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Nina at Low Tide, July 2004 K. arolle Wall photo

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News, reviews, and interviews on Community and Conservation



ARCHIPELEGO is published by the Galiano Conservancy Association in the interests of pooling knowledge, encouraging respect and inspiring affection for our natural heritage and for each other.

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About the Cover: In July, the Gulf Islands experienced the lowest tides in decades. Karolle Wall took that opportunity to photograph Loren Wilkinson's lovely *Nina*, which normally rides high at anchor in Retreat Cove.

EDITORIAL: Love and Care – Galiano Style

The people of Galiano have loved this island for millennia. In this issue, our writers bring new perspectives to that legacy of love and care. By learning more, we may care for more. We invite you to become a part of this issue's explorations.

Fragmentary remnants allow Colin Greer to offer us a glimpse into 5,000 years of First Nation attachment to the landscape that we now find so familiar. The last century on Galiano comes into sharper focus in part three of Diane Laronde's examination of love and care of the island, as remembered in the stories, diaries and photo albums of our nearest predecessors. Paul LeBlond lets us eavesdrop on a conversation with Alistair Ross over plans for the Galiano Museum, where keeping physical artefacts helps us connect with those who came before us.

Mayne Islander Terry Glavin opens our eyes to astounding changes taking place beneath the surrounding waters that define our "island-ness". He challenges us to exercise love and care in stewarding a marine abundance that we have presumed would always be ours. Odin Scholz enlightens us on a rhythm of terrestrial ecology that dwarfs the human lifespan. He is part of the forest restoration team applying love and care to their work, returning a grandeur and richness to the land that will move the sensibilities of later generations.

How do we express our love and care for Galiano? The review essay introduces us to Ann Ericksson's fictional account of the intimacy and intensity of life lived on an island beside a larger island. The beautiful colour brochure wrapped around this issue documents the 2004 Up-Close Workshops, during which islanders investigated their relationship to the Galiano landscape. Their findings confirm our affection for place with new words for love, and new ideas for care.

We hope this issue engages you to reflect on your connections to the place you have chosen to know best.

"We Don't See Underwater":

Terry Glavin Talks to Galiano Conservancy Association Members About the State of the Fisheries in Georgia Strait at the 2004 Annual General Meeting. Report by Jillian Ridington

In his talk at the June 15th Annual General Meeting of the Galiano Conservancy Association, fisheries researcher and journalist Terry Glavin made it clear that he is distressed about overfishing in the Strait of Georgia. As Glavin put it, "Those of us who live in south-western British Columbia imagine ourselves to be among the most environmentally-aware peoples of the planet. Vancouver and Victoria were where Greenpeace was born. But the Strait of Georgia has been literally mined of its fish. And overfishing continues on the remnants. Part of the trouble is the absence of a historical baseline. You can see a forested mountainside get logged, and you can see the bare ground and washed-out soil for years afterwards. We don't see underwater. But the picture is much the same. Our old growth marine ecosystems exist only in the tiniest patches."

Glavin knows his facts. The data he presented came from the *State of the Strait* document, on which he assisted Dr. Scott Wallace, and from Glavin's own research paper, "Groundfish: A Case Study." Both these documents can be found on the Sierra Club of B.C. website, along with many other important and interesting publications.¹ Among the disturbing facts that Glavin cited are these:

** The Department of Fisheries and Ocean's (DFO's) entire \$300 million Pacific

budget, which includes the Coast Guard, amounts to less than half the money U.S. government agencies spend every year, just on salmon-conservation initiatives, and just in the Columbia River.

**The lion's share of DFO's west coast fisheries management and science budget is spent on salmon, herring, and a few other species. A mere \$5 million is spent on science with respect to most of the species that comprise the West coast catch - and for an alarming number of those species, there is no "science" done at all.

** In recent years, the overall catch has become concentrated in fewer and fewer boats: we still have thousands of licensed fishing vessels on the coast, but fewer than 100 vessels now catch about two-thirds of all the fish.

** Deep-dwelling fish, about which science knows next to nothing, are making up an increasing proportion of the catch, and for most of these species, there are no catch limits.

** The amount of fish taken from B.C.'s waters every year routinely exceeds 225,000 tonnes. This is roughly equal to the weight of the human population of British Columbia.

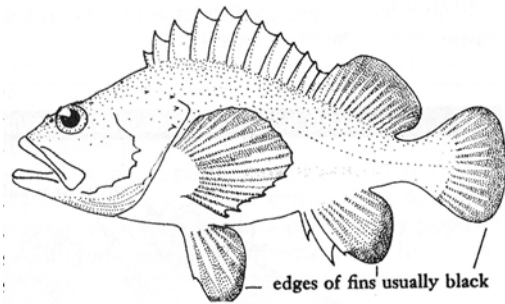
** The West coast's fisheries are now appropriating fully ten per cent of the primary production (photosynthesis-phytoplankton- zooplankton) that occurs in Canada's Pacific waters.

Terry detailed the dramatic loss of fish and other marine creatures in the Strait of Georgia. Here's some of what we've lost:

Whales: There was once a resident population of humpback whales in the Strait of Georgia, a distinct stock. We had whale-watching tours in Howe Sound early in the 20th century, and the whales used to swim into Burrard Inlet. There

¹ www.bcsierraclub.ca

was a burst of whaling in the 1866-75 period, and then again in 1905. The last of the Strait's humpbacks were killed in the winter of 1908. They were taken off the mouth the Fraser River and hauled to Piper's Lagoon north of Nanaimo -- and then they were gone.



Yelloweye Rockfish: *Sebastes ruberrimus* "red snapper"²

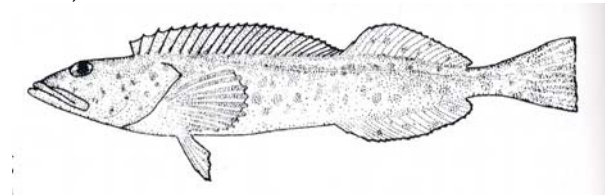
Rockfish: The strait's rockfish are yelloweye (red snapper), china, tiger, black, copper and quillback. They are at about five per cent of their pre-industrial abundance, at the very most. For several years, DFO scientists warned of serial depletion of rockfish reefs and catastrophic overfishing. The Sierra Club made this issue a priority, and fought for a total closure, but they were opposed by sports-charter industry. They did manage to get the Strait recreational bag limit cut from five a day to one a day. They also managed to get the allocation associated with the 70-vessel commercial hook-and-line fleet reduced by two-thirds.

Yelloweye can live to be 117 years old. Rockfish don't reach sexual maturity until they're in their late teens. They bear live young, and ocean conditions have to be just right for a successful spawning

² all pictures are taken from *Probably More Than You Want to Know About the Fishes of the Pacific Coast* 2nd edition. by Milton Love. Santa Barbara CA Really Big Press: 1996, available at the Galiano Conservancy Association library.

event. A period of 25 years between successful spawning events is the norm. Glavin cited a report from Clemens and Wilby, 1961, stating that in February, 1942, several large catches of red snappers were seen at Vancouver fish docks; the fish had been caught near Pender Harbour. These were mostly of large size up to 3 feet (90cm) in length. Now, red snapper are few, and those that are caught are so small that they probably have not reached sexual maturity, and thus have not reproduced.

Lingcod: The depletion of Strait of Georgia lingcod is the largest but least-known fisheries disaster in the history of British Columbia's coast. Lingcod, like rockfish, are believed to be perhaps five per cent of their pre-industrial abundance. A traditional method of catching the tooshqua (lingcod) was by submerging a lure made of wood, using a long pole. When released, the lure would create erratic motions as it rose to the surface, thereby attracting lingcod. At the surface a fisher would be waiting with a spear or net to capture the fish. For this technique to have developed --and presumably be effective -- would require lingcod in considerable abundance and of a large size. This technique would be ineffective today as the lingcod biomass in the Strait has decreased to an estimated 3% of its historical level (Martell and Wallace 1998).



Lingcod: *Ophiodon elongatus*

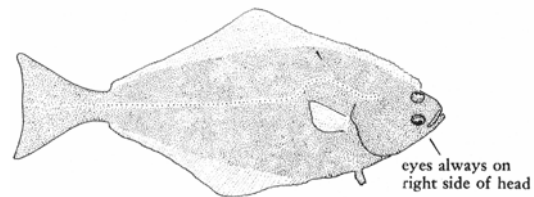
The commercial lingcod fishery in the Strait was closed in 1990. By that time, the

commercial catch had been eclipsed by the sports fishery, which continued until it was shut down in 2001. According to Glavin, "The historical landings are staggering in comparison to today's estimated biomass. Between 1915 and 1925 the landings were approximately 1500 metric tonnes, increasing to 2000 tonnes by the mid-1930s, 3000 tonnes in the mid-1940s, approximately 1500 tonnes by the 1950s, and then a steady decline until the fishery was commercially closed in 1990 after landings of only 41 tonnes."

Glavin told his audience that, "The thing about lingcod is you can't fish for them without running a very high risk of killing rockfish. You can't let rockfish go and expect them to survive. No matter how carefully you release a rockfish, their swim bladders have already exploded. So I don't know what should happen in the event that we do see big lingcod recoveries. Lingcod start spawning at three years of age, and as I recall they can spawn annually and live to 8 years on average. We are hearing reports of localized lingcod abundances. But if we reopen the sports fishery, who knows how many rockfish we'll lose. I suspect rockfish would not be able to sustain the incidental catch rate."

Halibut: Terry quoted W. H. Lomas's 1889 regional report, "When I was last at the Pass [now Active Pass] one man, after a few hours fishing, brought in 300 lbs. of halibut". Although halibut was never considered to be in great abundance in the Strait, it was still frequently encountered in numerous locations.³ One area, Halibut Bank, located in the centre of the Strait, presumably was named by early

fishermen. Even English Bay and Burrard Inlet supplied halibut for Vancouver consumption (Bell 1981; Ketchen et al. 1983). It is unknown how many halibut were in the Strait; historical landings show that 850 metric tonnes were brought fresh into Vancouver's Port in 1898 and another 250 tonnes into Victoria.



Pacific Halibut: Hippoglossus stenolepis

Pacific Cod: Glavin cited Scott Wallace's report for the Sierra Club, which stated, "The introduction of the bottom trawl to British Columbia's waters in 1912 provided the means necessary to capture the Strait of Georgia Pacific cod stocks. The fishery grew slowly and finally peaked in 1938 with landings around 800 tonnes. Production dropped substantially and continued to decline until 1966. Then the landings started to increase until they reached a historical maximum of 1600 tonnes in 1980. Since that time, the fishery has decreased to the point where Pacific cod landings are less than 3 tonnes, but strangely a targeted fishery still exists."

