

The
West Coast Trail
Rainforest



A Proposal for Completion of the
West Coast Trail Unit
of
**Pacific Rim National
Park Reserve**



THE WEST COAST TRAIL RAINFOREST

A Proposal for Completion of the WEST COAST TRAIL UNIT of PACIFIC RIM NATIONAL PARK RESERVE



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Cover photo: View inland over the West Coast Trail showing the ancient rainforest of
Walbran and Logan valleys.

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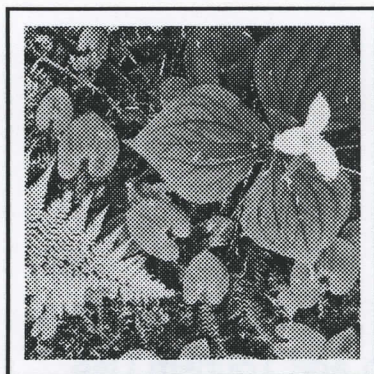
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On Monday, June 17, 1991, the Parliament of Canada unanimously passed the following motion (M-330):

"That, in the opinion of this House, the government should consider the advisability of preserving and protecting in its natural state at least 12 percent of Canada by working co-operatively with the provincial and territorial governments and assisting them to complete the protected area networks by the year 2000."

EXECUTIVE SUMMARY

The current boundaries of the West Coast Trail unit of Pacific Rim National Park Reserve and Carmanah Pacific Provincial Park enclose areas that are too small for maintaining fully functioning wild ecosystems. Clearcut logging is rapidly encroaching upon the boundaries of the West Trail unit of Pacific Rim National Park Reserve, in places leaving a narrow protected strip only 500 metres in width.

The situation is urgent. If logging is allowed to continue to the edge of the current park boundary along its whole length, the West Coast Trail's wilderness recreational value and the park's ability to function as a complete biological unit will be lost.

Western Canada Wilderness Committee proposes an expansion of the West Coast Trail unit to include the adjacent valleys and lowlands draining into the currently protected park area. Implementation of this proposal would make protected areas total 6.5 percent of the southern half of Vancouver Island and vastly improve Pacific Rim National Park Reserve's ecological viability and recreational carrying capacity. The area has the potential to be as popular as nearby Olympic National Park in Washington State.

Inevitable job losses resulting from the withdrawal of forest lands from the industrial forest land base could be compensated for by the establishment of an economic and tourism development plans that would include expansion of silvicultural activities, adoption of environmentally sensitive and employment intensive logging methods outside the park that ensure long term ecosystem productivity, and the construction of a network trail system with expanded tourism infrastructure development.

Lack of other options for wilderness preservation in this region make the adoption of the West Coast Rainforest proposal imperative. A new spirit of cooperation between the three levels of government -- Nuuchahnulth, provincial and federal will facilitate this.

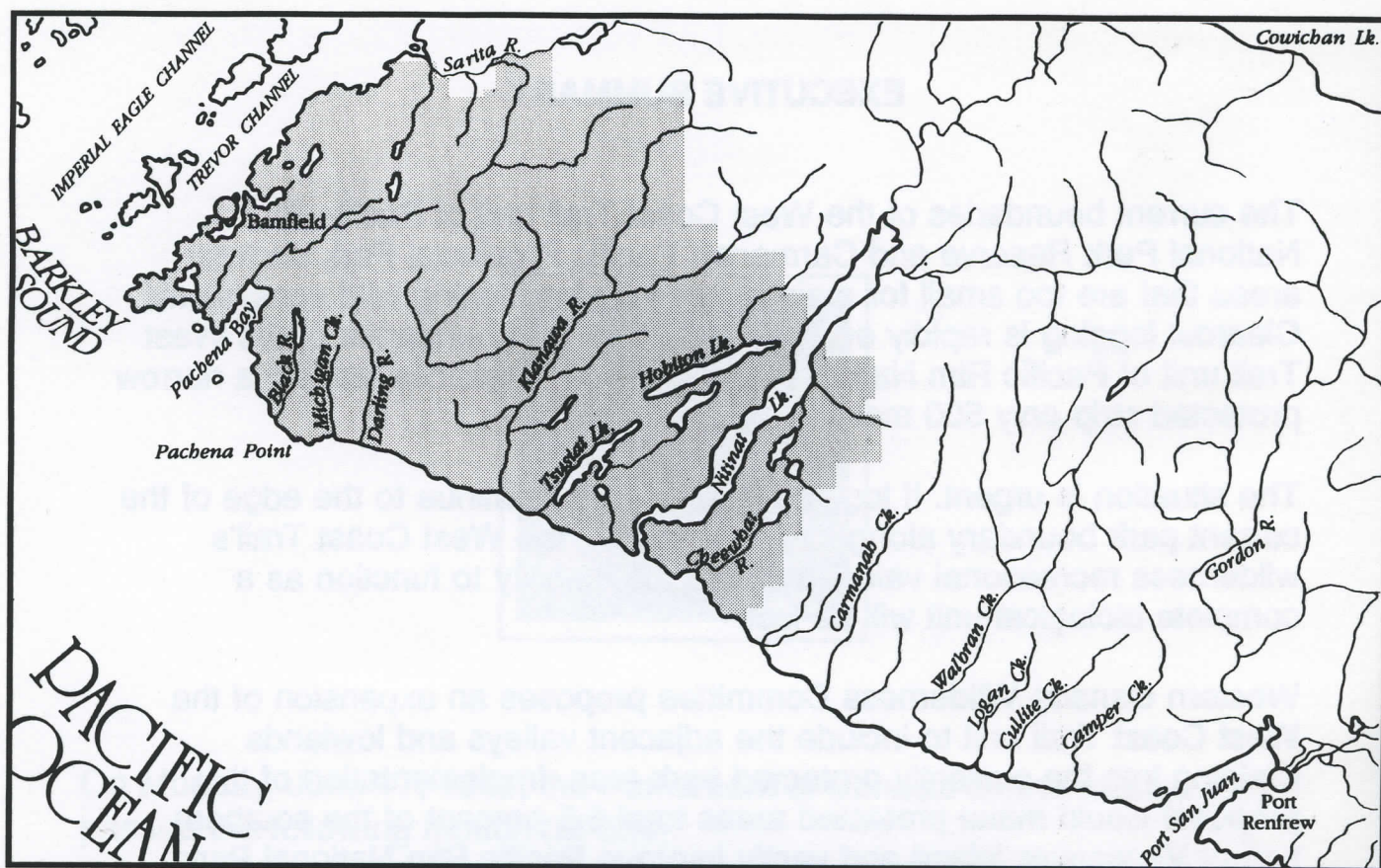


Figure 1: The Bamfield-Nitinat Recreation Reserve (1923)

INTRODUCTION

1.1 HISTORY

The west coast of Vancouver Island is the homeland of the Nuu-chah-nulth people. For over 8,000 years, these people developed a cultural philosophy and life support system based on their intimate relationship with the incredibly rich wilderness landscape. At least 13 village sites are known along the present day West Coast Trail between Bamfield and Port Renfrew. Signs of aboriginal use are present throughout the region, a superlative example of cultural and natural heritage intertwined with one another. Today Nuu-chah-nulth live in several permanent villages along the coast and still rely on the resources of the land and sea to survive and carry on their culture. In 1983 their land claim was accepted for negotiation by the federal government. All land use decisions are subject to the terms and conditions of the just settlement of their claim.



