



David
Suzuki
Foundation

SOLUTIONS ARE IN OUR NATURE

**CLEARCUTTING
CANADA'S RAINFOREST
STATUS REPORT 2005**

Canada's Rainforests Under Threat

Canada's coastal temperate rainforest is a magnificent and globally significant old-growth forest ecosystem that contains the highest biomass of any ecosystem on the planet. Found on the Pacific Coast of the province of British Columbia (B.C.), this rainforest ecosystem supports a wide range of species, including large wild Pacific salmon runs, Grizzly bears, wolves, unique white Kermode/Spirit bears, and rare species including the Northern Goshawk and the endangered Marbled Murrelet.

Compared to other areas of B.C., this region has remained relatively inaccessible to industrial-style resource extraction, leaving large areas impressively preserved. The largest remaining intact areas of this unique forest are found between the northern tip of Vancouver Island and the Alaska Panhandle, including Haida Gwaii (the Queen Charlotte Islands).

continued >>>

Key Findings



1 Clearcutting continues in Canada's rainforests

74% of logging in Canada's rainforest is clearcut logging.¹



2 Salmon streams under threat

46% of logging in Canada's rainforests is taking place in the most productive salmon watersheds.



3 Logging of old-growth continues

78% of logging in Canada's rainforests has been in old-growth forests – home to majestic old-growth cedar and sitka spruce.



4 Species at risk

Proposed protection for the Great Bear Rainforest leaves **80%** of white "spirit" bear habitat at risk to logging.²

¹ Clearcutting is defined by the removal of over 70% of the trees from a specific logging site.

² Spirit Bear data courtesy of Valhalla Wilderness Society

However, as forest exploitation pressures have increased, the future of this rainforest has become the focus of intense debate, both within Canada and internationally. The fate of this magnificent area now rests in the hands of government, who are engaged in a land-use decision-making process that will define the degree to which this ecosystem will be protected and the degree to which forestry, mining, and other development will be permitted in the future.

Background

APRIL 2001: AN INTERIM LAND-USE AGREEMENT

On April 4, 2001, after four years of land-use planning meetings, the B.C. government, First Nations, industry, environmentalists, and local communities reached an agreement to design a system of protected areas and to explore how ecosystem-based management (EBM) could be applied to better manage this ancient coastal rainforest.

This historic agreement signaled a landmark level of commitment to environmentally responsible forest practices and planning. The B.C. government, the forest industry and environmental groups committed four

million dollars to establish a 'blue ribbon' science panel – the 'Coastal Information Team' (CIT) – tasked with developing standards for EBM in B.C.'s coastal rainforests.

The 2001 agreement set the stage for more specific discussions between stakeholders at land-use planning tables. In parallel with this agreement, the provincial government formalized a protocol agreement with coastal First Nations that committed the parties to a government-to-government negotiation to ratify final land-use plans.

Between April 2001 and April 2004, the CIT developed a comprehensive set of EBM recommendations, which can be found at www.citbc.org. In parallel to the CIT's work, an EBM pilot project was established in the Kitisnoo and Git Ga'at First Nation territories to explore practical options for implementing EBM.

Recommendations from this pilot project and the CIT subsequently informed negotiations between First Nations and the provincial government. These negotiations resulted in a package of proposed protected areas and recommended an ongoing process, which would operate until March 2009, to establish legally binding objectives and standards that would define the EBM standards for the area.

2005: MORE DELAYS – LOGGING CONTINUES UNRESTRICTED

In April 2005, the land-use plans negotiated between coastal First Nations and the provincial government were submitted to the B.C. government cabinet for ratification. The cabinet opted not to adopt the land-use plans at this time, instead deferring the decision until after the May 2005 election.

This unfortunate delay means the forest industry will continue logging on the B.C. coast under the current regulations of the B.C. Forest Act and the Forest and Range Practices Act. These statutes and associated regulations fall far short of the EBM recommendations of the CIT.



The David Suzuki Foundation's Status Reports

Over the past four years, the David Suzuki Foundation has studied the scope and type of logging that has taken place in the area known as the Great Bear Rainforest (North Coast, Central Coast and Kalum forest districts) and Haida Gwaii (Queen Charlotte Islands) to determine if logging practices have improved since the interim land-use agreement was established in 2001. Our analysis also examines to what degree current land-use negotiations incorporate EBM and whether proposed protected areas adequately safeguard remaining old-growth forests, wildlife habitat and endangered species.

