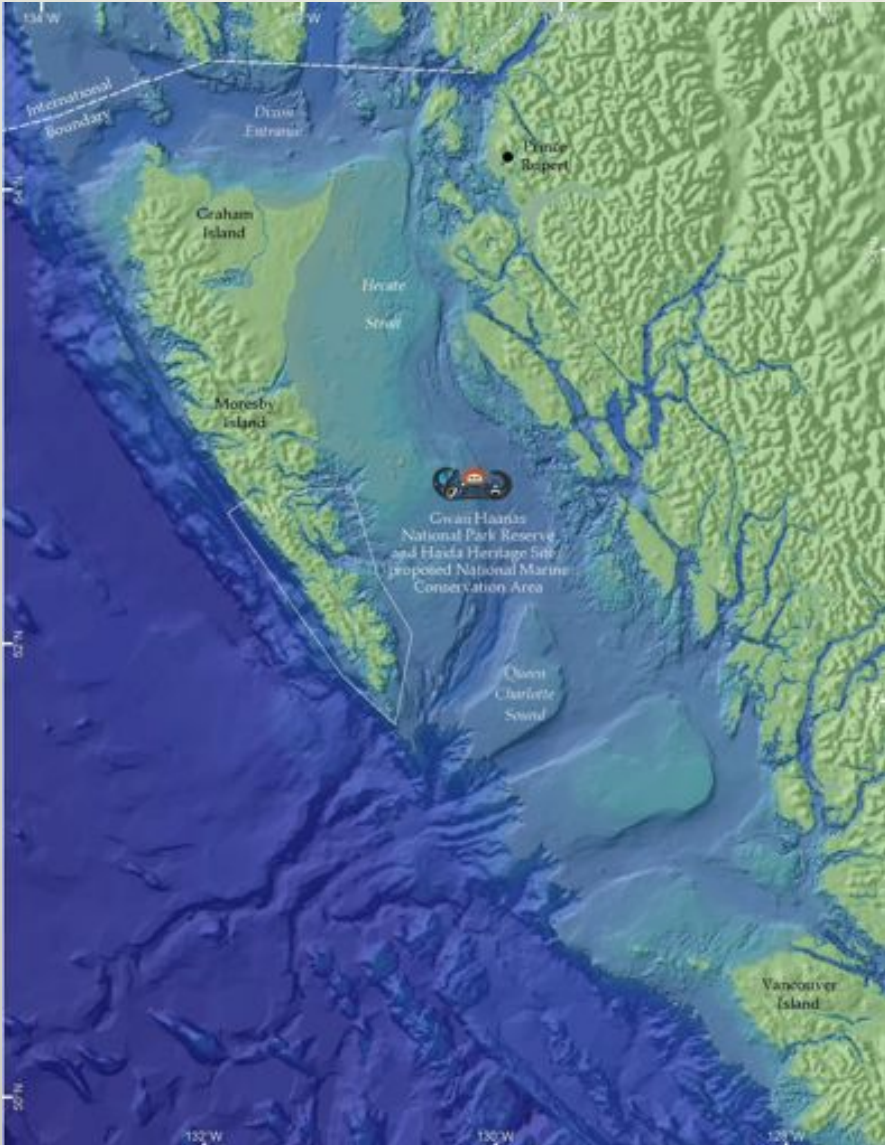
## “Cultural keystone species”

- ❖ certain biological species have particular and special roles in a people’s culture
- ❖ Definition: *“Culturally salient species that shape in a major way the cultural identity of a people, as reflected in the fundamental roles these species have in diet, materials, medicine and/or spiritual practices.”* (e.g. salmon and western redcedar on the NW Coast of N America)

Garibaldi, A. and N. Turner. (2004). Cultural keystone species: implications for ecological conservation and restoration. *Ecology and Society*, 9(3), 1. [online] URL:

<http://www.ecologyandsociety.org/vol9/iss3/art1>

# XAAYDAGA GWAAY (Haida Gwaii)



P.Bartier/internet



# Haida Nation



*Cumshewa pole, 1971, with stinging nettle patch*

- ❖ Long term occupancy of *XaaydaGa Gwaay* – since the Pleistocene
- ❖ Unique language
- ❖ Strong reliance on the forests and oceans for sustenance
- ❖ “Northwest Coast Culture,” with many unique cultural traits: stories, ceremonies, art
- ❖ Hundreds of different plant, animal, bird, fish and shellfish species used by the Haida, with a strong tradition of caretaking

# Haida Nation

- ❖ Two major dialects spoken (Skidegate and Masset; also Alaskan Haida, which is quite similar to Masset)
- ❖ Formerly many more, as reflected in the way the people from various villages pronounce the same word (e.g. abalone); dialects were “blended” together when the people came together at Skidegate and Massett
- ❖ Eagle and Raven: Two major clans, with associated hereditary leaders, lineage groups and family crests based on matrilineal inheritance

SGang Gwaay pole in front of Welcome house at Kay Lnagay





# Coastal Temperate Rainforest with diverse habitats and species



# Major Human Impacts today

- ❖ Elders and those familiar with the way it used to be have witnessed major changes and losses in many parts of the islands
- ❖ Habitat loss from development and industry; many of the original Old Growth Forests have been cut down
- ❖ Fisheries are declining (herring, salmon, halibut...)



Log sort near Alliford Bay, Haida Gwaii; shorelines, estuaries, waterways particularly affected by industrial logging

# Changes... Lifeways



- ❖ Moresby Island, showing 3<sup>rd</sup> growth forests, very stressed, with many trees showing needle loss
- ❖ Increasingly, peoples' homes and lives have been distanced from their surrounding environments.
- ❖ Children spend major time in school or in houses;
- ❖ Adults spend more time at work and indoors
- ❖ TV and computers

# Introduced species a major threat on Haida Gwaii

- ❖ Many introduced species, both plants and animals (common to many Island ecosystems)
- ❖ On Haida Gwaii **deer** were introduced in late 1800s in Massett Inlet and 1910-1925 in Skidegate Inlet and have now spread to dense proportions
- ❖ Also: raccoons, squirrels, rats, beaver, thistles, foxglove, Scotch broom and many other weedy plants

Deer-browsed huckleberry, near Skidegate



Stockton, S., A. J. Gaston and J-L. Martin. 2001. Where have all the flowers gone? The impact of introduced black-tailed deer on the shoreline vegetation of Haida Gwaii, ...Laskeek Bay Research, 1999- 2000, No. 10.

# *Hlaayii / hlaay.yii*, a Haida Cultural Keystone plant of the past

- ❖ Highbush cranberry (*Viburnum edule*) – a late-fruiting shrub
- ❖ Remembered by Haida elders of generations past
- ❖ Little known to current generations of Haida





# The “other” cranberries

*Sk'aagii chaay* (lowbush cranberry, or lingonberry, *Vaccinium vitis-idaea*), left; *daa'a* (bog cranberry, *V. oxycoccus*), right