*Homeland of the Nuu-chah-nulth
Photo: Randy Stoltmann*

Interest in a national park on the west coast of Vancouver Island dates back to the 1920s when two reserves were established covering the Kennedy Lake and Bamfield-Nitinat Lake areas. The Bamfield-Nitinat recreation reserve covered approximately 61,000 hectares (Figure 1). At that time, the biological values of wilderness areas were not fully recognized, and parks were established based primarily on their recreational potential. Due to the remoteness of the area at that time, and the perception that the cold water and poor weather were not suitable for recreation, the idea for a national park was not pursued further. (These perceptions were wrong; in 1990 nearly 650,000 people visited Pacific Rim National Park Reserve [Canadian Parks Service, 1991].) The Kennedy Lake and Bamfield-Nitinat recreation reserves of the 1920s were subsequently abolished and incorporated into tree farm licences in the 1950s.

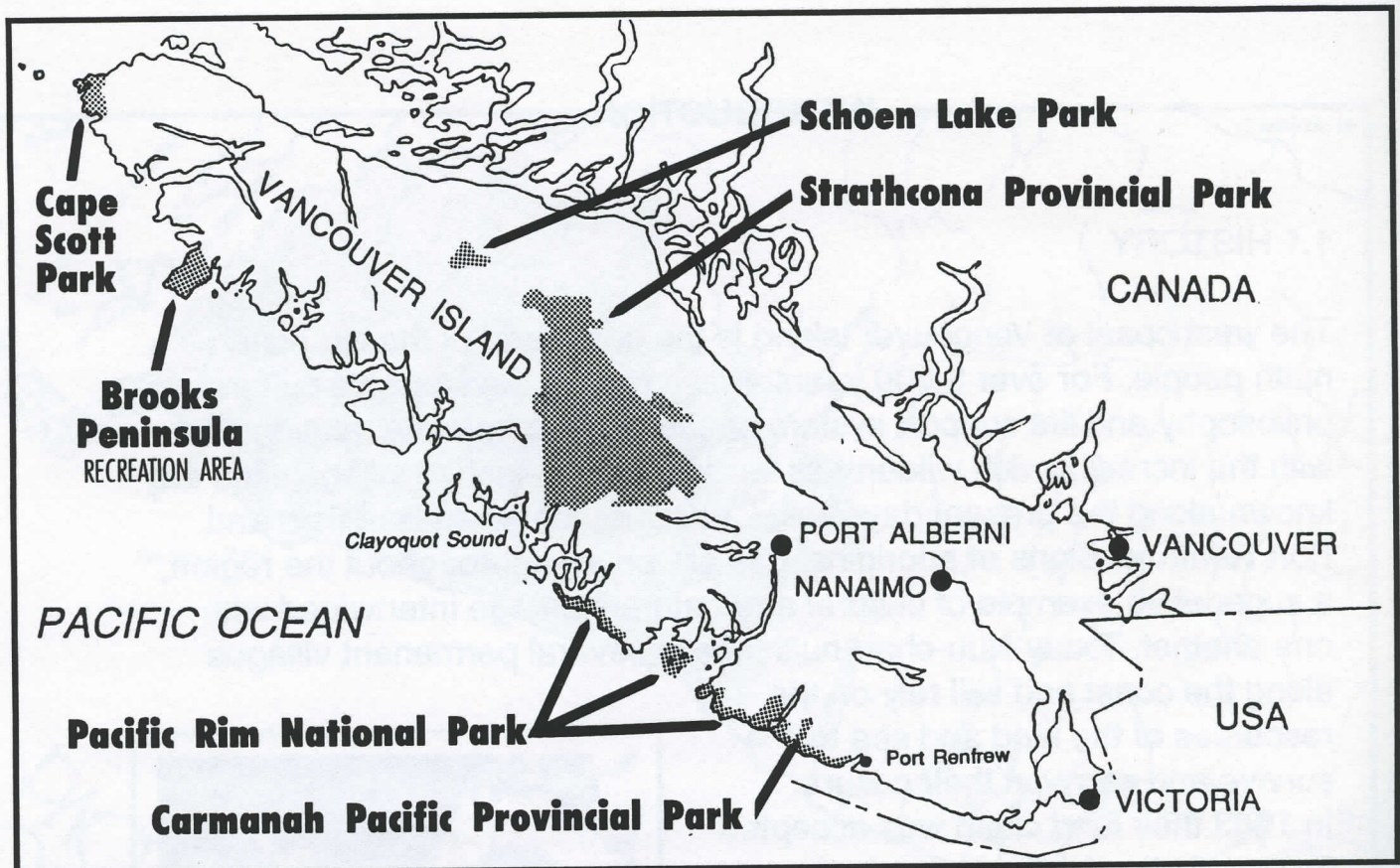


Figure 2: Vancouver Island

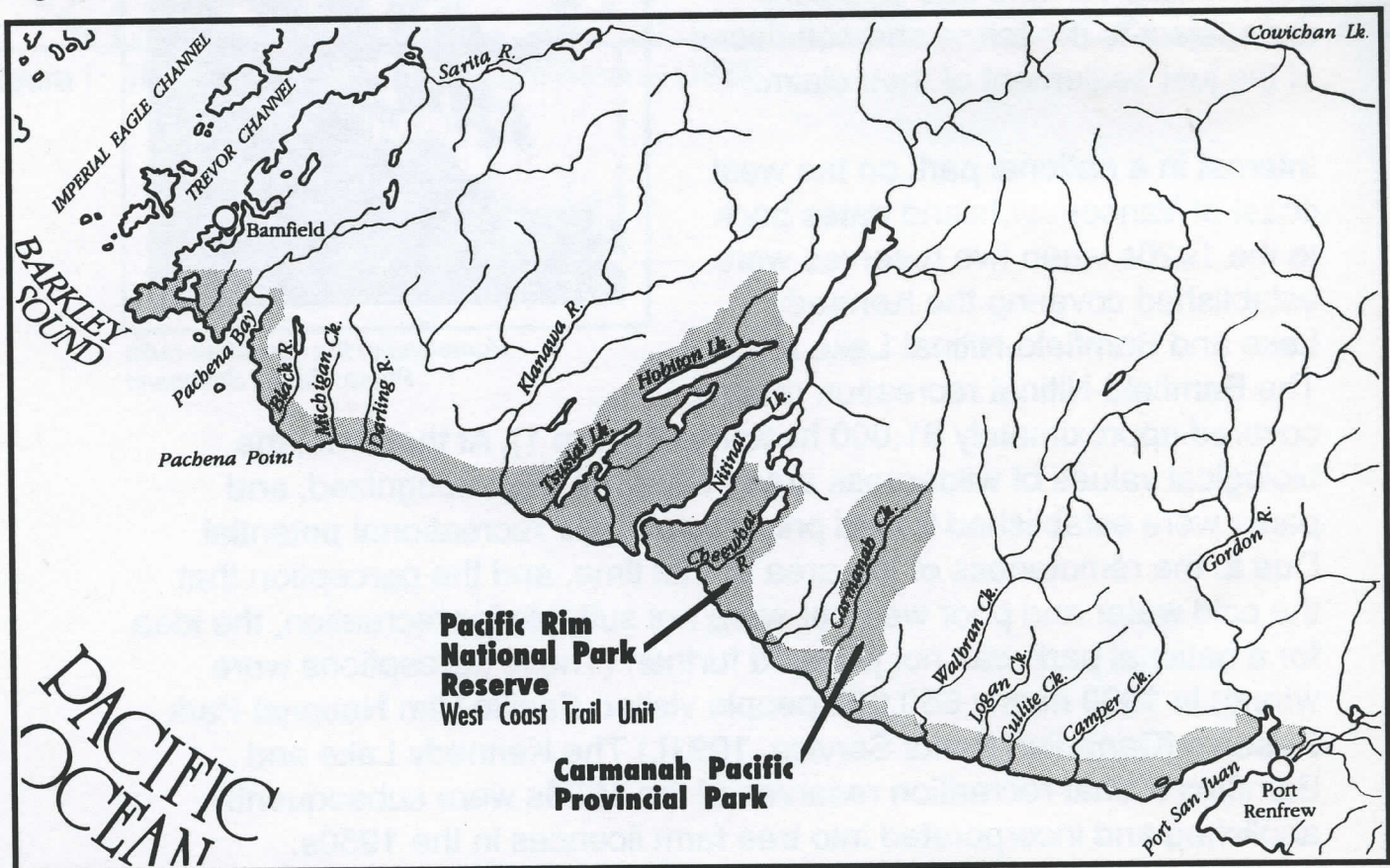


Figure 3: Existing Park boundary, Pacific Rim National Park Reserve - West Coast Trail Unit