This report, the third in a series, examines the following:

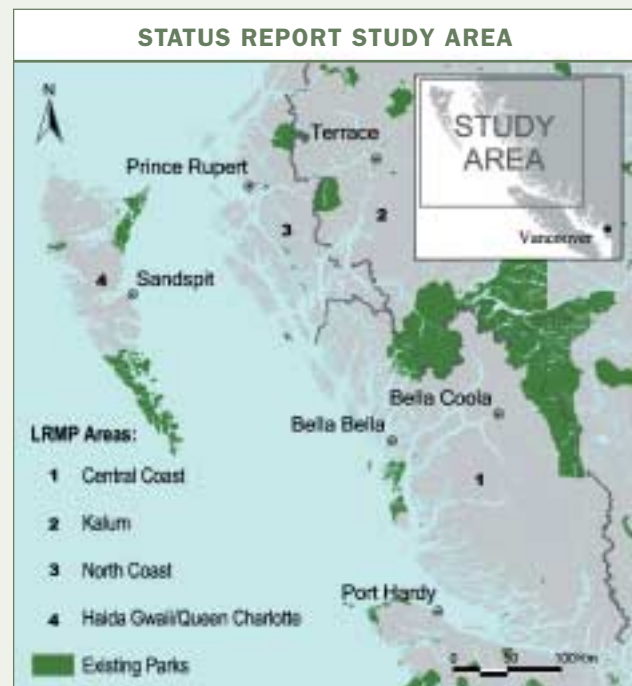
1. The status of logging in the Great Bear Rainforest and Haida Gwaii (combining new findings with the findings of the first two status reports);
2. The conservation value of protected areas designations currently being proposed for the North and Central Coast Forest Districts, and;
3. The current state of land-use recommendations for EBM standards currently being negotiated for the North and Central Coast Forest Districts.

The extensive results for this cumulative report can be found on our interactive status report website: www.canadianrainforests.org.



STUDY AREA AND ANALYSES

The protocol between the provincial government and the governments of the Coastal First Nations is central to the 2001 agreement. Geographically, the territories of the Coastal First Nations cover Haida Gwaii (Queen Charlotte Islands), the North and Central Coast Forest Districts, and the coastal southwest corner of the Kalum Forest District. These territories comprise the study area for the David Suzuki Foundation's Status Reports. The North Coast, Central Coast and coastal part of the Kalum Forest Districts are commonly referred to as the 'Great Bear Rainforest'.



LOGGING ANALYSIS

This analysis assesses the logging taking place in the study area, and determines if and how it has improved since the 2001 interim land-use agreement. It considers all of the logging plans that were either approved for logging or approved and logged since the 2001 agreement. For a detailed look at the methodology please see our Status Report interactive website: www.canadianrainforests.org.

This third annual logging analysis is a cumulative assessment of logging for the past three and a half years.

The following combines findings for the entire study area. Findings for each forest district and a breakdown by company can also be found at: www.canadianrainforests.org.

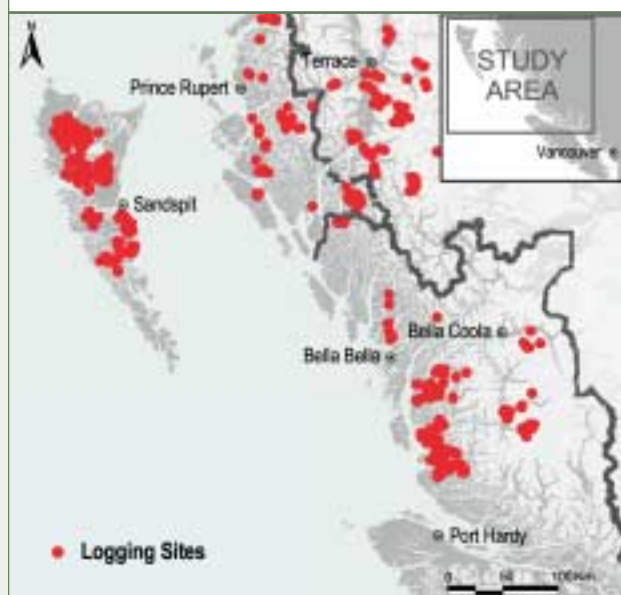
1. LOGGING CONTINUES IN CANADA'S RAINFOREST

Over 600 cut blocks in the study area have been approved for logging or approved and logged since 2001. (Note that a large number of site coordinates were not made available by the BC government).³ Contrary to the public perception that the Great Bear Rainforest has been saved, hundreds of sites are logged in this region every year. Since the 2001 agreement, over 300 cut blocks have been logged in the Great Bear Rainforest. Another 300 have been logged in the Kalum Forest District and Haida Gwaii.