Overall, Glavin believes that lack of knowledge is the major problem. He noted that, "As with many of the species, the present concern is that the stock status is poorly understood. There are no fishery independent measures of abundance. Age structure analysis of the population suggests that the stocks are in stable condition. Therefore, as long as the trawl fleet maintains current landings of less than 100 tonnes per year (compared to 600 tonnes in the 1950s), everything is considered to be OK. Most of the sole and

3. Canada; S.P. 1887 no. 16, p.260

flatfish are landed by the Option B trawl fleet. This fleet has no total allowable catch limits and no observer coverage." The Option B trawl fleet ranges from a dozen to two dozen vessels a year.

But Terry Glavin also had some good news. He told his audience that, "The spawning biomass of herring in the Strait of Georgia last year was roughly equal to the weight of the human population of Alberta. We've lost dozens of locally spawning herring stocks over the decades, but at least the volume is still there."

Other good news: there are probably as many seals as there have been in thousands of years. A recent report estimated that there were 37,000 in South Coast inside waters. There used to be a huge aboriginal hunt for harbour seals, but nobody kills them now. Fraser pink salmon are also important, because their smolts are vital to resident finfish in the Strait. Last year, twice as many pinks spawned in the Fraser as in any year since 1913.

So all is not lost, and it's not too late for action. Terry Glavin urged all of us to start demanding accountability from DFO. As he put it, "Ordinary, regular citizens have to start demanding that DFO bureaucrats behave like public servants and not hired lobbyists for the commercial and recreational industries." There are sound financial reasons for creating Marine Protected Areas: not only do they protect fish for the future, they are cheaper than subsidies. The lead article in the July 15-28th issue of the *Island Tides*⁴ cited a study by World Wildlife International and Britain's Royal Society for the Protection

⁴ *Island Tides*, V.16 no. 13, July 15-28, 2004. Pender Island, BC.

of Birds. Their research indicated that a network of marine protected areas (MPAs) covering 30% of the earth's ocean would cost \$12 to 14 billion annually. At present, \$15 billion to \$30 billion is spent each year on subsidies to commercial fishing. With a new minority federal government that is professing to be aware of - and concerned about - environmental issues, and a "green" NDP close to holding the balance of power, now is a good time to insist that the Department of Fisheries and Oceans save our money - and our fish.

Restoring the Forest in a Plantation: Odin Scholz, Galiano

(An earlier version of this article appeared in *Ecoforestry*, Spring, 2004. Reprinted with permission)

On British Columbia's coast, old growth forests attain an almost enigmatic depth of structural diversity. The trees in coastal forests have evolved to be the driving disturbance force of the ecosystems. As they die or are thrown, they create a mosaic of gaps, giants and everything between. Over the past century, most of these forests have been systematically reduced to even-aged, single species monocultures. For decades, industrial forest management practices have been transforming hundreds of thousands of hectares of forest ecosystems. Industrial forestry practices have continued to define forest management by efficiency of production and harvest; this approach sees forestry as being similar to industrial agriculture. In the process, thousands of hectares of land have been literally wiped clear of nature's evolutionary masterpieces and replaced with crops of simplistic and monotonous plantations or knock-off forests. Galiano Island's managed forests

are no exception. As part of a small team working with the Galiano Conservancy Association to restore the forest on District Lot 63, Galiano, I have been addressing the question: When an intensively managed plantation is abandoned and management values shift from wood cultivation to the ecological integrity of the site, how do we restore the forest in the plantation?



Figure 1: Strait of Georgia: satellite image
Courtesy Galiano Conservancy Association

Galiano Island rises from the Strait of Georgia. Its long Northeast Coast is lapped by a dilution of the Fraser River; the cool Trincomali Channel lies between our west coast and Saltspring Island, Galiano's busy neighbour to the Southwest. The narrow Southeast and Northwest ends of Galiano are separated from Mayne and Valdes Islands by the powerful alternating tidal currents through Active and Porlier Passes respectively. Galiano's climate is ordained by a rain shadow from the Olympic and Vancouver Island mountain ranges. Wet winters and very dry to droughty summers characterize most of the Coastal Douglas-fir moist maritime (CDFmm) biogeoclimatic zone. A dubious distinction

Galiano island shares with the rest of the CDFmm zone is a dearth of once common climax Douglas-fir (*Pseudotsuga menziesii* spp. *menziesii*) forests, which have succumbed to urban, agricultural and industrial pressures (Fig. 1).

The proximity of Galiano Island to BC's metropolises, Victoria and Vancouver, has ensured that most of the island's forests have been modified over the past 100 years. Over one-third of Galiano's forested land has been clearcut since the 1970s. The island's current predominant ecological landscape matrix is young forests, less than 80 years of age. Fringes of gnarled contorted old growth trees find topographical sanctuary clinging to Galiano's cliffs and rugged shorelines. Fragmented remnant mature forest patches mottle the island with a deeper shade of green. These treasure troves are often speckled with the odd crooked and charred mature Douglas-fir tree, likely seen as undesirable through the weary eyes of the early high-grade loggers. These natural history puzzle pieces offer valuable insights into the structure and composition of the primordial forests of Galiano Island; they are glimpses of what once was.

During the fall of 2001, the Galiano Conservancy Association received funding from Forest Renewal British Columbia to develop a restoration plan for protected forestlands on Galiano Island. One of the focus areas was District Lot 63, a 65-hectare parcel of land purchased and protected by the Galiano Conservancy Association, The Pacific Marine Heritage Legacy and the Nature Conservancy of Canada in 1998. District Lot 63 is highly significant in the local landscape, as it is part of a 132-hectare reserve consisting of

three District Lots crossing two watersheds (Fig 2). The Pebble Beach reserve, along with Laughlin Lake, “The Great Beaver Swamp” (both Galiano Conservancy Association holdings), and Bodega Ridge Provincial Park almost form a corridor of protected areas that nearly crosses Galiano Island at one of its narrowest points. The concepts of linkages and connectivity lie at the heart of the Galiano Conservancy Association’s current conservation and restoration efforts.

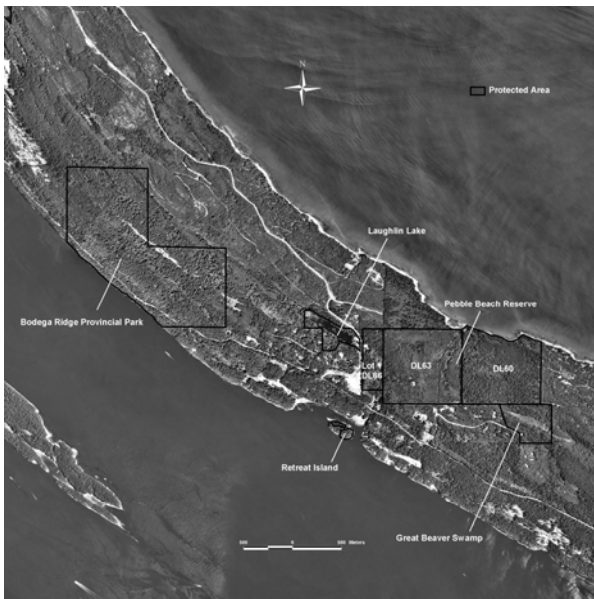


Figure 2: Pebble Beach Reserve & surrounding area:
Courtesy Galiano Conservancy Association

Gaining long-term protection status is crucial to the success of any conservation strategy. However, protected status alone does not ensure the preservation and conservation of ecological integrity. The impact of human disturbance on landscape ecology is so pervasive that restorative land management will be a prerequisite to ecological conservation success in perpetuity. As an example, invasive exotic species such as Scotch Broom (*Cytisus scoparius*), English ivy (*Hedra helix*), English Holly (*Ilex aquifolium*) Daphney (*Daphne laureola*)

and Himalayan Blackberry (*Rubus discolor*) plague Galiano’s ecology, and will continue to pose a disturbance threat to the forest ecology of even remote areas. Recognizing the presence of exotic species on DL63 was a primary impetus for the forest restoration study. The results and recommendations of the study were compiled in a report entitled ‘Restoration Plan for District Lot 63 of the Pebble Beach Nature Reserve, Galiano Island’ (Erickson, Gaylor, and Scholz, 2002).

In order to fully assess the need for ecological restoration in DL63, we needed to consider several questions:

1. What did the forests look like prior to European logging?
2. What has happened to the forests of DL63?
3. What is the forest ecology like now?
4. How is the plantation stand’s successional trajectory progressing?
5. Does the plantation stand’s current successional path maximize the ecological potential of the site?
6. Could we apply principles of ecological restoration to enhance the ecological integrity of the forests of DL63?
7. If so What, Where, When, Why and How?

Addressing these questions involved a thorough study of the DL63 site from both existing data and extensive fieldwork. We studied reference ecosystems including mature and old growth Douglas-fir forests. We had ongoing consultations with experts in various field; Herb Hammond, Forest Ecologist and Forester is our principal consultant. We raised, and continue to raise, many questions from our project, and found some answers through extensive literature reviews. It

became apparent from our information searches that the restoration we were attempting had very few precedents, if any.

Ideally, a restoration project would have an intact old growth forest next door to represent a tangible yardstick for assessing restoration success. Finding intact old growth forests on Galiano, and for that matter in the Coastal Douglas-fir moist maritime zone in general, proved challenging. The lack of remaining old growth means any conservation or protection efforts in this region will be dealing with impacted ecosystems with restoration needs. We started looking at high graded mature forests on Galiano, and carried out inventories to get a feel for the range of diversity in older systems.