Photo:
Ken Lay

Figure 4: Aerial view southeast along West Coast Trail from Logan Creek towards Port Renfrew



Photo:
Randy
Stoltmann

Figure 5: Aerial view west over Tsusiat Lake, Nitinat Triangle

The call for a national park was renewed in the 1960s when road access made both the Long Beach and Nitinat Lake areas accessible. Much of this campaign centred around the historic West Coast Trail, a lifesaving trail built around the turn of the century to aid shipwrecked mariners.

A federal-provincial agreement was signed in April 1970 to establish the national park reserve. Following a vigorous two-year campaign by conservation groups led by the Sierra Club of Western Canada, an amending agreement was signed in 1973 to expand the park to include the Nitinat Triangle area adjacent to the West Coast Trail Unit. A further amending agreement was signed in 1988 following completion of negotiations with affected forest companies. As of this writing, the boundaries of Pacific Rim National Park Reserve have not been legislated (verbal comm., Canadian Parks Service, 1991). National park reserve status recognizes the Nuu-chah-nulth's claim to aboriginal title over their traditional territory on the west coast of Vancouver Island. A full fledged park cannot be established without settling with the Nuu-chah-nulth peoples.

1.2 PHYSICAL DESCRIPTION

Pacific Rim National Park Reserve encompasses 49,962 hectares of land and water in three separate units on the west coast of Vancouver Island between the communities of Port Renfrew and Tofino (Figure 2). Of the total area, 28,575 hectares or 57 percent are land and fresh water lakes; the remainder is marine waters. Of the total land area, only 16,200 hectares or 59 percent is covered by old-growth forests (Roemer et. al, 1988).

This report is concerned with the 19,304-hectare West Coast Trail Unit of the park (Figure 3), which forms a narrow corridor along the coast between Port Renfrew and Bamfield (Figure 4). Mid-way along this corridor is the Nitinat Triangle, which encompasses an area of wilderness lakes and coastal rainforest (Figure 5). This is the only point at which the park reserve has sufficient depth from the coast to protect the wilderness qualities of the area. Elsewhere, clearcut logging is advancing rapidly towards the park boundary, isolating the park reserve as a narrow strip, as little as 500 metres wide, in a severely modified landscape (Figures 6 and 7).

1.3 VEGETATION

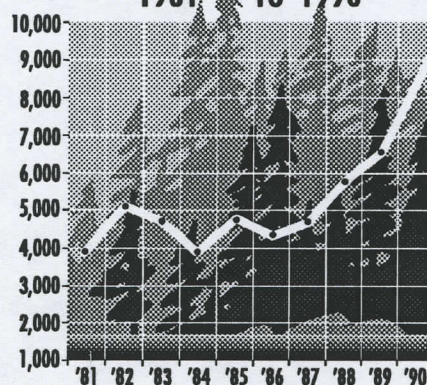
Pacific Rim National Park Reserve contains approximately 16,200 hectares of forest classified as old-growth (Figure 8). These forests are primarily composed of western hemlock, western redcedar and amabilis fir (Roemer et. al, 1988). Sitka spruce occurs along the coast and along rivers. Extensive areas of bog contain stunted stands of shore pine, western redcedar and yellow cedar.

These forests, along with adjacent unprotected stands, are of international significance (Figure 9). The largest recorded western redcedar, six metres in diameter, and the tallest recorded Sitka spruce, 95 metres tall, grow within this area. Examination of stumps in adjacent clearcuts indicate that western redcedar commonly attains ages of 1,000 to 1,400 years (Parker, 1989, Stoltmann, 1990, 1991).

1.4 WILDERNESS RECREATION AND TOURISM USE

Extensive wilderness recreation use occurs in the West Coast Trail region. In addition to the trail itself, there is canoe access to the Nitinat Triangle and hiking trails in the Carmanah and Walbran valleys. A large proportion of visitors are from other countries; this region is truly an international wilderness tourism attraction.

TOTAL HIKERS ON THE WEST COAST TRAIL 1981 TO 1990



A study concluded that the "social capacity" of the trail was 7,800 people annually.

That comfort zone was exceeded, and now reservations are required to hike the trail.

Use of the West Coast Trail has increased dramatically in recent years. Between 1986 and 1989, use increased by 56 percent to 6,693 hikers. In 1990, 9,359 hikers registered on the trail, a dramatic 40 percent increase



Photo:
Ken Lay

Figure 6: Clearcut logging along the national park reserve boundary, Camper Creek



Photo:
Randy
Stoltmann

Figure 7: Clearcut logging adjacent to the national park reserve, Camper Creek

over the previous year (Canadian Parks Service, 1991). The carrying capacity of the West Coast Trail has been estimated at approximately 7,800 people over the five-month hiking season; current use is well over capacity and continuing to climb steadily. The Canadian Parks Service has put a reservation system in place for the 1992 season (verbal comm., Canadian Parks Service, 1991).

In addition, some 15,000 people were recorded visiting the adjacent Carmanah Pacific Provincial Park in 1989 (B.C. Parks, 1991). No figures are available for visitor use in the Nitinat Triangle, upper Carmanah and Walbran Valley areas, or for off-season and other unregistered hikers on the West Coast Trail. Thus, for the year 1989, even without these additional unrecorded visits, at least 24,000 people used the West Coast Trail region for wilderness recreation. Currently there are no other opportunities for multi-day trail backpacking on southern Vancouver Island, and only very limited opportunities in the Lower Mainland.

As Vancouver Island grows in popularity as an international tourism destination, and wilderness lands elsewhere are diminished through industrial activity, demands for high quality wilderness destinations will inevitably continue to increase. Given these increases, use limitations such as those set for the West Coast Trail will be required to protect the wilderness quality of the areas if no additional areas are protected.

This region of Vancouver Island contains the only significant remaining wilderness areas within easy weekend range of the city of Victoria. It also serves the needs of international visitors and Vancouver area recreationists for low-elevation rainforest wilderness which no longer exists in the Lower Mainland area (Vold, 1990).



*Hikers on the West Coast Trail
Photo: Randy Stoltmann*



Photo:
Randy
Stoltmann

Figure 8: Old-growth: ancient temperate rainforest, Nitinat Triangle



Photo:
Randy
Stoltmann

Figure 9: Sitka spruce forest, Klanawa Valley.

There is an urgent need to plan in advance for the continued supply of wilderness areas for recreation and tourism. Wilderness is not a renewable resource; current planning must take into account the demand for all time.

The ancient temperate rainforests of the West Coast Trail region are equal in quality and grandeur to those in world-famous Olympic National Park which attracts over 3 million visitors annually.