The map below identifies some of the 600+ sites that have been approved for logging or approved and logged since the 2001 agreement.

³ For the first two status reports we received most of the data that we requested from the Ministry of Forests, although some logging plans are missing necessary information. But in this final year we did not receive much of the data that we requested. This could partly be attributed to changes in data that the BC Ministry of Forests has under its control (the Ministry has stopped requiring logging companies to submit detailed logging plans for government review). It is also due in part to the Ministry not having enough staff to fulfill requests due to cutbacks (even though they are legally required to respond to a data request within one month, it has been more than a year and much of our data request is still outstanding). Because of this we cannot even be sure of the exact number of logging sites in our study area.

LOGGING SITES PLANNED SINCE APRIL 2001



2. CLEARCUTTING CONTINUES IN CANADA'S RAINFOREST

74% of logging in the Great Bear Rainforest and Haida Gwaii continues to be done by clearcutting (removing 70% to 100% of the trees on a specific logging site). The graph below provides a more detailed breakdown of the degree of clearcutting.

3. LOGGING OF OLD-GROWTH CONTINUES IN CANADA'S RAINFOREST

Since 2001, 78% of logging in the Great Bear Rainforest and Haida Gwaii has been in old-growth forests.

Percentage of clearcutting in the Great Bear Rainforest and Haida Gwaii*



*clearcutting is defined as over 70% of the trees removed



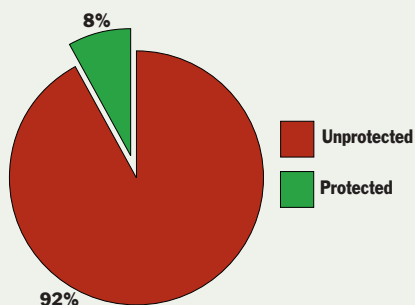
Logging endangered monumental cedar: Since 2001, 37% of all the logging in the Great Bear Rainforest and Haida Gwaii has been in rare and increasingly endangered old-growth cedar forests.

4. LOGGING IN SALMON-BEARING WATERSHEDS CONTINUES IN CANADA'S RAINFOREST

Logging Canada's best remaining salmon runs: Since 2001, 46% of logging in the Great Bear Rainforest and Haida Gwaii has taken place in the region's most productive salmon bearing watersheds—watersheds that provide spawning habitat for some of the healthiest wild salmon runs remaining in Canada.

Small streams logged to their banks: Since 2001, only 8% of small fish-bearing streams flowing through logging sites were fully protected.⁴

Percentage of small fish-bearing streams flowing through logging sites protected by streamside buffers



⁴ The David Suzuki Foundation analyzed S4 streams as classified by the former B.C. Forest Practices Code.

Logging Canada's richest estuaries: Since 2001, 30% of logging in the Great Bear Rainforest (North and Central Coast Forest Districts) has been in watersheds with large salmon runs that flow into estuaries. Estuaries are important rearing grounds for juvenile salmon.

5. LOGGING CONTINUES IN CRITICAL HABITAT FOR THREATENED SPECIES

Logging in endangered species habitat:

- Since 2001, 83% of government-approved logging plans in Canada's rainforests are in the critical nesting habitat of the Northern Goshawk (which includes the endangered *laingi* subspecies)
- Since 2001, 37% of government-approved logging plans in the Great Bear Rainforest and Haida Gwaii are in the habitat of the endangered Marbled Murrelet.

PROTECTED AREAS ANALYSIS

Our *protected areas analysis* examines the conservation value of protected areas currently being proposed for First Nations territories that encompass North and Central Coast forest districts. A Geographical Information System (GIS) mapping approach was used to analyze the degree to which proposed protected areas include critical habitat for a list of focal species. The degree to which other attributes, such as old-growth forests and the Timber Harvesting Land Base (THLB), were represented was also analyzed.