# Today

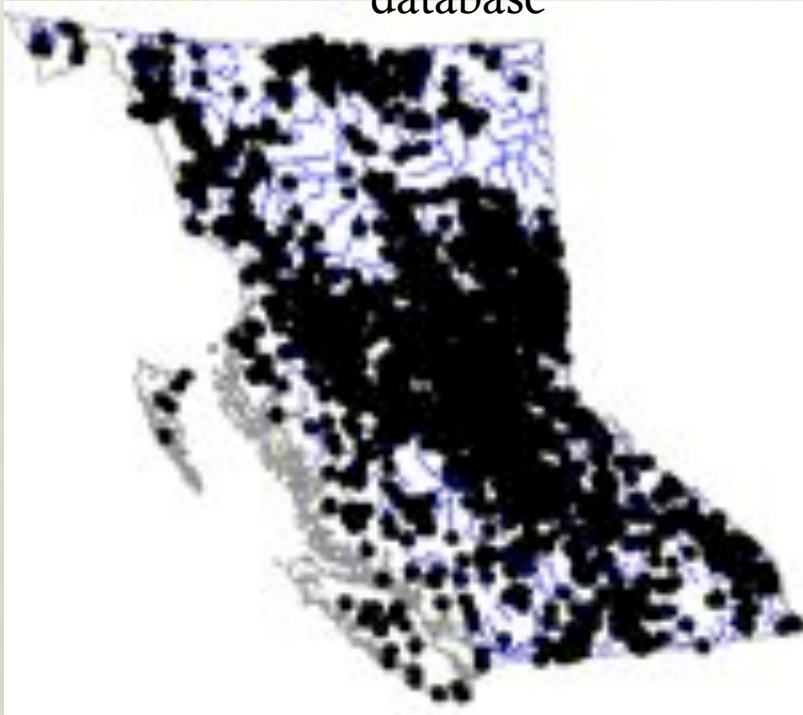


- ❖ Most younger Haida have never had the opportunity to taste highbush cranberries and most are not even familiar with them.

# Shrub Widespread generally



USDA plant  
database



Klinkenberg, Brian. (Editor) 2008. E-Flora BC: Electronic Atlas of the Plants of British Columbia UBC

- ❖ Wet to moist streambanks, swamps and forests in the lowland, steppe and montane zones; frequent throughout BC; N to AK, YT and NT, E to NF, and S to PA, ID, CO and OR



# Formerly: a Cultural Icon

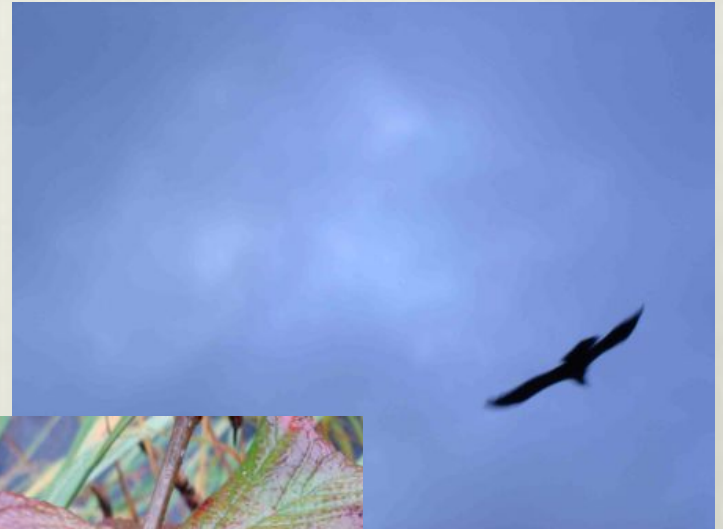


Haida  
bentwood  
cedar  
storage  
box

- ❖ Featured in origin stories and other narratives
- ❖ Harvested in quantity; Preserved over winter in water and oil; important tradegood
- ❖ in social relationships, feasting and in trade; considered a high-status food, served at feasts, potlatches and other special occasions
- ❖ part of a suite of resources and harvesting sites that were “owned”: under the care and proprietorship of key individuals: Haida Matriarchs

# Origin stories

- ❖ Raven brought highbush cranberries to Haida Gwaii: *xuyaa* (S), *yaahl* (M) [Raven] was visiting the Beaver People. Two days consecutively, he was served salmon, highbush cranberries and the inside parts of the mountain goat. On the second morning, *xuyaa* / *yaahl* was taken behind a screen where there was a fishtrap in a creek filled with salmon, and several points on a lake which were red with cranberries. (Charlie Edenshaw to F. Boas in J. Swanton 1905a: 145-146)



# Tending and Proprietorship

- ❖ “...property owned by **Haida** lineages included ...patches of edible plants (including **high-bush cranberry**, bog cranberry and **wild crabapple**...) (Blackman 1990:249). Among the Haida people of Skidegate, high-ranked women are said to have owned **high-bush cranberry** patches behind the village (Ada Yovanovich, pers. comm. to NT, 1995).