With improved tourism facilities, possibly including a good quality loop road from Port Renfrew to Lake Cowichan, high quality campsites, improved trail systems and interpretive centres, the West Coast Trail rainforest could become the major international tourism destination for southern Vancouver Island.

1.5 BIOLOGICAL VALUES

No studies have been done by the Canadian Parks Service to determine whether or not Pacific Rim National Park Reserve can continue to function as a self-sustaining ecological unit in its current form (verbal comm., Canadian Parks Service, 1991). Wildlife populations, including carnivores such as wolf, cougar, black bear and pine marten, are known to actively use areas inside and outside the park reserve boundaries. The marbled murrelet, a seabird listed on Canada's endangered species list as a threatened species, is known to be dependent on ancient forests for nesting habitat. Marbled murrelets are found in exceptionally high concentrations in forested valleys adjacent to the national park reserve (Manley and Kelson, 1991). In addition, the types, distribution and habitat requirements of the many other species of old-



The ancient temperate rainforest is a poorly understood biological treasure
Photo: Bernie Pawlik



Photo:
Randy
Stoltmann

Figure 10: Massive habitat alteration, Haddon Creek adjacent to Walbran Valley



Photo:
Randy
Stoltmann

Figure 11: Logging-induced soil erosion

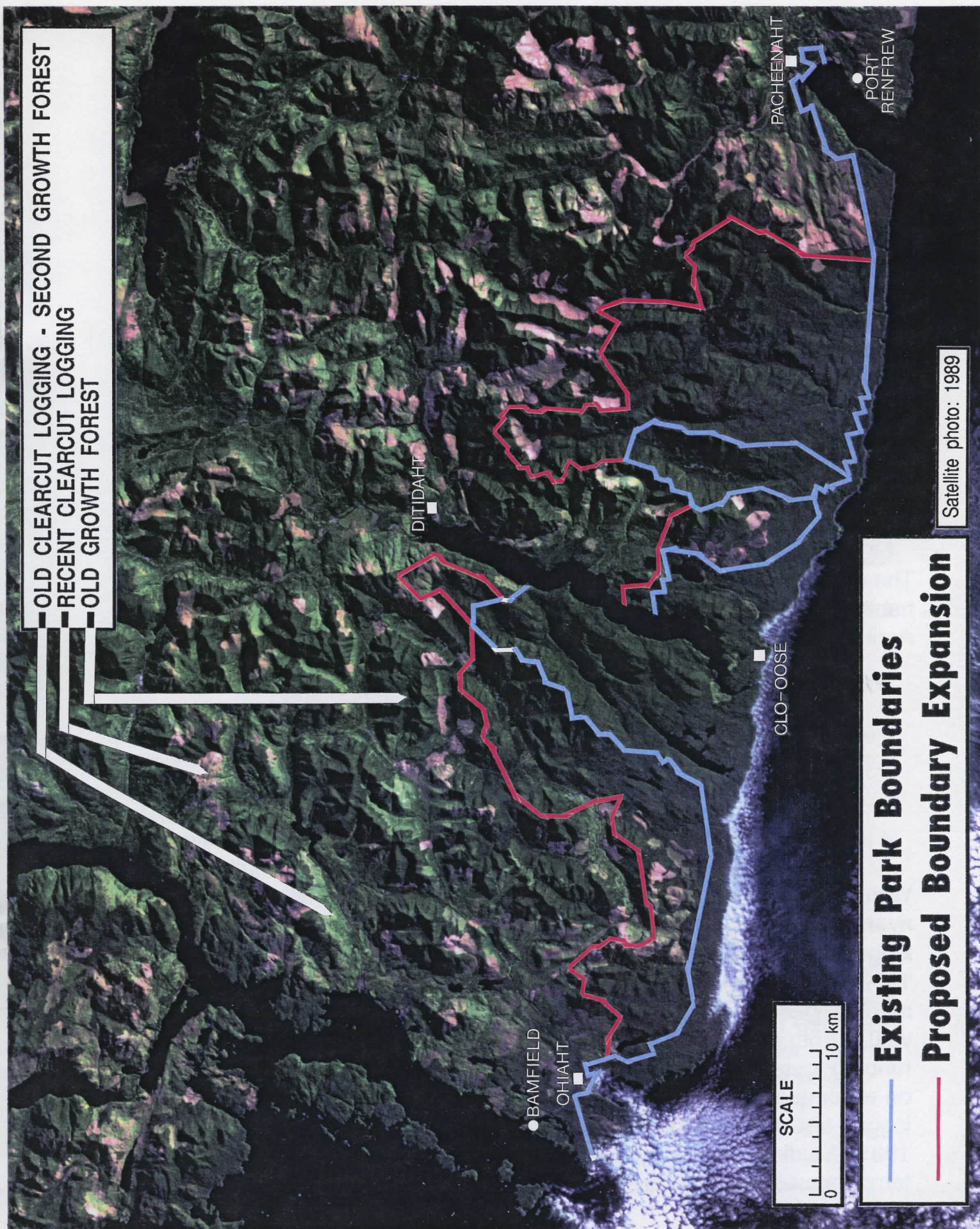


Figure 12: Satellite photo of the West Coast Trail Rainforest

growth dependant plants and animals are largely unknown.

The long term effects of habitat destruction or alteration outside the present park reserve on wildlife populations are unknown (Figure 10). For example, recent studies of the old-growth forest canopy in the upper Carmanah Valley indicate that some insects face certain local extirpation due to lack of mobility (personal comm., Winchester, 1991).

It has been suggested that the minimum viable area for a reserve be determined by the requirements of the most extinction-prone species (Pickett and Thompson, 1978). In the case of the West Coast Trail, this could be a sensitive species such as the marbled murrelet. An adequate reserve area should be sufficiently large to allow the historical maximum natural disturbances to occur. It must also be capable of enabling total recolonization of naturally disturbed areas and maintaining ongoing habitat requirements for all native species.

The quality of water flowing through the park reserve, and thus aquatic habitat, is theoretically protected by a federal-provincial agreement of April 21, 1970 which states:

"Neither party will hereafter, in any way, temporarily or otherwise, alter the flow or impair the quality, or permit the alteration of flow or the impairing of the quality, of the waters within or flowing through the (proposed) National Park, or of the off-shore waters contiguous thereto, by the construction of works or otherwise."

With the exception of the Tsusiat River and several small streams, all rivers and creeks draining into the park reserve are either being actively logged now, or are proposed for logging in the very near future. Since the 1950s, logging activity has continued at an increasing rate, resulting in much evidence of damage to water quality and other environmental values from soil erosion, landslides and increased siltation and rates of runoff (Figure 11). Despite this, the Canadian Parks Service has no data on water quality within the park reserve, and no comparative data for logged and unlogged drainages (verbal comm., Canadian Parks Service, 1991). Studies in the upper Carmanah drainage show increased water temperatures in logged areas and thus an alteration of stream ecology.

Without adequate baseline data, there is no way of assessing current and future damage.

Current information on Pacific Rim National Park Reserve is clearly inadequate for the purposes of making long-term decisions on the park reserve's viability.

PROPOSAL

2.1 THE WEST COAST TRAIL RAINFOREST

This proposal is being submitted to three governments, the Nuu-chah-nulth Tribal Council, the federal government of Canada and the provincial government of British Columbia. In order to realize the conservation goals desired by the public and reflected in the federal Green Plan and the Provincial Parks and Wilderness for the '90s program and Provincial Old-Growth Strategy, as well as achieve a fairly negotiated land claims settlement and satisfy Nuu-chah-nulth aspirations for self government, there must be a new spirit of cooperation.