A decision on a final and conclusive package of protected areas is still pending – negotiations will continue and protected areas maps may change in the final negotiation process between First Nations and the BC government, anticipated to occur in the second half of 2005. Note that Haida Gwaii and the Kalum Forest District are not included in this analysis (A land-use plan for Haida Gwaii is currently being developed, and the Kalum Forest District's land-use plan has already been completed but is not part of this analysis).

This Status Report evaluates the degree to which proposed protected areas for the north and central coast meet the scientific standards for the protection

of environmental values as defined by the Coast Information Team's (CIT) standards for EBM.

PERCENTAGE OF PROTECTION

According to the most recent proposal for protection,⁵ 28% of the region is being recommended for protection, 9% of this is existing protection, and an additional 19% is proposed new protection.

Another 3.4% is currently proposed as 'biodiversity areas,' which are intended to be closed to logging, but remain open to mining, road building and other high-impact industrial activity. As these areas do not afford full protection for ecosystems from industrial activity, they are not included in this protected areas analysis.

HOW MUCH IS ENOUGH?

The proposed protection is far less than the minimum recommended by the blue-ribbon science panel. With the additional protection proposed by the new package, the total proposed protected area (approximately 28%) still falls below the minimum recommended by the CIT and other independent scientific literature. The CIT recommended that the specific needs of individual focal species could be met if at least 40-60% of the region were placed into some form of protection for biodiversity. These levels of protection are necessary in order to provide the undisturbed landscapes needed by wide-ranging carnivores like wolves and grizzly bears, and to maintain keystone ecological processes such as the upstream movement of marine-derived nutrients via spawning salmon.

High levels of protection are also required in order to ensure that large core protected reserves, and riparian and terrestrial corridors that interconnect them, are available on the landscape. Large core reserves are important, as there is considerable scientific evidence which shows that isolated parks within intensively



managed landscapes quickly become islands of extinction.

Protection of less than that recommended by the CIT and other science bodies means there is an inherent medium to high level of risk to species over the long term.

WHAT KIND OF PROTECTION?

According to the most recent land-use plan proposals, most protected areas will continue to allow trophy hunting, including the hunting of apex carnivores like grizzly bears and wolves, placing the long-term population viability of these species at risk. In fact, these protected areas could become 'population sinks,' whereby these species gravitate to protected areas, which become prime destinations for hunters.

ALL PROTECTION IS NOT CREATED EQUAL

Despite the ongoing debate by scientists on how much is enough, there is a strong consensus that in order for protection to be functional, the quality of the habitat selected is as critical as the overall amount of protection on the landscape.

If a protected areas system has a disproportionate level of low or marginal-value habitat, such as

⁵ Because these protected areas have not been finalized, we worked from the most recent proposals. The versions of protected areas that we analyzed were produced on March 24, 2005 for the Central Coast Forest District, and March 9th, 2005 for the North Coast Forest District.

recovering clearcuts or isolated patches of old forest, it may not provide for the habitat needs of late successional and old-growth associated species such as the Marbled Murrelet or the Northern Goshawk. Because these and many other species are dependent upon large old trees for nesting and for foraging habitat, it is necessary to protect extensive areas of relatively intact old-growth forests.

Similarly, the specialized riparian habitat requirements of the tailed frog preclude most logging activities within areas devoted to their conservation. For this reason, the CIT strongly argued that the very best and most representative areas must be included in the overall protected areas designations.

OLD-GROWTH FORESTS ARE AT RISK

- The proposed protected package in the Great Bear Rainforest leaves 75% of old-growth forests unprotected from logging and other forms of development.
- The proposed protected package in the Great Bear Rainforest leaves 77% of cedar old-growth unprotected from logging and other forms of development.

HIGH-VALUE HABITAT AT RISK

Only 35% of areas that the CIT identified as being highly intact and with significant conservation value are currently proposed for protection, leaving 65% of the most important ecosystems at risk of logging and other forms of development.

The currently proposed protected areas were analyzed, according to how much optimal habitat they protect for six key focal species identified by the CIT.

The analysis revealed that the proposed protection package leaves:

- 80% of critical spirit bear habitat⁶ at risk of development.