The living old growth stands we were able to survey were on Vancouver Island. We carried out surveys at the heavily disturbed Royal Roads University campus forest, where giant Douglas-firs impress upon the soul the capacity these trees have for filling three-dimensional space. Thanks to Art Robinson of the Pacific Forestry Centre, we were able to visit Rocky Point Department of National Defence forests. There, the largest contiguous stand of old growth Douglas-fir forest endures, allegorically fortified by barbed wire and heavy artillery. Surveying the range in densities of large live trees, snags and volumes of CWD (Coarse Woody Debris) in old growth stands

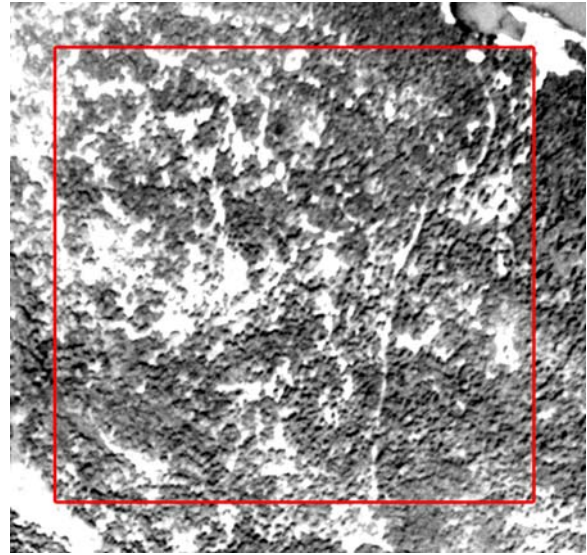


Figure 3.1 DL63, 1962

stands helped us envision the diversity in structure that restoration work may need to target. To expand our reference ecosystem surveys, we carried out stump mapping in selected areas of mature forests of Galiano Island. Our intention was to reconstruct past large live tree densities, giving some targeting guidelines to apply to our thinning treatments.

The hard data from our reference ecosystem surveys was key to our restoration design. Also of immeasurable importance was the emotional and aesthetic experience of bearing witness to nature's old growth Douglas-fir forest. The old growth encounters enabled us to conjure an inspirational vision, as we reconstructed stands from stumps and carried out restoration labour amidst thousands of evenly spaced, twenty-five year old Douglas-fir trees.

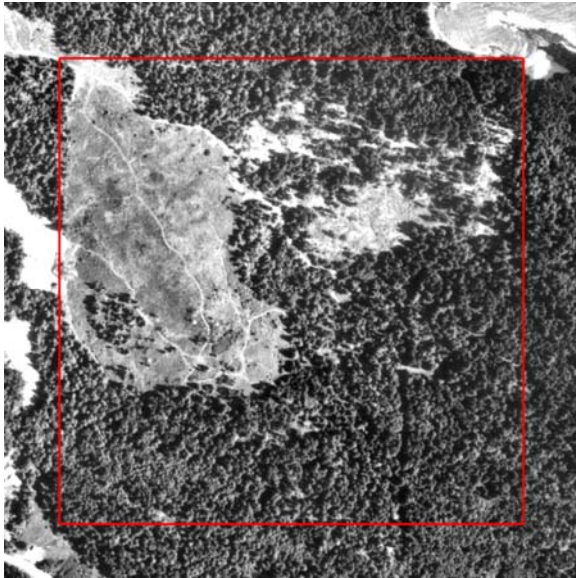


Figure 3.2 DL63, 1972

The human induced disturbance history of DL63 was apparent from our interpretations of air photographs. We scrutinized images taken as recently as 1998 and as far back as the 1930s. The earliest images showed a definite mosaic of textures around the DL63 region. Large trees were interspersed with moderately aged patches as well as shrub-dominated gaps. The forest had no doubt already undergone some selective logging, as an early version of the current main track to the beach was already evident. Successive photos from the 60s and 70s (figures 3.1-3.2) reveal a more intensive selective/high-grade logging taking place -- messy clearcutting, really.

The 1980 air photo is particularly striking as it highlights the surgical efficiency of the peace and love late 1960s' crew-cut and the late 70s' sparkly clean Disco sweep. By the time the 1998 photos were taken, the 25- and 36-year-old plantations of DL63 were well on their way to becoming an exclusive club of canopy hogging Douglas-firs. Despite the intensive and methodical industrial

treatment of DL63's forests, there did remain some relative diversity within the site. We initially imposed 18 discrete ecosystem polygons on the lot by interpreting the 1998 air photo series.

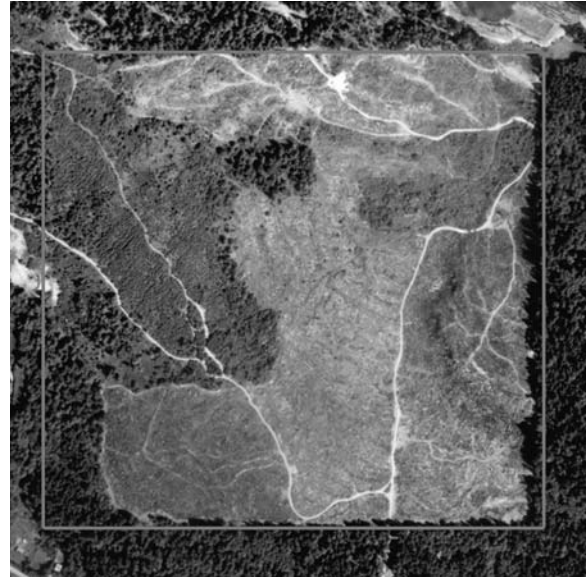


Figure 3.3 DL63, 1980

We then set out to gather field data to ground truth, and find out what was under the canopy of regimented firs. The 65-hectare District Lot was sampled using 20x20m plots located within each polygon to record its stand characteristics. Plots were sampled using data cards from "Describing Terrestrial Ecosystems land management handbook # 25" from the BC Ministry of Environment Lands and Parks. By the end of the study the number of individual polygons more than doubled to 50.

The results of our field and office studies were assessed to give some comparative measure of ecological integrity within the plantation forest. We distinguished polygons based on a combination of soil characteristics and vegetative stages. The polygons were then ranked for study according to a variety of variables including:

- Tree density
- Tree species richness
- Vegetation layer diversity
- Tree seedling occurrence
- Large tree occurrence
- CWD (coarse woody debris) volume
- Snag occurrence
- Exotic vegetation occurrence

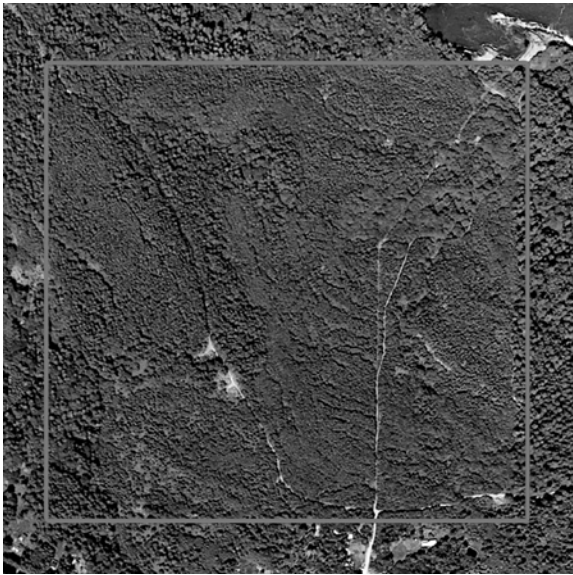


Figure 3.4 DL63, 1998

As one might expect, homogeneity was the overriding impression in the stand, particularly with the deciduous trees having already shed for the winter. Crucial forest structural elements were at a premium throughout most of the District Lot. An unexpected surprise was finding small residual patches of diversity, which were distinguished from the majority of the plantation by the presence of large living trees, CWD and snags. Through retrospective analysis, these patches of diversity were apparent in the 1980 air photo. Many of the residual patches were associated with the meeting of two clearcuts. We hypothesized that the 1960's boundary was jagged to take in attractive firs just outside the intended cutblock. In these selective entries, less desirable

mature trees would remain. Later clearcuts would follow straight boundaries along the edge of the young plantation, ignoring undesirable older residual trees. These residuals offer a wealth of ecological structure next to the plantations minions. Steep slopes and wetter areas also seemed to thwart the machinery's progress. Included in the residual element was a precious patch of old cedar and several ancient bigleaf maple (*Acer macrophyllum*) trees which somehow managed to elude devastation. These rare vestiges of the past would play a key role in directing our restoration treatments on DL63.

While studying the 1998 air photos, we found fairly regular, repeating, linear features throughout a major portion of the younger stand. These anomalies turned out to be windrows, or piles of logs, stumps and soil resulting from the 1979 intensive site preparation (Fig 4).



Figure 4: Windrow

The treatment may have been an attempt to address the significant presence of laminated root rot (*Phellinus weirii*) in the stand; this was regarded as a scourge in industrial plantations. No matter what the motivation for windrowing, the rows have become a primary focal point for our restoration efforts. They present a unique opportunity to restore some of the lost structure and function to the forest floor.

One of the ecologically significant aspects of the windrows was that the physical presence of the piles of wood prevented planting. As a result, a vast array of native herb, shrub and tree species appear as ripples in a sea of ascendant Douglas-fir spires. It was evident from the physical form of many plants in the green alleys that their seasons were numbered. The aggressive growth rate and tight density of the Douglas-firs was literally stretching many shrub species to their phenotypic limits. Some narrow windrows seen from the understory were marked by dense, sombre, linear stands of brittle, lanky-stemmed oceansprays (*Holodiscus discolor*). It was literally curtains for them.

In general, the windrows stood in stark contrast to the majority of the Douglas-fir plantation, where regularly spaced firs and a barren understory was the rule (Fig 5). A question was raised: should we try to move the wood from the windrows back into the stand? After discussing the pros and cons of dismantling the windrows with Herb Hammond, we did indeed decide to redistribute the wood. The risk of disturbing the vegetation was viewed as minimal, in relation to the benefits gained from getting that wood back out onto the forest floor (Fig 6).



Figure 5: *Barren Understory Prior to Restoration*

Herb made it clear to us that moving large pieces of wood out into the stand would save literally hundreds of years of recovery. The resilience and regenerative power of the native vegetation would be comparatively swift. We would also be thinning the stand as part of the restoration treatments, creating more space for native vegetation to rebound.



Figure 6 *After moving CWD*

The principle of conducting our restoration treatments with as minimal a footprint as possible continues to be at the forefront of every decision. An apt mantra is 'Proceed with Love and Care'. How were we going to move tons of wood around the forest efficiently, safely and with love and care?

As in the windrow gaps, the Douglas-fir canopy was rapidly asserting its dominance throughout the stand, excluding

much of the site's native species diversity. A comparison of tree density between the younger and older plantations showed a drop of 500 stems per hectare between the two stands, while the density of Douglas-fir trees alone remained virtually the same. Species diversity had gone from the older stand. It was evident that we had, at the most, 5 years before the canopy would close in the young plantation, shading out all competing vegetation. This prompted a decision to initiate our thinning treatments in the younger plantation, where

we could maintain tree diversity by thinning around remaining native species in the stand. Given a limited budget, where would we start?