The West Coast Trail Rainforest proposal encompasses the West Coast Trail Unit of Pacific Rim National Park Reserve, Carmanah Pacific Provincial Park and the adjacent valleys and lowlands draining into the park reserve. The total area is approximately 55,000 hectares, or 6.5 percent of southern Vancouver Island. By comparison, the Bamfield-Nitinat recreational reserve of the 1920s was approximately 61,000 hectares in size. The West Coast Trail Rainforest area in this proposal is the only significant area of wilderness remaining on Vancouver Island south of Alberni Inlet (Figure 12).

The current boundaries of the West Coast Trail unit of Pacific Rim National Park Reserve and Carmanah Pacific Provincial Park protected areas that are too small for maintaining fully-functioning wild ecosystems. Given their inadequacy in this regard, the growing demand for wilderness tourism and recreational opportunities and the absence of other options for wilderness protection in this region, it is imperative that the West Coast Trail unit be significantly expanded.

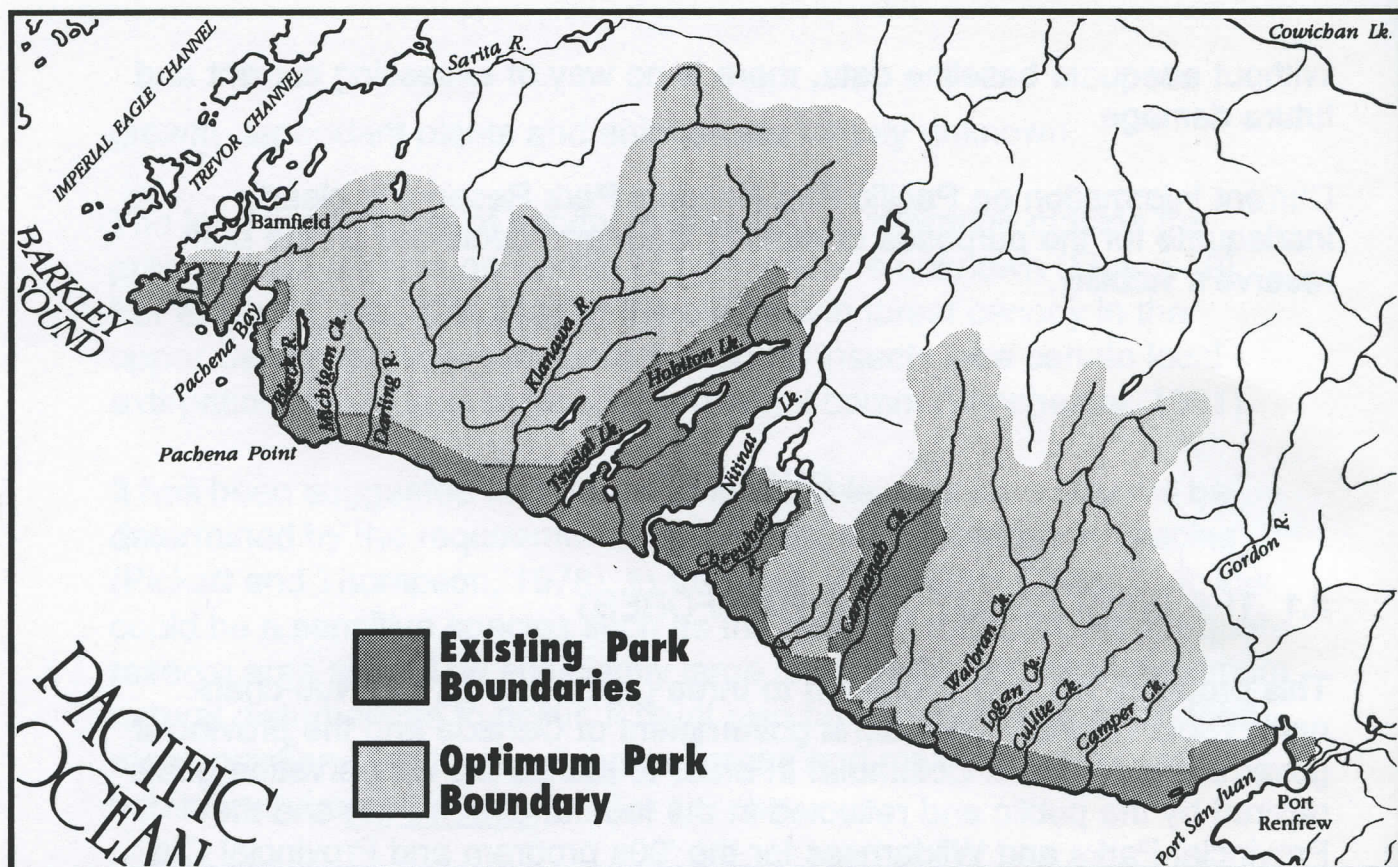


Figure 13: Optimum park boundary based on watershed boundaries

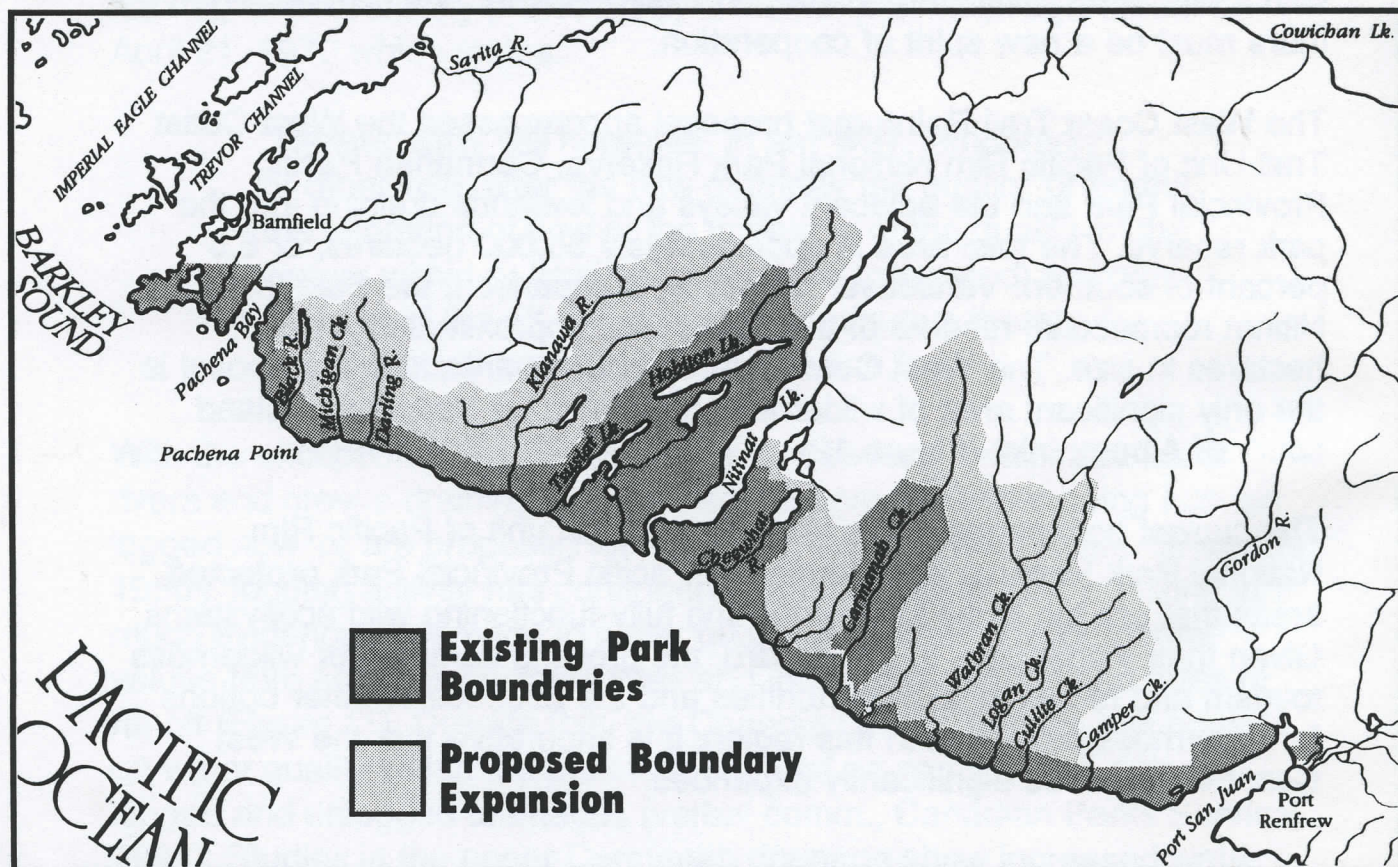


Figure 14: Proposed boundary expansion, Pacific Rim National Park Reserve - West Coast Trail Unit



Photo:
Clinton Webb

Figure 15: 5-metre-diameter western redcedar, Walbran Valley



Photo:
Bernie Pawlik

Figure 16: Walbran Canyon

Imminent roadbuilding and logging threatens all of the proposed park reserve additions, highlighting the urgent need for decisive action.

Watersheds are natural ecological units (Figure 13). Boundary revisions should follow watershed boundaries. Where existing logging activity has already encroached into such areas, clearcut areas should be included in the park reserve and allowed to

regenerate naturally. Past experiences with partial watershed protection, such as severe flooding and erosion at Bull Creek and Redwood Creek in northern California, have provided valuable lessons about the long term importance of protecting complete drainage basins.



*Fletcher Falls, Walbran Valley
Photo: Clinton Webb*

2.2 PROPOSED ADDITIONS

Several specific areas have been identified as proposed national park reserve additions (Figure 14).

2.2.1 Sandstone Creek/Cullite Creek/Logan Creek

The Sandstone, Cullite and Logan creek drainages are the only remaining totally undeveloped watersheds along the southern half of the West Coast Trail (Wilkinson, 1990). These drainages feature box canyons and significant areas of old-growth forest. They are believed to be important habitat for the threatened marbled murrelet. Roadbuilding and clearcut logging in the Sandstone Creek drainage is imminent. Development in Cullite and Logan Creeks was deferred for 18 months starting in January 1992.

2.2.2 Walbran Creek

The Walbran Creek drainage contains highly significant stands of old growth western redcedar and Sitka spruce, including some of the largest recorded examples of these species (Figure 15) (Stoltmann, 1991). Numerous scenic canyons, waterfalls and lakes, as well as a system of

established hiking trails, give this area particularly high recreational values (Figures 16 and 17).

The Walbran Creek area is confirmed habitat for the threatened marbled murrelet. The area has the highest recorded number of nesting activity murrelet sightings in B.C. The first marbled murrelet nest found in Canada was located in a giant Sitka spruce tree in the West Walbran valley in 1990 (Manley and Kelson, 1991). A second nest was discovered in the same area in 1991.