# Often considered with Pacific crabapples & other desired foods...

❖ "Then Big-tail also went to Skidegate. After he had performed for a time... all began giving him the food they had saved up **[Highbush] cranberries, wild crabapples,** "*sig.án*" [*sigan* - wild lily-of-the-valley berries], roots put up in cakes, berries put up in cakes, and grease, they gave him....("Big-tail," told by Job Moody to Swanton, 1905:300)

❖ "They brought different sorts of food down out of the Stikine. They brought down **[highbush] cranberries,** soapberries, **crabapples** and dried fruits [or berries]." ("A Story of the Town of A 'nAgun" told by Walter of Yan to Swanton, 1908:537)



# Difficult to find *hlaayii/hlaay.yii* on Haida Gwaii today



- ❖ Clearcut,  
Miller  
Creek, near  
last  
documented  
highbush  
cranberry  
site near  
Skidegate,  
2008

# Cultural impacts of Biodiversity loss: What happens when a species people depended upon in the past is lost?



- ❖ Loss of history and identity
- ❖ Loss of language
- ❖ Loss of connectors between TEK, Language and land
- ❖ Loss of nutrition, health
- ❖ Impacts on social structure and other cultural features (e.g. trade)
- ❖ Lost opportunities for teaching & learning



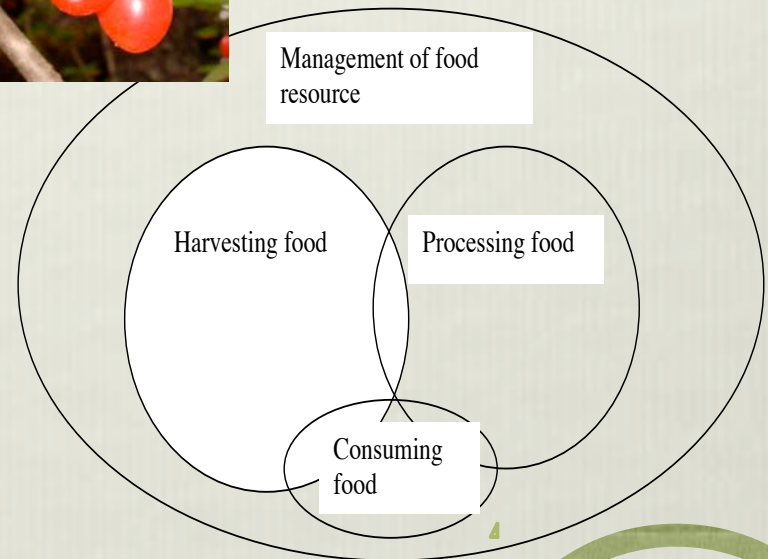
# *Hlaayii / Hlaay.yii* as a Symbol...

- ❖ Symbolic of broader losses of cultural knowledge, language and ecological integrity due to colonial and industrial policies and practices. Introduced deer are just one of a cascade of impacts on the ecosystems and cultural systems of Haida Gwaii.



# Restoration... loss is often relative, not absolute

- ❖ From *Total Traditional Food Use* to *Total Loss of Traditional Foods*
- ❖ Many in-between stages
- ❖ Trends can be reversed... As long as someone, somewhere, knows, and if people want to make it happen





# Ecocultural Restoration of Food Systems



Helen Clifton of Hartley Bay,  
with highbush cranberry juice

- ❖ Cumulative impacts need to be combated with cumulative activities and practices to bring back the use and knowledge of traditional food
- ❖ This is happening on a number of fronts

# Reconnecting historical ties

- ❖ The Haida, especially Cumshewa, have long-standing trading ties with the Gitga'at of Hartley Bay
- ❖ Haida and Sm'algyax (Tsimshian) share a common name for this species: *hlaayii* / *hlaay.yii* (Haida); *lhaya*, *lhaaya* (Sm'algyax)



# Trade network...



Soapberries (*Shepherdia canadensis*) – named '*as*' in Haida after Sm'algyax name '*is*'

- ❖ Highbush cranberries, along with *k'ay* (Pacific crabapples, *Malus fusca*), soapberries, dried berry cakes, oulachens and oulachen grease, halibut, clams and cockles, edible seaweed, native tobacco, dugout canoes, bentwood boxes, woven items, furs and other products
- ❖ Trading traditions with Tlingit, Coast Tsimshian, Nisga'a, Heiltsuk, Haisla and Kwakwaka'wakw peoples

# Ownership traditions



- ❖ Eagle Chief Ernie Hill Jr. with Pacific crabapple (*Malus fusca*)
- ❖ Different patches of highbush cranberries owned by clan chiefs and passed down through generations; cranberry patches can also be gifted.