We went back to the ecosystem polygon mapping to find patches of residual diversity; these sites became prominent 'features' within the DL63 site. As the study progressed, these polygons could be linked together forming a near cross lot 'corridor of complexity' (Fig 7).



Figure 7: 'Corridor of Complexity'

When considering stand treatments, it struck me that it would be best to begin restoration treatments where we could connect areas of complexity. The “corridor of complexity” would not only span DL63, but also connect the two fragmented mature forest stands bordering the plantation matrix and bridge two watersheds. Whether or not there is any way of proving the validity of the corridor concept is highly debatable, but it feels right on an intuitive level. Rather than a preferred passageway for wildlife, (which it may indeed be) the corridor theory may be more ethereal or aesthetic in nature.

The real, tangible connective value may lie below ground, due to the reduced degree of soil disturbance in these areas. Soil structure, CWD vegetative communities, gaps, indigenous tree species, canopy layers and snags all contribute to a forest’s structural diversity. It is structural diversity that defines functional potential and ecological integrity. Herb Hammond suggests that these complex areas may be ecological anchors, from which we can build our restoration work. Anchors, hubs, cogs and wheels, re-knitting the web strand by strand; it makes intuitive restoration sense.

The application of the ecological anchor concept continues to be another guiding principle to our restoration at a variety of scales. At the coarse scale, patches and fragments of mature forest provide direction when prioritizing our restoration treatments. At the fine scale, individual organisms such as a Pacific Yew (*Taxus brevifolia*), or small patches of native vegetation such as Dull Oregon Grape (*Mahonia nervosa*) are labelled as signi-

ficant ecological anchors when laying out a thinning treatment. These ecosystem elements are favoured over yet another genetically-suspect, non-local, twenty-five year old Douglas-fir. Plantation trees are sacrificed to the restoration Gods. Rather than mourn the loss of life, we rejoice in the recruitment of more significant strands in the forest web, mainly snags and coarse woody debris. In effect, killing plantation trees creates anchors (snags and CWD) and secures fine scale anchors (native vegetation) which together foster greater ecological complexity and integrity. So how do you kill trees with love and care? For starters, everything is being carried out by hand tools and muscle power.

To address the technical questions, we turned to the plantation trees themselves for part of the solution of how to move things. The Conservancy’s volunteer director Ken Millard, a retired theoretical physicist, designed a simple small-scale skyline system for use in moving wood around the forest. The system is based on the specifications outlined by the Workers’ Compensation Board for logging skyline systems. However, ours is small-scale and is centred on the power assist of a hand-operated five-ton chain hoist. The system is designed to allow us to safely, and with relative ease, move pieces of wood up to two tonnes in weight. This is more than adequate for most, but not all, of the pieces found in the windrows. We are able to move pieces of wood distances of up to 20m (60 feet). Seldom are windrows more than 40m apart, so we have been able to gain almost contiguous coverage for material dispersal. Our skyline transportation centres on a 3/4-inch cable strung between two living Douglas-fir plantation trees (Fig. 8).



Figure 8: Ken Millard setting up cable

Unfortunately, the firs chosen as spar trees must be temporarily impaled by four stubby nails, as part of the bracket support system for the cable line. We try to choose trees already marked for culling as spars, so any accidental damage incurred by the spar has no real significance in the long run. The spar trees are guyed back to other trees for support. Consistent spacing of the trees almost always guarantees appropriate spar and guy tree candidates. Snatch blocks, chains, load binders, shackles and straps are all part of the set-up. It takes us about an hour to get ready for a move. Depending on the material in the windrow, we have moved more or less 10 cubic meters of wood from one set-up over a day.

Part of the beauty in the technique is how gentle it is; we can proceed with care. The miracle of mechanical advantage enables us to haul away on the chain hoist, lifting 1000-pound logs and more with

relative ease, much like the Jedi Yoda raising the X-wing fighter out of the swamp in 'The Empire Strikes Back'. We are able to lift logs with vegetation attached, move them to where we want, and place them down, with minimum disturbance to the log and its inhabitants as well as the forest floor. By not having any fossil fuel burning engines running our operation, we are able to stay connected to place while we work. We can hear the ravens striding through the thick air overhead, and take note of the pileated woodpeckers (*Dryocopus pileatus*), winter wrens (*Troglodytes troglodytes*) and chestnut-backed chickadees (*Parus rufescens*) as they try to figure out why we are rearranging the furniture and appliances. We shunt our equipment around the plantation by wheelbarrow, eliminating the need for intrusive roads or skid trails. As a matter of procedure, we prune most of the trees in the areas where we are working for safety and visibility. Pruning is also part of our treatment, thus encouraging the development of mature wood, promoting soil building and reducing fire risk in the stand.

Moving to the cull, we kill trees by girdling, limbing and topping or pulling them over. Yes, we are pulling trees over. Initially, a good part of our thinning treatments were to be traditional falling, creating a stump and a log, not common features in a natural stand of healthy trees. Serendipitously, Ken Millard was inspired by an article describing a forest restoration project in Southern Ontario. There, practitioners were attempting to create microsites in agricultural fields by mechanically digging pits and mounds, simulating tree blow-down events. Ken saw the parallel with our project, and

suggested that we might imitate nature with our thinning by pulling trees over with an adapted configuration of our cable system. By doing this, we would be able to simulate a blow-down event and create the associated microsite variations of pits and mounds. So far, so good. To date we have pulled over 50 trees with relative ease as we move along within our treatment areas. It takes us about an hour at most to set-up to pull up to a dozen trees, depending on the site. Due to the control in the system, we are able to show love and care, and guy desirable trees out of the way of trees coming down, to protect them from damage. Pruning, girdling and topping are all being carried out with hand-powered tools; loppers, gouges and bow saws, all of which foster a connection and maintain a peace.

A third application of the cable system has enabled us to erect snags in the plantation. As previously mentioned, we found few snags of any consequence during our initial survey of the District Lot. The importance of snags to cavity nesters and keystone species such as the pileated woodpecker has been understood for some time (Thomas et al, Handbook No. 553, US Department of Agriculture and Forest Service, 1979.). Rot-resistant Western red cedar (*Thuja plicata*) has remained fairly solid over the past 25 years in the windrows. We are always on the lookout for large intact cedar logs that would make nice snags. To date we have erected 10 such pieces, again using our cable hoist and chains. (Fig.9)



Fig 9. *Lifting a snag.*

We dig holes for the snags 3 to 5 feet deep and yard them up with the chain hoist. We have already seen a pileated woodpecker using one of the snags and have noted evidence of use on several others. These observations are taken as nature giving us the thumbs up.

A vital aspect of successful restoration work is adapting treatments to respond to monitoring results. We continue to develop monitoring techniques as we move along with our treatments. One of our primary techniques thus far is to establish photo-monitoring points at representative sites. Another monitoring tool comes from the plot data from our initial survey of the District Lot. After establishing where our first restoration treatments would be applied, we decided

to intensively map that 4.5 hectare area on the ground by running out a 20x20m grid over the entire site. With this grid in place, we were able to map moderate-scale stand compositional differences, and all of the fine-scale anchors including individual native tree species, stumps and windrows. With this map we will be able to overlay on the sites the history of our treatments and map stand change into the future. We plan to do the same degree of mapping in a control site as a comparative reference. As we constantly note the range and depths to which our monitoring strategies could go, it appears that in conducting this restoration work, we are also setting an ideal stage for a myriad of research opportunities, which we welcome.

And so it has begun. What started as 'let's look at restoring the plantation' has moved three years later to actually implementing treatments. Our minimum goals over the next year include the redistribution of 300 cubic meters of CWD, the erection of 13 snags and the application of our thinning treatments over 7 hectares of plantation. Our work has been used in education programs for school groups, including university students, and continues to attract interest from other restoration practitioners, foresters and members of the public. We have consistently enjoyed strong local support for our efforts. Our frequent walking tours highlighting our progress are well-attended by the local community. Our site will be one of the tour options at the Society for Ecological Restoration's annual conference in Victoria this August.

We must acknowledge the funders of our restoration efforts, especially the federal Eco-Action Program and the Tides Foundation. We also will be building an

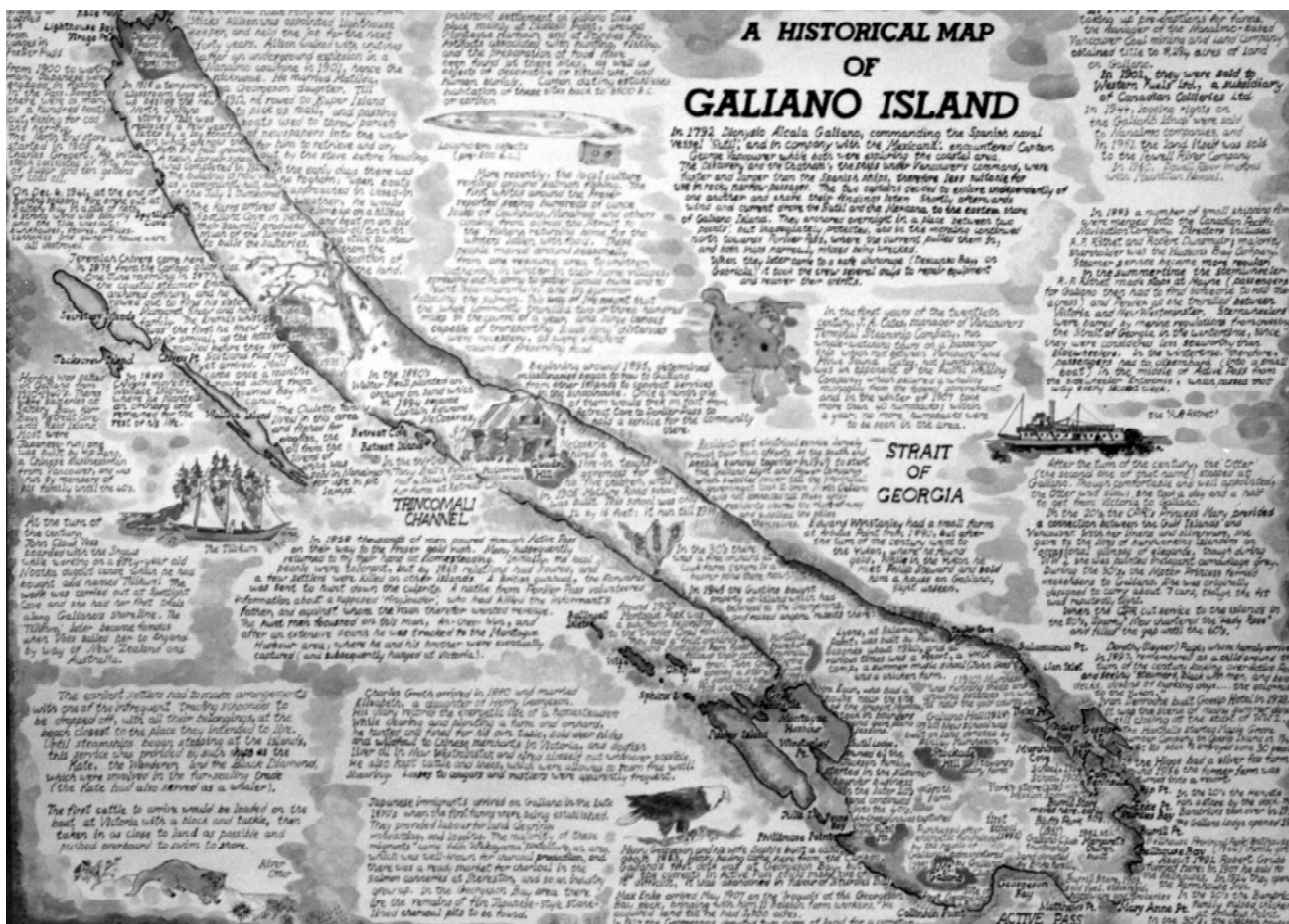
interpretive trail through some of our restoration sites, funded by Mountain Equipment Coop.