Extensive roadbuilding and clearcut logging have already occurred in the upper portion of the Walbran drainage. At the time of writing, roadbuilding is proceeding at two critical locations in the Walbran, and logging is imminent. It is proposed that the remaining intact areas of the highest recreational and biological value be added to Pacific Rim National Park Reserve. Roadbuilding and logging in the west and central portions of the Walbran was deferred for 18 months beginning in January 1992, but this shifted 1992 logging to the south Walbran, still within the proposed wilderness area.

2.2.3 Upper Carmanah Creek

The upper portion of Carmanah Creek is an integral part of the largely undisturbed natural system that has produced the tallest recorded trees in Canada. While these giant Sitka spruce are within the new Carmanah Pacific Provincial Park, the upper portions of the watershed remain unprotected (Figure 18). Protection of the entire watershed is critical to the long term protection of the floodplain spruce ecosystem. With only 2.4 percent of its area logged, Carmanah is the largest almost-intact watershed draining into Pacific Rim National Park Reserve. Extensive marbled murrelet use has been documented in the upper Carmanah drainage (Manley, Short and Burger, 1991).

The potential effects of logging in the upper Carmanah on the park downstream are currently being studied by tree farm licence holder MacMillan Bloedel under the direction of the Ministry of Forests. Meanwhile, a biological inventory of the old-growth forest canopy conducted by the University of Victoria is turning up previously undescribed insects and new distribution records (personal comm. Winchester, 1991).



Photo:
Bernie Pawlik

Figure 17: Botley and Auger lakes, Walbran Valley



Photo:
Joe Foy

Figure 18: Rainforest trail in upper Carmanah Valley

2.2.4 Doobah Lake/Oyees Lake/Cheewhat River

The forested area surrounding Oyees Lake contains exceptional examples of western redcedar forest (Figure 19). Easy access to this undisturbed lake gives the area high recreational values. An area adjacent to Doobah Lake contains an undocumented native cultural heritage site.

The entire Cheewhat River drainage should be included within the national park reserve. In particular, the west face of Carmanah Mountain is highly visible from the West Coast Trail. The visual impacts of logging this area on the wilderness quality of the park reserve were identified 20 years ago by the Sierra Club but never addressed. Ongoing logging and roadbuilding activity in this area is pre-empting options for protecting this viewshed.

2.2.5 Upper Hitchie Creek

The upper portion of the Hitchie Creek drainage is part of the Hobiton Creek watershed, approximately 78 percent of which is within Pacific Rim National Park Reserve. It is essential that the remainder of this 4,050-hectare watershed be added to the park reserve to complete the ecological integrity of this unit. Approximately one third of the unprotected area, or 6.5 percent of the entire Hobiton watershed, has been logged and would be left to regenerate naturally. Logging of additional areas in the Hitchie drainage is scheduled for the next five years.

2.2.6 Klanawa River/Blue Lake

The lower Klanawa River/Blue Lake region is one of two large blocks of wild forest remaining adjacent to the northern portion of the West Coast Trail Unit.

The lower portion of the Klanawa River has high recreational values as a canoe route. Because of potentially easy access, it is essential that a wider buffer be established in this area to protect the wilderness quality and ecological integrity of the West Coast Trail.

Several rare plants are found in the Klanawa Valley. The Klanawa contains one of only three known populations of wood sorrel (*Oxalis Oregana*)