# Transplanting: *Viburnum*

- ❖ Tsimshian: Wild plants were sometimes transplanted into a garden environment and so they could be cultivated within the villages and towns. This was an easy and old way to keep a supply of **highbush cranberries**, soapberries, or blueberries close at hand. (McDonald 2003: 57)
- ❖ “I tried planting ... [**highbush cranberry**, *Viburnum edule*] behind our house in Kingcome. And, the late wife, we had lots... she used to pick them and jar them. I transplanted them from the river, from the edge of the meadows.... When I’m trapping up the river there in the fall... you... pull them out and, they’re really easy to grow. They multiplied behind the house.” [ca. 1930s, 1940s] (Chief Adam Dick, Quaxsistalla, pers. comm. 1997)

Highbush  
cranberry in  
“orchard  
garden” of the  
Kitsumkalum



# A history of Haida plant cultivation

- ❖ Gardens and orchards at major villages: Cumshewa, Skedans, Tanu and SGang Gwaay
- ❖ Cultivation of Haida tobacco (*Nicotiana multivalvis*), Pacific crabapples (*k'ay*), stinging nettles, saskatoon bushes, springbank clover, and potatoes (post contact) (See Turner 2004 *Plants of Haida Gwaii*)



*k'ay* trees at Cumshewa; drawing of (extinct) *xaayda gulga*, Haida tobacco; *naa'a hlk'aay.yii*, springbank clover at Skedans, 2010



# “Adopting” a plant...



- ❖ Permission from Chief Ernie Hill and Matriarch Helen Clifton to take cutting from the lake above Hartley Bay



# Transplanting & plant management for ecocultural restoration

- ❖ Transplanted cutting of *Viburnum edule* (*hlaayii / hlaay.yii*) in new garden at Kay Llnagaay, Skidegate, Haida Gwaii





# Also: A great discovery!



Finding  
*hlaayii/*  
*hlaay.yii* at  
Mosquito  
Lake (*Gaaw*  
*Kun*  
*Siiwaay*),  
Moresby  
Island,  
Haida  
Gwaii  
(thanks,  
Jonathan!)

# A resilient plant...

- ❖ Roots from cuttings, responds well to pruning, grows well in moist places at forest edges



Highbush cranberry in Kitlope Valley, in tidal marsh along the Kitlope River

# Combating cumulative effects...

- ❖ Any recovery plans will need to take the cumulative effects of environmentally destructive practices into account, as well as implement cultural education programs to ensure that people are able to renew and revitalize their cultural relationships with the species and places being restored



Kay Llnagaay  
Cultural Centre,  
gardens and  
canoe at opening

# Ethnoecological restoration: some principles

- ❖ Support and honour the knowledge holders; they are priceless treasures
- ❖ “Borrowing” from neighbours... a time-honoured tradition
- ❖ “Blending knowledge systems” – traditional management, scientific knowledge can work together: “the old and the new”
- ❖ Work with Nature and natural processes (e.g. regeneration capacity of highbush cranberry)



# Ethnoecological restoration principles... cont.



- ❖ Provide learning opportunities and incentives for children and youth
- ❖ Embracing traditions in a contemporary context;
- ❖ Use with respect and care for other people and the Earth
- ❖ Keep on picking berries, harvesting medicines, and using the gifts of Nature
- ❖ Re-store and re-story

# Giving Back to the Forest and the Ancestors



- ❖ A garden can be used to grow plants, to then reintroduce them to other areas where they are known historically but where they have disappeared
- ❖ May need continued protection...

# *Bringing back Hlaayii: One part of major ongoing cultural and language revitalization for a resilient people*

- ❖ Kay Llnagaay Cultural Centre, Skidegate



*Haawa!*