The Galiano Conservancy Association is a non-profit organization working for conservation and restoration of the ecology and human community on Galiano Island. For more information contact Odin Scholz at the Galiano Conservancy (250) 539-2424 or e-mail galiano_conservancy@gulfislands.com

Galiano resident Odin Scholz earned his B.Sc. in Environmental Science and Anthropology at the University of Toronto and is nearing completion of his Diploma in Restoration of Natural Systems from the University of Victoria. Odin spent 8 years in BC clearcuts planting trees. Over the past 5 years, he has worked for the Galiano Conservancy Association on a multitude of ecological restoration and related projects. He and his partner Angela Jean-Louis are raising two young sons on the island.



Wes & Malu in Retreat Island Woods: K.Wall photo



Map by Diane Laronde

An Historical Map of Galiano: Part 3: by Diane Laronde: with additional research by Jillian Ridington

Electricity: Galiano was the first Gulf Island to have a power utility. At the South End, in the 30s and 40s, a number of people had individual generators, which were expensive to run and troublesome. A group of residents formed the Galiano Light and Power Company, with the idea that a single system could supply electricity to all the members. On December 8, 1949, power was switched on. Initially, it served three guest lodges and the Garner home; the following week, two more homes and the coffee shop were hooked up. The grid gradually spread

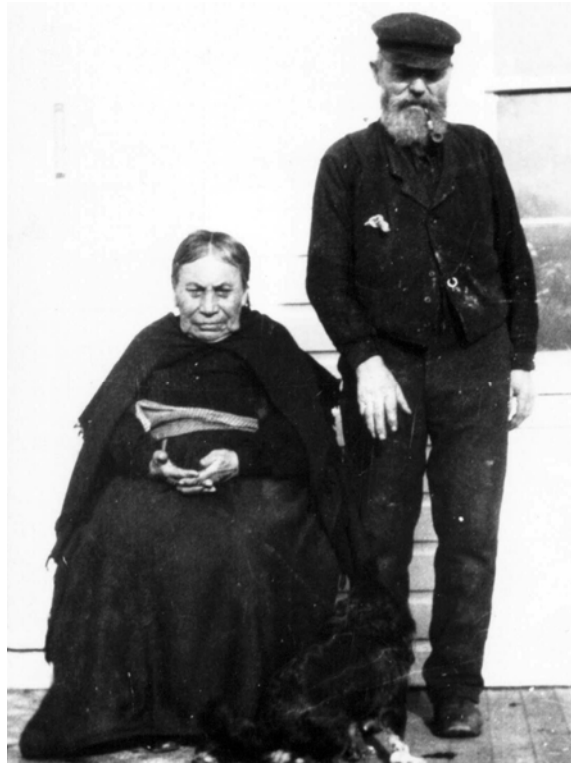
across the South End. The B.C. Power Commission (later B.C. Hydro) took over Galiano Light and Power Company in 1956.

Between the First and Second World Wars, North Galiano was a prosperous community with its own store, school, sawmill, six salmon and herring canneries, several large farms, and a ship repair yard. Numerous fishing boats operated out of the area, and it supported a population of several thousand people during the fishing season. When the last cannery closed down, the population dwindled to perhaps a dozen families, including that of the lighthouse keeper. Locals saw electric power as a necessity that could help rebuild their community. At that time, North Galiano was isolated from South Galiano by

Macmillan-Bloedel's Tree Farm No. 19 - fifteen miles of forest. B.C. Electric did not find it economically feasible to put in a power line. However, there was a rural electrification program, under which the government and the community would each invest a portion of the cost of building a line. North Galiano residents formed a committee, and began raising funds and obtaining easements. After a year, B.C. Electric (which was to become B.C. Hydro in 1962) was still unwilling to begin, because of the scarcity of customers.

Fortunately for the North Enders, January storms wrecked the telephone line to their end of the island; BC Tel was persuaded to come in on the joint project, rather than patch up their old line. This tipped the scales, and people began felling trees and clearing brush. North End residents cleared the land and burned the slash; B.C. Tel drilled the holes; Macmillan Bloedel, as well as a number of private landowners, contributed cedar poles; logging outfits contributed time and equipment to move the poles to where they were needed; and B.C. Hydro put in the power line. On December 23, 1966, the North End was connected to the grid.

The Galiano Cemetery: The area at the end of what is now Georgeson Bay Road has long been a burial site. It reputedly was used for burials by First Nations people prior to European settlement. "Scotty" Georgeson, who pre-empted the land around Georgeson Bay, and his family used it for a private burial ground. In 1927, they donated two acres for the use of islanders in general, and the Anglican Synod accepted title.



Scottie and Sophie Georgeson: Dave Morgan Collection

Fire Prevention: In 1951, when the Galiano Lodge caught fire and was burnt to the ground, there was no fire department. After the fire, a committee was formed and some equipment purchased, but it was clear that something more was needed. In 1963, a pumper truck was purchased from the Langford Fire Department. It was parked at the old Galiano Light and Power building on Cain Drive.



Galiano Lodge fire, 1951: Elizabeth Steward collection

Health Care: In the 1930s and 40s, the CPR boats going to Vancouver or Victoria would stop in Active Pass, off Georgina Point, and pick up seriously ill or injured patients who had been brought to the spot in small boats. In the 1950s, there was no resident doctor – a visiting doctor would come every other week. Betty (Scoones) Steward acted as unofficial visiting nurse for eight years; injured animals sometimes formed part of her clientele. Vic Zala of the Corner Store donated his old panel truck to be used as an ambulance. Lady Minto hospital on Saltspring Island opened in 1958, bringing emergency health care closer to Galiano. It wasn't until 1990 that our own Galiano Health Centre was built.

Hotels, Cottages and B&Bs: As the population of Vancouver grew, the islands became a popular holiday destination, and islanders built cottages on their land or took in boarders to make extra income. In 1924, the Bellhouse Farmhouse was opened as a summer resort, in conjunction with a working farm. In 1928, the house burnt down. It was rebuilt and continued to operate into the 1950s. In 1964, Bellhouse Point was made into a provincial park, a gift from the Bellhouse family.

The first Galiano Lodge was originally a private house, built in 1920. From 1938 through 1945, it was run by the Scoones family as a resort; they called it Greenways. When they bought it, the house already had electricity, provided by a generator. In the 1920s, the Bambrick family had a chicken farm on Arbutus Point. In the thirties, the chicken houses were converted into summer cottages for boarding tourists. Gossip Hotel was built in 1929 and closed down at the start of World War II; it was the site of many summer dances. Mrs. Blanche Egan had a house at Montague, about



Greenways, 1938 Elizabeth Steward Collection

where the Marina is now; she supported herself and her child in the 1920s and 30s by taking in boarders and giving piano lessons. The Jackson family, friends of the Egans, bought land a little further along Montague Harbour, and built Sutil Lodge there in 1928. The Jacksons welcomed guests there until the 1940s. In the late 1960s, Stanley Jackson began renting out cottages on the property; he continued until his death in 1985. Tom and Ann Hennessy then bought the lodge, and ran it as a guesthouse until a few years ago. On the Cain peninsula, the former Higgs fox farm was run as a resort from about 1936 to 1957.



Tennis at Sutil Lodge, 1930s: Hennessy Collection

At the end of World War II, Fred and Margaret Robson took over the Galiano Lodge and expanded it. After it burned down in 1951, they rebuilt it and ran it until 1962; since then it has had a variety of owners. In the 50s, Jean Lockwood, a Galiano realtor, built cottages called "Ups and Downs" at the site of the present Driftwood Village.



Tilikum at anchor: Dave Morgan Collection

The Tilikum: Around 1900, John Claus Voss was boarding with the Shaws while working on a 50-year-old Nootka dugout canoe. He had bought the boat and named it Tilikum. John Shaw Jr. helped Voss with the work. They added a cabin, decking, a keel, three masts and bulkheads, among other things. The work was carried out at Spotlight Cove, and supervised by boat-builder Harry Vollmers; Vollmer's wife sewed the sails. The Tilikum had her first trials along the Galiano shoreline: later, she circumnavigated the world.

General Social Climate: The initial development of Galiano was slower than that on Mayne Island across Active Pass, due to the lack of arable land, the steep rocky cliffs, and the dense forest cover on Galiano. Music was an important diversion for Galiano settlers. Joe and Fred Burrill, between them, played piano, banjo, guitar and violin. The Georgesons joined in with fiddles and accordion. Everybody sang. Subsequent settlers, many from the British landed classes, brought their lifestyles with them: tennis and grass hockey matches; grand pianos and libraries; afternoon tea in the garden. Beth Hill, author of *Homesteads and Snug Harbours*, quoted Dorothy Page,

"The Galiano settlers enjoyed a 'genteel' kind of pioneering, and didn't worry about missing a day's work to attend a social function." Mrs. Henry Twiss described the Galiano of those early years as "Very British and very conservative."



Paul Scoones' music room: E. Steward Collection

In the 1930s and '40s, Paul Scoones conducted nightly concerts, playing classical music from the records in his vast collection. The donations taken at the concerts helped the Galiano Club purchase the Bluffs, and a CD of some of Paul Scoones' selections was made for the 75th anniversary of the Galiano Club in 1999.