Figure 19:
Ancient western red cedar
near Oyees Lake

Photo:
Randy
Stoltmann

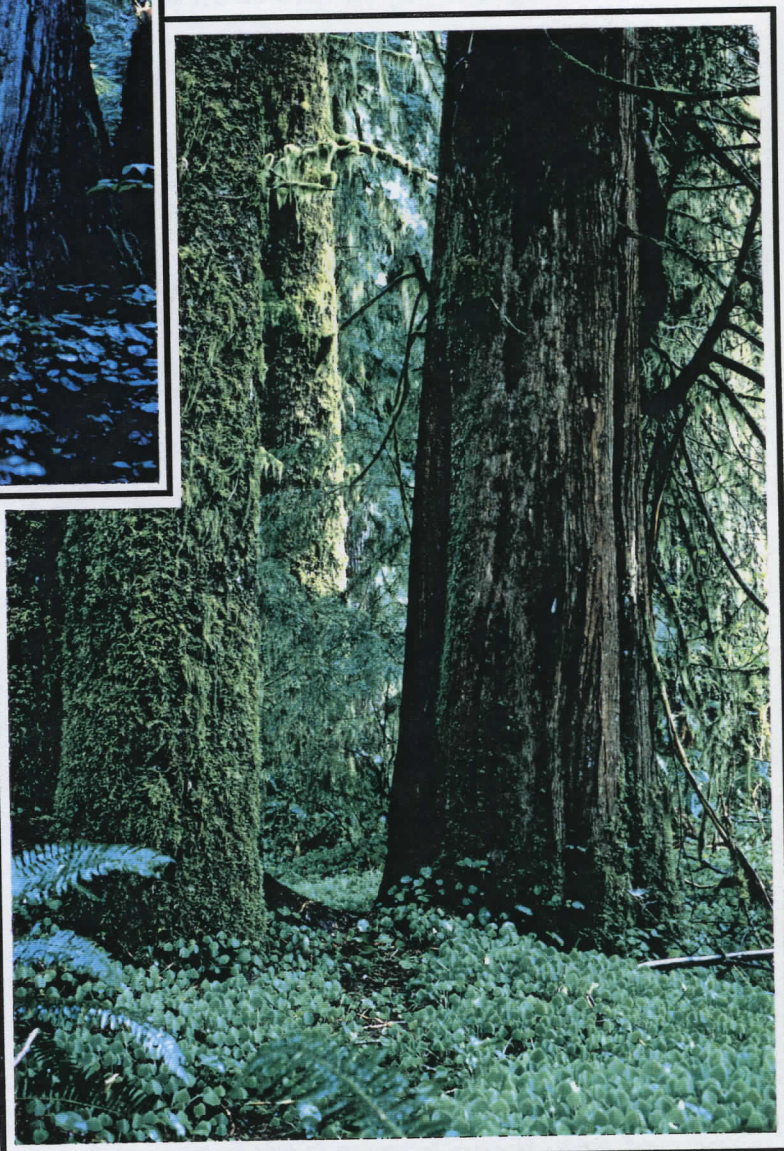


Photo:
Randy
Stoltmann

Figure 20:
Floodplain forest with
Oxalis Oregana ground cover,
Lower Klanawa River Valley

in Canada, as well as one of two known Canadian occurrences of Scouler's *Corydalis* (*Corydalis Scouleri*) (Beese, 1989) (figure 20).

Two intact sub-drainages of the Klanawa, Blue Creek and an unnamed stream should be protected. Blue Lake is one of the few remaining unprotected low elevation wilderness lakes on southern Vancouver Island. As such, it has high recreational and ecological values. Both these drainages are threatened by imminent roadbuilding and logging.

A portion of the East Klanawa contains magnificent valley bottom stands of western hemlock and amabilis fir. At the time of writing, roadbuilding is proceeding in the East Klanawa, and one block of valley bottom forest has already been logged.

2.2.7 Klanawa River to Pachena Bay

The entire area facing the coast from Klanawa River to Pachena Bay, including the complete drainages of Trestle, Billy Goat, Tsocowis, Orange Juice and Michigan creeks and the Darling and Black rivers, should be included in the national park reserve. This would ensure long-term rehabilitation and protection of natural processes in the watersheds draining into the park reserve. Part of this area has been extensively logged and would be allowed to regenerate naturally.

The Michigan Creek/Black River area is the second large block of unfragmented wild forest remaining adjacent to the northern portion of the West Coast Trail Unit.

The Michigan Creek drainage is the only remaining intact watershed of significant size along the northern part of the West Coast Trail. As such, it represents an important benchmark watershed against which to measure changes in adjacent logged watersheds. Current plans show logging and road development entering the Michigan Creek drainage in 1991/92.

The Black River and Darling River drainages have only recently been entered by logging activity. The entire drainages should be included in the national park reserve and the logged areas allowed to regenerate naturally. Because of the easy access, the recreational value of Black Lake is significant. Current MacMillan Bloedel logging plans show roads and logging extending to the current park reserve boundary in 1992.

2.3 TABLE OF PROTECTED AREAS AND PROPOSED ADDITIONS

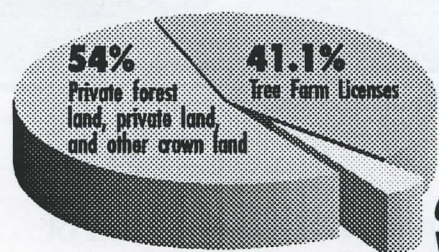
West Coast Trail Unit, Pacific Rim National Park Reserve.....	19,304 ha.(1)
Carmanah Pacific Provincial Park.....	3,592 ha.(1)
Total protected area.....	22,896 ha.(1)

Previously logged areas within proposed additions.....	2,800 ha.(2)
Estimated net area of unlogged productive forest within proposed additions.....	23,500 ha.(3)
Non-productive forest, fresh water lakes.....	6,000 ha.
Total proposed additions.....	32,300 ha.(1)

Estimated commercial timber volume within
proposed additions..... 20.2 million cubic metres.(4)

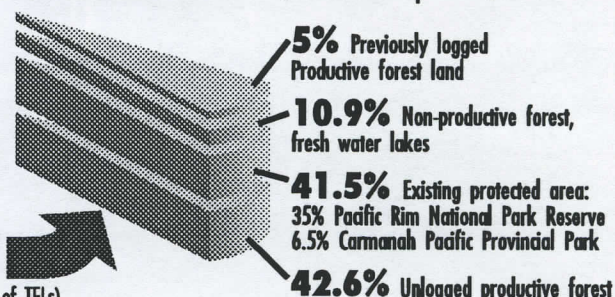
- (1) these areas include fresh water
- (2) area excludes new road rights-of-way
- (3) based on ratio of 81.4 percent working land base to total land base for TFL 44, Alberni East Working Circle. This figure is very optimistic.
- (4) based on average mature volume of 858 cubic metres per hectare for TFL 44, Alberni East Working Circle. This figure is very optimistic.

Southern Vancouver Island



6.5%
West Coast Trail
Rainforest
(Includes portions of TFLs)

The West Coast Trail Rainforest (Park Proposal)



2.4 TOURISM DEVELOPMENT AND ALTERNATE EMPLOYMENT STRATEGY

The protection of the West Coast Trail Rainforest will result in vast improvements in the national park reserve's ecological viability and recreational carrying capacity. The economic development potential for the area is also impressive - and threatened by current logging practices.

An economic development plan to benefit communities near the West Coast Trail Rainforest would include:

- A. Phasing in of environmentally friendly, employment intensive logging practices in areas adjacent to the expanded national park reserve.
- B. Major investments in outdoor recreation and tourism infrastructure development, with some facilities ready for Victoria's 1994 Commonwealth Games.
- C. Specific measures to ensure that forestry workers displaced by the park expansion are re-employed in forestry and construction work relating to their existing skills. Any financial compensation to the forest industry resulting from preservation should be prioritized to compensate displaced workers before companies.

2.4.1 Tourism Infrastructure Development

Tourism sector investment would draw many more thousands of visitors to southern Vancouver Island over the coming decades, beginning as early as the 1994 Commonwealth Games. Moreover, since the West Coast Trail Rainforest is the only remaining wilderness within easy week-end reach of Victoria, the area is a prime potential recreation area for generations of southern Vancouver Island and Lower Mainland residents, given an adequate land base and infrastructure. By contrast, conflict over continued logging in the West Coast Trail Rainforest is undesirable from a tourism perspective.