Galiano Schools: In 1892, Galiano's first school opened near the junction of George-son Bay Road and Bluff Road. Eight years later, a second school was opened; it overlooked Whaler Bay.

In 1905, a school was built up at McClure Road, on land donated by the Aitkin family. This meant that children from that area no longer had to walk five miles each way to the valley school. This school appears in School District 64 records as the "Retreat Cove School". Its predecessor was a lean-to built onto the McCoskrie House; Captain McCoskrie had hired a live-in governess who instructed his own five children and others living nearby. McClure Road School itself was only 12 x 16 feet. Its enrolment

fluctuated, and it closed for good in 1939. A decade later, when a lot of logging was taking place and there were many families in the area, another school was opened on land now owned by the Bramalls at Retreat Cove. Logging activity, and population, soon diminished, and the school closed in 1953. Meanwhile, Finlay Alexander donated land for a new school, on the site of today's Galiano Trading Company; it opened in 1920 and operated until today's Galiano Elementary School opened in 1954.

North Galiano's first school was a temporary classroom, set up beside the new North Galiano store in 1915. This was replaced a few years later by a log structure on the site of the North Galiano Hall. A new, larger school on the same site was completed in 1927; the land had been donated by the Deacon family. It operated until 1953, when a school bus began transporting children to the South End. The building, with renovations and improvements, is now the North End Hall. Pictures of long-ago students can still be seen on the North Galiano Hall's walls.

Education beyond the elementary grades has always been problematic on Galiano. Children have completed their education beyond Grade Eight by a number of means; taking a water taxi to Mayne for Middle School and to Salt Spring for the higher grades; staying with friends or relatives in communities where higher grades were available; home-schooling; private residential schools. Computers now make matters simpler for some Galiano youth; Galiano Community School now has a program that supports local young people through the high school grades, with distance learning.

Galiano Parks: Most of Galiano's parks have been acquired through a combination of community effort and generous donations. Before World War II, the Galiano Club had raised money and negotiated with Max Enke to purchase part of the Bluffs land. The need for an expensive survey delayed the purchase. After the war, the Enkes donated the balance of the land, and the Galiano Club assumed the trusteeship of the Bluffs in 1951. Club members continue to be its stewards.

In 1964, the Bellhouse family donated land near the ferry terminal for the Provincial Park that bears their name. Mt. Galiano was purchased in 1991, after an energetic fundraising campaign by the people of Galiano. MacMillan-Bloedel lowered the price to meet the amount raised, and the Galiano Club took over stewardship of the mountain. Another campaign in the early 1990s led to the acquisition of Bodega Ridge, now a Provincial Park.



*Floats & launch at Bellhouse Bay, 1930s:*Dave Morgan Collection

Prehistory: Archaeological evidence indicates that there were human settlements at Montague at least three thousand years ago. (For more information, see the following article.) Population records indicate that 7700 people, the majority probably First Nations people, lived in the Gulf Islands in 1780; by 1835, the population had been reduced to 5400. First Nations people moved seasonally, utilizing seasonal resources as they were available. Clam

digging and hunting took place in the fall and winter; camas bulbs and other vegetable foods were gathered in the spring, when sea mammals were also hunted. Summers were spent salmon fishing. Over the course of the year, groups travelled several hundred miles in large canoes.

Diane Laronde is a Galiano artist and historian

Do you have other information on Galiano history that Archipelago's readers would find of interest? Have we got something wrong in these articles? Let us know; send a letter to the editor, Archipelago, c/o The Galiano Conservancy, Sturdies Bay Road, RR1, Galiano BC V0N 1P0



Wilson's Bowl: K. Wall photo

A Look at Archaeological Research in the Gulf Islands

Colin Grier, Department of Anthropology and Sociology, University of British Columbia

When I visit Montague Harbour Park with colleagues or friends, we walk from the park boat launch to Gray Point on the peninsula. I usually start out by showing them the wonderful shell beach. Then I ask them if they know what all that jumbled black dirt and shell is at the back of the beach. Most are astounded to learn that this inconspicuous mound of soil is an

archaeological site representing over 3000 years of history. Such sites are ubiquitous in the Gulf Islands. Almost every sheltered patch of coastline has some indication that it was visited and often repeatedly inhabited by First Nations people. The notion of "European exploration" in the 18th and 19th centuries implies a sense of discovering an empty landscape. But the Gulf Islands were anything but empty prior to Europeans arriving.

Those inconspicuous mounds and layers of dirt form the basic data through which archaeologists piece together the long history of human settlement in the Gulf Islands. It is sometimes quite a conceptual leap to translate fragments of fire-cracked rock, stone tool sharpening debris, and burned shell into past ways of life. However, archaeologists see the Gulf Islands in a different way than most people do; we view it as an ancient cultural landscape overflowing with information that attests to the ingenuity of societies that have flourished here for the last 5000 years.

I started research in the Gulf Islands in 1996; in the years since, my work has focused on three questions. First, when were the Gulf Islands initially settled? Second, how did people here make a living from the natural resources that the Gulf Islands offer? Third, how connected were Gulf Islands peoples with others outside their local territory? What follows is essentially a summary of the strides I have made toward answering these questions. I first look back on the history of archaeological research in the area, then focus on my own work, and conclude with a look to the future.

An important point to recognize at the outset is that many things can hamper the viability of archaeological research in the

future. Of these, none is as critical as preservation of the archaeological record itself. The archaeological record is a fragile non-renewable resource, and, as I have witnessed first hand on more occasions than I like to recount, is under extreme pressure from destructive agents, both natural and human. I will not delve into the politics of heritage conservation, but simply wish to impart the message that the problem is quite severe.



Gulf Island archaeological sites: map by C. Grier

Archaeological Research in the Gulf Islands: Looking Back. Archaeological research on the Gulf Islands goes back to the earliest days of scientifically practiced archaeology in BC. Charles Borden, the first archaeologist at the University of British Columbia (UBC) in Vancouver, began work in many areas of the south coast, including the Gulf Islands, in the 1950s. Borden provided the framework of culture history on which subsequent research is based.

The 1960s saw the first systematic research surveys that attempted to catalogue the plethora of sites located in Provincial Parks and related lands. As a result, Don Abbot and John Sendey surveyed significant tracts of the Gulf Islands coastline, essentially putting dots on maps as to where archaeological sites were located and making some very basic observations of their size and significance. They were followed in the

1970s by archaeologists Stephen Cassidy and Michael Cranny, who conducted a much broader survey commissioned by the Archaeological Sites Advisory Board.



Dig at village at Dionisio point: Colin Grier photo

These surveys built up the inventory of sites with which many archaeologists still work today. These surveyors did meticulous work; if you encounter shell midden in the Gulf Islands, odds are that an archaeologist has encountered, recorded, and mapped that location (though there are exceptions, and new sites are always being discovered). But such surveys generated only nominal information on sites; often, only their location and boundaries were given. Such information is critical, but it doesn't help us to really understand what most of these places represent in terms of their age, duration of habitation, and their role and importance in ancient economic, social and political systems.

There certainly have been substantial and intensive excavations at Gulf Islands sites: Montague Harbour on Galiano, False Narrows on Gabriola, Pender Canal on North Pender, and Helen Point on Mayne Island, to name a few. These projects have had a substantial impact on how we understand the prehistory of the Gulf Islands, the whole south coast of BC, the Northwest Coast Cultural Area in general, and even the peopling of the New World near the end of the last ice age.

A critical observation arising from these excavations is that there are no verified Gulf Island sites that pre-date around 5000 years ago. Were the Gulf Islands settled prior to that and we simply have not found the sites? Perhaps. Some researchers have looked underwater, since sea levels have changed vastly over the last 12 000 years. Norm Easton's project at Montague Harbour in the early 1990s sought archaeological materials that might date earlier than 5000 years, with only limited results. While pre-5000 year old sites remain elusive, it is important to recognize that the Gulf Island archaeological record does chronicle the last five thousand years, a period of time during which fundamental changes took place in the native societies. The development of an intensive salmon fishery, the construction of large long-houses, and the development of social classes all have come about within the last 5000 years. What fuelled these significant changes?

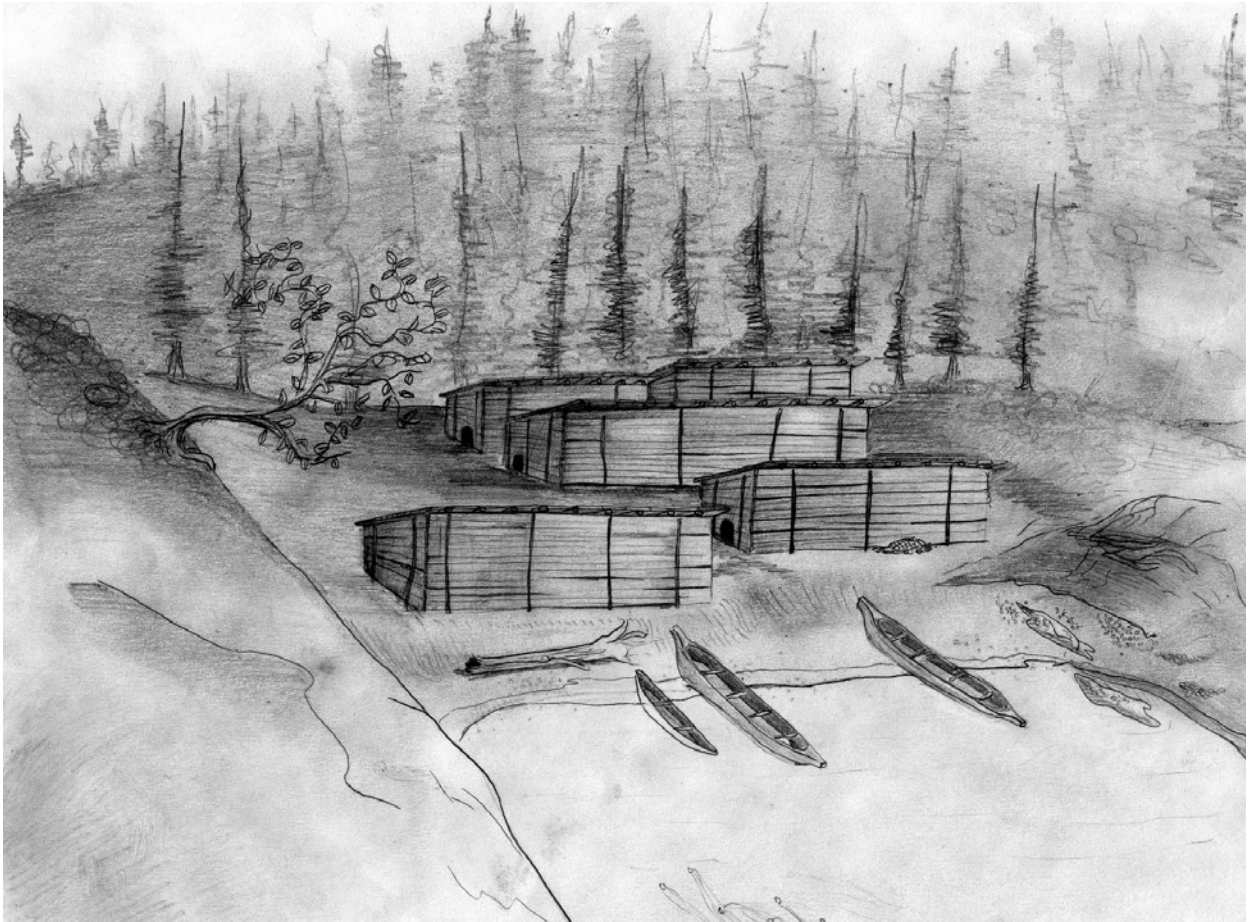
The Recent Past: Gulf Islands Archaeology in the Last Decade. My research attempts to explain such profound changes. In doing so, I have focused on the remains of prehistoric longhouses, some better preserved than others, in an attempt to acquire data relevant to answering the critical questions posed at the beginning of this article. Despite their central role in prehistoric Salish life, few houses have actually been excavated in the Gulf Islands, though sadly one can say the same for most areas of the BC Coast.

Most of the archaeological fieldwork I have carried out has been within the traditional territory of the Coast Salish Hul'qumi'num peoples, which today includes the Cowichan, Lake Cowichan,

Lyackson, Halalt, Chemainus, and Penelakut First Nations. This research, primarily with the Lyackson and Penelakut First Nations, has been wholly and productively collaborative. I can't thank enough the Chiefs, Councillors, elders, and many band members who have supported and contributed to the projects. It is only through their interest and the support of First Nations People that the full potential and significance of archaeological research can be realized.

Typically, I have acted as principal investigator and research director (not to mention occasional boat mechanic, meal cook, field surgeon, etc.) for a number of projects, but also have worked closely on most projects with Eric McLay (Masters graduate from UBC, now working with the Hul'qumi'num Treaty Group) and Neil Miller (Penelakut Tribe). Many others have assisted, too countless to mention, but foremost among our dependable field assistants have been Stuart Thomas (Lyackson Band) and Robert Laing (Penelakut).

Our main area of research has been at the site known as Dionisio Point, located within the marine access Provincial Park bearing the same name on the north end of Galiano Island. Dionisio Point was one of the sites identified in early surveys as a significant village location. It was tested by Donald Mitchell of the University of Victoria in 1964, and some initial indications of its age and artifact content were noted. However, research on the site remained essentially dormant until my work began there in 1997.



Drawing of the village at Dionisio: Neil Miller

The Dionisio Point site is a well-preserved village containing the remains of 5 large houses, one of which is significantly larger than the rest. The 4 smaller houses measure 10x20 metres, while the larger is an impressive 10x40 m. An extensive array of radiocarbon dates places the village site occupation at between 1500 and 1800 years ago. I have completed excavation of one of the smaller houses. If it is typical, then each of the smaller houses contained 5 or 6 families, each living around a hearth. The larger house may have held double that number.

I am interested in the organization of domestic space in these large houses, and the nature of the domestic economy. What was being produced and consumed by individual families within the house, as

measured by the kinds of artifacts and food remains present? The kinds of resources produced and consumed by each family can tell us how they were participating in the household. Were individual families acquiring and consuming their own resources? Did people specialize in particular tasks? Or did the household act as a more coherent entity and pool resources that everyone shared equally? These questions really get at the underlying economic issue of why these large households existed, and why in fact they came into being.

At Dionisio Point, it seems that there were very marked differences among families within houses in terms of productive pursuits. Some families appeared to be more engaged in hunting deer, while some were more involved in

fishing. Others seem to have had most of the wealth and status goods. However, the remains of some food resources, such as herring and dogfish, and to a certain extent salmon, are found everywhere within the house. Perhaps then the major impetus for large houses to exist was that they provided a large pool of labour that could have been marshalled for specific tasks. The household may also have been essentially a food-sharing network.

Much of the research that my team has done comes under the heading “household archaeology”. A premise of current thinking in household archaeology is that the investigation of households provides a window into much broader aspects of their society. Though households may appear as self-contained economic units, they, much like the modern suburban family, existed in a complex and extensive economy. Today, our television set may be from China, our olive oil from Italy, our furniture from Sweden, and so on. Similarly, the excavated house at Dionisio Point and others in the Gulf Islands (such as False Narrows on Gabriola Island) contain items that clearly indicate access to goods from distant regions. Nephrite from the Fraser Canyon, dentalia shell from the west coast of Vancouver Island, and obsidian from as far south as Oregon all attest to the regional scale of economic networks that existed millennia ago.

In order to fully understand the household economy, we must take a regional view. In conjunction with a number of other archaeologists, I have been looking more broadly at the region to determine exactly how and from where households obtained resources, both food and “hard” goods, in order to piece

together these prehistoric economic systems.

Valdes Island is one of the focal points of this research. Eric McLay surveyed the entire island in 1996 as part of his Masters thesis. In this work, he documented the locations from which resources, food and otherwise, were extracted from the environment. In 2000, Eric teamed up with Neil Miller and myself to revisit these sites. We collected radiocarbon samples for dating to provide an indication of when specific resources were incorporated into prehistoric economies. This research, coupled with more intensive work at village sites, provides an appropriately broad approach to reconstructing the way in which people have made a living and how that has changed over time.

Our radiocarbon dates from the 2000 Valdes Island survey mirrored those elsewhere. The earliest dates seem to be no more than about 5000 years old. One interesting point was that those locations that were settled earliest – as early as 5000 BP – typically became the location of large, complex villages. These locations on the landscape represent long-term focal nodes of settlement and resource acquisition. Shingle Point, a major spit on the southwest side of Valdes Island, produced a date of over 4600 years ago, which indicates one of the earliest Gulf Islands occupations. Shingle Point remained a settlement until the 1970s, and thus supports an extended and continuous history of occupation by the same people that few other settlements anywhere in the world can boast.

I explored Shingle Point further in 2003, with a number of students from UBC’s annual archaeological field school. The data are still being analyzed (counting

bucket loads of fragmented shell takes a lot of time), but when completed should form a nice baseline for charting how resource use has changed over the last 5000 years of prehistory.

Archaeological Research in the Gulf Islands: Looking Ahead: We clearly know (or are at least coming to know) a fair bit about some basic aspects of Gulf Islands prehistory, including how people made a living, when the Islands were settled, and that they were not isolated people but quite connected (at least economically) to distant areas of BC. But in most respects we are still in the data accumulation mode. There always seem to be questions that we don't quite have enough data to answer. These questions are a great impetus for research. The need to find a better answer -- or ask a better question -- provides not only the rationale to obtain research funding, but also the enthusiasm to survey through 3 m tall patches of thick salal, or to dig another shovel test at the end of the day when one's hands are numb and blistered.

As always, we need more research. But where is future research headed? What, in fact, does the future hold for the past? The reality is that the practice of archaeology is changing, and has already changed. Most archaeological work these days is of the salvage variety, typically carried out by private consultants in a last ditch effort to rescue at least some data in advance of development and in response to natural erosional forces. Thus, data are accumulating not through systematic collection in order to answer focused research questions, but instead from a piecemeal patchwork of triage efforts.

What does this mean for the archaeological record? Much of its

destruction comes not through an intentional effort on the part of anyone to destroy vast tracts of the record of the past. We do have legislation to protect archaeo-logical sites, and while this does convey the intent to preserve the record, little bits keep slipping away. We are losing the data we need to reconstruct the past, just as we are learning to ask the important questions. What is the solution? Perhaps it is as simple as conveying the significance that the archaeological record has for understanding how societies have changed and thus can change for the better in the future. It does, however, clearly start with an appreciation of the value of those inconspicuous patches of shell and black dirt.

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THE GALIANO MUSEUM: The Birth and Early Childhood of an Island Institution: A Conversation Between Alistair Ross and Paul LeBlond

The Galiano Museum Society is attempting to preserve items of Galiano history that will be of interest to Galiano residents and visitors. Although relatively new, the Museum is playing an important role in our community. To give *Archipelago* readers an idea of the Museum's evolution and its future, Paul LeBlond, current president of the Galiano Museum Society, interviewed Alistair Ross, founding president of the Society.

Paul L. Alistair, you have long been a keen member of the B.C. Historical Federation, attending many of their annual

congresses, and have developed over the years a deep knowledge of Galiano local history. In May 1997, jointly with Emily Switzer, Bill Shead, Andrew Loveridge and Florence Dodwell, you filed for registration of the Galiano Museum Society. Why did you think Galiano Island needed a museum at that time?

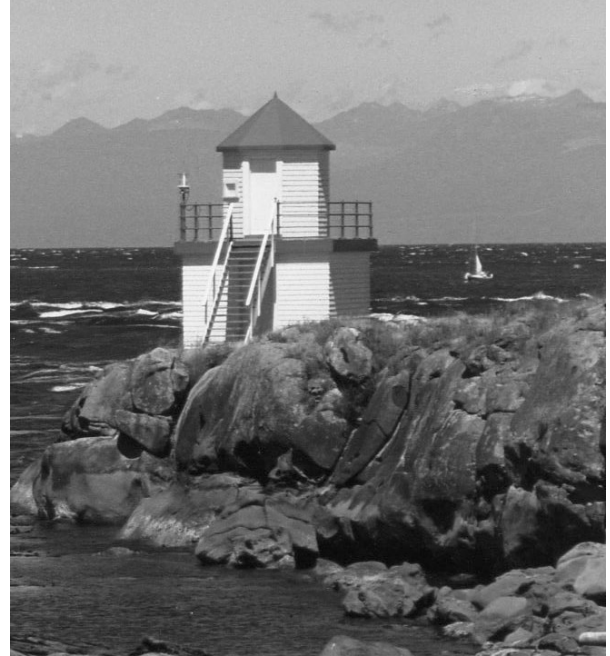
Alistair R. I think the time was ripe for one. With the re-organization of the North Galiano Community Association in 1981 came the need to draw the people of the community together. A common purpose - the restoration of the community hall and the establishment of a fire department - suggested an event that all could participate in. A celebration on 'Canada Day' was a time when we thought we could celebrate our Canadian identity and our beautiful island as well.