Major projects could include:

- A. A paved circle route highway from Port Renfrew to Lake Cowichan via Nitinat Lake with good quality spur roads to Walbran, Carmanah, Nitinat Lake and Klanawa staging areas.
- B. Intensive use facilities such as campgrounds, lodges, restaurants and sport facilities at Nitinat Lake and Port Renfrew. Facilities should be built and operated in close participation with local native communities.

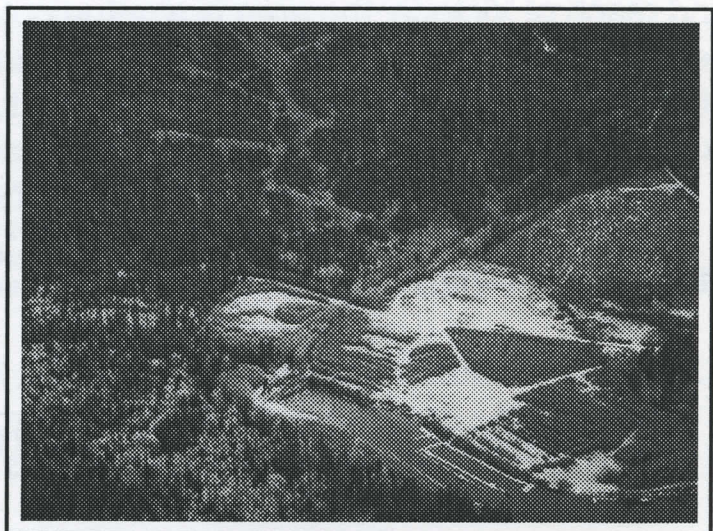
- C. Native tourism-based community economic development focusing on native cultural heritage, sport fishing and other local activities.
- D. Wilderness trail systems with rustic shelters and boardwalks linking Carmanah, Walbran, Logan, Cullite and Klanawa valleys, offering much-needed multi-day wilderness backpacking opportunities.
- E. Educational visitor centres and interpretive trails at Walbran, Carmanah and Klanawa trailheads.

2.4.2 Ecological Research

Current knowledge about wild ecosystems of the West Coast Trail region is very limited. To benefit both the protected areas and forestry operations, a West Coast Trail ecological research centre focusing on ancient forest ecosystems, conservation biology and restoration biology should be developed. Interpretive programs in the protected areas would be carried out in close co-operation with the research centre.

2.4.3 Forestry Worker Re-employment

Jobs based on the logging of ancient forests are not sustainable in the long term. Even if all the remaining ancient forests of the Pacific Rim Rainforest were logged, there would be a continual loss of jobs during the transition period to lower volume second-growth forests. In addition, job losses due to mechanization of logging and milling procedures will continue.



*Abandoned logging camp, Port Renfrew
Photo: Randy Stoltmann*

Based on one direct permanent job from every 1,000 cubic metres of allowable annual cut, and an 80-year rotation, there would be approximately 250 jobs "lost" if the entire West Coast Trail Rainforest proposal

area were preserved. These jobs can be made up in various ways. It is proposed that:

- A: Tertiary manufacturing facilities for finished wood products that would maximize local employment opportunities be established.
- B. Silviculture activities must be greatly expanded to ensure that production of future timber supplies is assured, but not at the expense of fully functional ecosystems. Displaced forestry workers should be re-employed in these activities.
- C. More environmentally sensitive and employment intensive logging methods must be made mandatory, including broadly based replacement of clearcutting by various partial cutting regimes and replacement of grapple yarding systems with environmentally friendly aerial yarding systems.
- D. Labor intensive "New Forestry", the application of partial cutting regimes which ensure maximized long term ecosystem productivity, should be rapidly phased into current operations and planning processes. The establishment of tertiary manufacturing facilities for finished wood products would maximize local employment opportunities.
- E. Tourism infrastructure construction and maintenance would re-employ some forestry construction and engineering workers.
- F. Generous early retirement packages should be developed for older displaced forestry workers who are not easily re-employed.

SUMMARY

3.1 The Opportunity

The West Coast Trail Rainforest region offers an unparalleled opportunity to preserve one of the finest remaining tracts of ancient temperate rainforest wilderness within easy range of major B.C. population centres. There has been a dramatic increase in concern for and awareness of these internationally significant forests, both locally and abroad. With a well thought out tourism development strategy, the West Coast Trail Rainforest could provide tourism, recreation, education and wilderness opportunities for both local people and visitors, while protecting the cultural and ecological integrity of a portion of our national heritage—Pacific Rim National Park Reserve.

Here on the westernmost edge of Vancouver Island the Nuu-chah-nulth culture thrives on the resources of forest and sea. There exists the opportunity to foster cooperation and respect through the creation of a new form of jointly managed national park reserve which protects both wilderness values and Nuu-chah-nulth aspirations.

REFERENCES AND LITERATURE CITED

B.C. Parks, Draft Interim Management Statement, Carmanah Pacific Provincial Park, North Vancouver: Ministry of Lands and Parks, 1991.

Beese, W.J. Oxalis Oregana in the Klanawa River, Nanaimo: MacMillan Bloedel - Woodland Services, 1989.

Canada Parks Service, Background Information, Management Planning Program, Pacific Rim National Park Reserve, Environment Canada, 1991

Canada Parks Service, National Parks System Plan, Ottawa: Environment Canada, 1990.

Canada Parks Service, Choosing our Destiny, Environment Canada, 1990.

Hambleton, Howie, acting superintendent, Pacific Rim National Park, Canada Parks Service, verbal communication, July 1991.

Henwood, William D., management planner, West Coast Co-ordination, Canadian Parks Service, verbal communication, June 1991.

Manley, Irene and John Kelson, Discovery of a Marbled Murrelet Nest in the Walbran Valley on Vancouver Island, 1991.

Manley, Irene, Robin Short and Allan Burger, Activity Levels and Behavior of Marbled Murrelets in the Carmanah Valley, Vancouver Island, Canadian Wildlife Service, 1991.

Pickett, S.T.A. and John A. Thompson, Patch Dynamics and the Design of Nature Reserves, Biological Conservation 13, pgs. 27-37, 1978.

Parker, M.L. and Benjamin Parker, Preliminary Dendrochronological Investigations in the Carmanah Creek Area, Vancouver: Western Canada Wilderness Committee, 1989.

Roemer, Hans L., Jim Pojar and Kerry R. Joy, Protected Old-Growth Forests in Coastal British Columbia, Natural Areas Journal, Volume 8 (3), 1988.

Stoltmann, Randy, Preliminary Examination of Western Red Cedar Stumps in the Carmanah Creek Headwaters, Vancouver Island, Vancouver: Western Canada Wilderness Committee, 1990.

Stoltmann, Randy, Hiking Guide to the Big Trees of Southwestern British Columbia, Second Edition, Vancouver: Western Canada Wilderness Committee, 1991.

Vold, Terje, Wilderness in British Columbia, Victoria: Ministry of Forests, 1990.

Watts, Richard, Marbled Murrelet, Birds of the Wild, Spring, 1992, pp. 34-37.

Webb, Clinton, The Status of Vancouver Island's Threatened Old Growth Forests, Vancouver: Western Canada Wilderness Committee, 1992.

Western Canada Wilderness Committee, The West Coast Trail Rainforest: It's Time To Save What's Left! Educational Report Vol. 11, No. 4, Spring 1992.

Wilkinson, John F., Undeveloped Watersheds on Vancouver Island Larger Than 1,000 Hectares, Victoria: Ministry of Forests, 1990.

Winchester, Neville, University of Victoria biology department, verbal communication, July 10, 1991.

Young, Cameron, Life at the Top, Canadian Geographic, November/December, 1992, pp. 82-91.