Old-timers were pleased to loan us articles from the past and photos of significance. With their cooperation, a small one-day show was organized in the hall. The word soon got around on the island that that fellow, Ross, was collecting old photos and memorabilia. With that, the flood began. By 1996, four albums were bursting with photos, their bulk filling the shelves of our hall closet.

P.L. What was your first move to get the Museum going?

A.R. During the 1990's the Federal Government was automating our coastal light stations. Our Porlier Pass station was threatened. Early in 1996 the wreckers arrived. Hearing this, Peter Hansche and I paid a visit to the site and tried to persuade the workers that our 92 year-old light tower was heritage, and should at all costs be saved. We were successful only in that the wreckers promised to save what

they could for us so that we could rebuild it elsewhere. What did we plan to do with it, they asked. Our answer was straightforward enough: "We will feature it in our Galiano Museum". "You've got a museum?" they asked. "No, but we will have one."



Race Point Light: A. Ross photo

P.L. Over the past few years, I understand that the Galiano Museum has become a favourite island tourist destination. What do visitors find most interesting in the Museum?

A.R. They relate to things they used to use around the house, utensils long superseded by newer labour-saving devices. Our visitors like our photo-file-unit and the information it contains about island people and places. The youngsters are delighted with our old bellows fog-horn and the sound it makes. It is fortunate that we have no close neighbours!

P.L. What did you originally see as a focus for the Museum?

A.R. The original focus was to be only on things that were used or made by Galiano people. It was much easier to find things used by our pioneers than those made by them, so our exhibits are frequently of a more general nature. Special temporary exhibits have been popular with our visitors - the old wedding photos exhibit, the showing of ladies' handiwork, the royal memorabilia collection (to celebrate Queen Elizabeth's fifty years on the throne) and the more recent Pacific Coast Militia Rangers (P.C.M.R.) exhibit.

P.L. Over the past four years the Museum has claimed a presence in the small cottage on Porlier Pass Rd. adjacent to our constable's abode. However, that building is no longer available and the Museum's collections have now invaded your garage as well as sundry sheds and basements. We plan to open a mini-museum in Di's Cottage this summer, at the Lions' Park, featuring "The Artifact of the Week", every week or so. Just where does Di's Cottage come from?

A.R. Aunt Di's Cottage was built about 1923 as a beachfront sleeping quarters for Paul and Alec Scoones' sister (a summer visitor from her home in England). The cottage was located at what is now known as Morning Beach, where there is lots of sand and relatively warm water. It was known as Scoones' Beach in those days. As remembered by family members, Aunt Di was petite, like to read and was 'never at a loss for words'.

When Fred and Margaret Robson bought the Galiano Lodge in 1947, Fred got permission to move Di's cottage from its east-side beach and, putting it on skids, floated it through Gossip Channel to Sturdies Bay. There, it was beached, positioned on land and used for many years as sleeping quarters for the Lodge's



Di's Cottage: P. LeBlond photo

summer help. That phase of its usefulness over, it became a tool shed in the Robson's garden. Later it was relocated to the Lions Park Centre, where it continued to serve as a storage "shed".

In 1999, much deteriorated by that time, the little building was suggested as a centrepiece for the Lions' annual Halloween bonfire. Mr. Robson would not hear of it. Coming to its rescue, he saved it from the bonfire and suggested to the officers of the Lions that they offer it to the Museum Society, if they would accept it. We did! All things going as planned, it will be moved once again, to a permanent location this time, on our museum property on Georgeson Bay Road.

P.L. The Museum is now deeply engaged in the process of establishing a permanent museum on the island on a parcel of land donated to us by Mary-Jean and Gerry Elliott. We have secured conditional approval from the Agricultural Land Reserve to use the property for non-agricultural purposes, and have since submitted to the Islands Trust a request for rezoning and subdivision. In a few years, with the help and support of all our friends, we will have a Galiano Museum we can all be proud of. What is your vision of the future role of that Museum in our community?

A.R. I see the Museum as a place for islanders and visitors to connect with the past. An understanding of what went before always helps to plan for the future. Hopefully the Museum will have proper storage for artifacts not currently on display, a room for the preparation of exhibits and, of course, a room for files and office-related activities. These are 'hidden' but are very necessary for a smooth functioning operation. The public areas will, we hope, contain a large room for exhibits (and possibly our reconstructed lighthouse), a smaller room for meetings and lectures, and a shop where suitable Galiano-produced articles can be purchased. A small library of books of historical significance is planned and, if possible, an area where tea and coffee can be served in pleasant surroundings to our visitors.

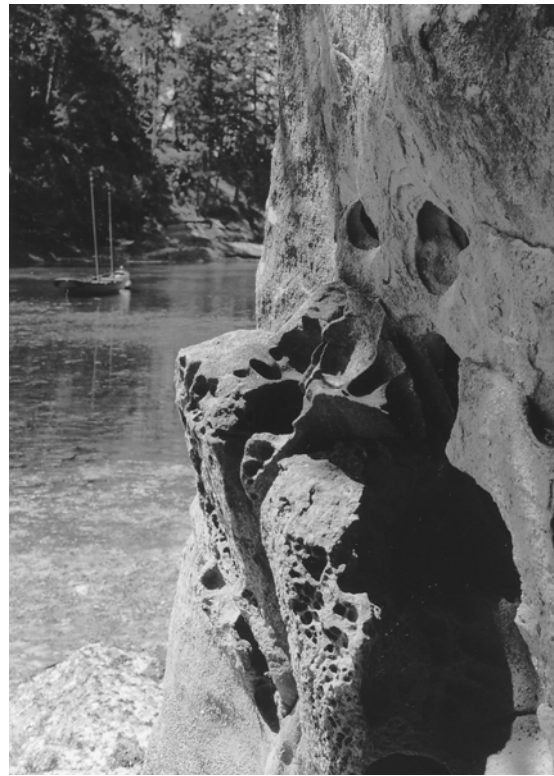
All this sounds like a "tall order" and modifications may be necessary, but why not think big - that's the Galiano way!

P.L. Thank you, Alistair. We have received a lot of support and encouragement for the new museum and I am sure we will stand on its door-step some day and thank you again for your vision and leadership.

Ann Eriksson's Decomposing

Maggie: Winnipeg, Turnstone Press; 2004
A Review Essay: Jillian Ridington

For me, reading Ann Eriksson's novel *Decomposing Maggie* was like sitting down for a long talk with a twin from whom I'd been separated at birth. Parts of the story are familiar; they replicate my own experience living on Retreat Island. Other parts tell of a totally different experience, a parallel universe. Eriksson's protagonist Maggie comes to the island as



Retreat Island from Galiano shore: K.Wall photo

a young woman, as Eriksson herself did. Maggie stays through her years as a young mother, and leaves – she thinks temporarily – when her children need higher education than Galiano can provide. Her husband's illness and subsequent death delay her return; she comes back to her beloved small island to come to terms with grief and loss. Robin and I arrived as 'early retirees', well into middle-age, our child-rearing behind us. We, too, were in mourning, for we had lost three parents between us the previous year. Losing aged parents is sad, but not as devastating as Maggie's loss of a spouse in the prime of life. All such losses lead people to examine their lives and their priorities. Like Maggie, we moved here hoping that the island would be home for the rest of our lives. She – or Eriksson - puts it beautifully:

*I have found the place where I wish to grow old.
 This island of rocks and trees has captured me. I
 am cradled by the sea on all sides, wrapped in a*

symphony of wind and lapping water, the melody composed by an ethereal musical genius. In all directions, my eyes are refreshed by the light, and the uncountable shades of green. The air feeds me with a million smells: the tender scent of wild-flowers, the sharp tang of salt on the sea breeze, the heavy aroma of rotting humus and warm foliage. (p.47)

Maggie didn't manage to live there for the rest of her life: nor did Ann. Whether we will depends on many things, most of all on our continuing good health. I find the hill steeper now that I am over 65, and the short distance across the cove can grow large on a grim day. Retreat Island has more conveniences today than it did in Maggie's early years, but keeping all the systems maintained is still a challenge, and no device can stop the rain running down your neck when you lug the recycling down the dock on a bad day. Our experience of living isolated by a body of water – even one so narrow and shallow that it can be walked across at a very low tide – resonates with Maggie's. Fire that could consume our home before the fire department could get across the cove is a constant worry – as it must have been for Eriksson, for it plays a large role in Maggie's life. Isolation is a two-edged sword; like Maggie, and Ann, we know what it is to have alligator lizards, minks, eagles and other non-human creatures as the only neighbours you can visit without a boat. At times, they seem more than enough; at other times, you wish it were easier to visit a human friend.

Ann's descriptions of the island ecosystem are informed by her work as a biologist, as well as by her life here, and she writes about it lyrically. We have had to learn to identify flora and fauna by listening to more expert visitors and consulting manuals. But we have felt

what Ann/Maggie describes so eloquently, that Retreat Island is, "A world apart, a parallel existence. A place where possibilities emerged from impossibilities. . ." (p.191), We too have seen the majestic mating ceremony of Retreat's resident eagles:

Eagles mate for life. One day in late winter, when she and her children were beachcombing after a storm, she had watched them. Two mature eagles, their white heads stark against the thin blue of the sky, their wings out-stretched, riding the warm thermal currents of the rare sun of that winter day. Soaring, circling around one another, like a ballet on air. Without warning, they came together, violently, talons on talons, twirling, locked together, spiralling, falling, hurling towards the earth. The instant before impact with the flat, glassy surface of the sea, they separated and climbed to soar, independent once again. (p.190)

Maggie's husband Peter had dreamed of the island as a nature reserve, and felt guilt at having built their home on it. Peter is a fictional character, but fictional or not, Peter's dream has, at least in part, become reality. Half the island is now a nature conservation area, owned by the Galiano Conservancy Association. Still, Retreat Island is very real, and the house also is real. We are thankful for its presence. We awaken every morning to watch the wind in the Douglas fir that serves as our bed-room curtain. Beyond that, we see a vision of sea and islands; the first sound we hear is the trill of eagles. Garry oaks guard our home, and Douglas firs define its walls. Retreat Island is not paradise -- that doesn't exist, not on this planet. Yet it is a world where the horrors of Iraq or Afghanistan can seem muted by the murmur of the surf sifting through the clamshell beach, and peace can exist, if only in our hearts.