⁶ This analysis includes the amount of Spirit Bear habitat protected outside the Great Bear Rainforest (i.e.: all spirit bear habitat). This analysis was based on a model created by Valhalla Wilderness Society.

- 83% of the most suitable grizzly habitat at risk of development.
- 81% of the best nesting areas for the threatened Northern Goshawk unprotected.
- 77% of nesting habitat for the endangered Marbled Murrelet unprotected.
- 77% of mountain goat winter range unprotected.
- 76% of critical deer winter range unprotected.
- 75% of optimal habitat for the threatened tailed frog unprotected.
- 65% of the most productive salmon runs unprotected.

Salmon are a keystone species – their influence on ecological processes in coastal temperate rainforests cannot be overstated. A number of studies have shown that salmon species perform a critical role in the ecosystem both as a critical food source for many wildlife species and as an upstream vector in the distribution of marine-derived nutrients through the forest. Forest development within key salmon systems should be minimized through increased protection of riparian habitat, especially in light of other ongoing human impacts known to negatively affect salmon populations in the region, such as over-fishing, aquaculture, and the effects of climate change.





IMPACT ON LOGGING

Only 14% of the Timber Harvesting Land Base is protected.

The Timber Harvesting Land Base (THLB) is the forest area formally identified by the provincial government that is available for logging. It has the highest commercial value, and often the most ecologically rich, large-timber valley bottoms. Although an increasing amount of logging is occurring outside the THLB as new technology and information becomes available, it is important to note the THLB represents the majority of the logging companies' timber supply. In summary, the vast majority (86%) of the most valuable and most productive forest sites have been left out of protected areas and remain open to future logging.

IMPACT ON ESTUARIES

Estuaries are the transition zones between streams and ocean and contain some of the highest biodiversity in both marine and terrestrial environments. They play a critical ecological role as a nursery for many species. Juvenile salmon will spend months in these estuaries, feeding, growing, and adjusting to a salt-water environment.

In our study area there are almost 150 significant estuaries that support 80% of coastal species during some phase of their lives. 67% of these estuaries support large salmon runs that flow through them.

Currently virtually none of these estuaries are protected themselves. Only 39% of these estuaries

have any adjacent upstream protection. Only 35% of the rivers with large salmon runs that flow into these estuaries are protected – 65% are at risk of development.

Yet even as estuaries have the most to lose ecologically because they are situated downstream from rivers, and at the point where watersheds are accessible by boats, estuaries experience some of the highest direct human impacts. These impacts include:

- Sediment input from logging and road building in and upstream of estuaries
- Extraction of fisheries resources, including herring roe and shellfish
- Presence of sawmills, sort yards and canneries in estuaries
- Depletion of marine-derived nutrients due to declining returns of spawning salmon
- Dyking
- Log dumping and booming

ECOSYSTEM-BASED MANAGEMENT: FAILED ATTEMPTS AT CREATING A SAFETY NET

ECOSYSTEM-BASED MANAGEMENT (EBM)

In accordance with the 2001 interim land-use agreement, the B.C. government-appointed science panel, the Coastal Information Team (CIT) developed the CIT Ecosystem Based Management Planning Handbook. This handbook includes a comprehensive set of recommendations that articulates management objectives and thresholds required to maintain ecological integrity while providing for sustainable economic opportunities. The CIT also developed a Hydroriparian Planning Guide, which make recommendations for protecting riparian values across the landscape. These documents can be found on the CIT website, www.citbc.org. These documents were intended to guide the development of land-use recommendations and to assist in the establishment of legally binding objectives that would

embody EBM practices within land-use plans negotiated by planning forums, First Nations and the provincial government.

The David Suzuki Foundation compiled a detailed assessment of the CIT documents in its 2004 Coastal Logging Status Report and recommended immediate implementation of all aspects of the Handbook. Also assessed were the Coastal Land and Resource management Plan (LRMP) recommendations for the north and central coast. The David Suzuki Foundation identified that these plans have failed to embody the recommendations the CIT provided for hydriprarian protection.

Unfortunately, the land-use planning tables have chosen to adopt the CIT's recommendations and guidebooks only as a guide – no legally binding changes came from the multi-million dollar CIT. This allows government and industry to continue current industrial-style exploitation of natural resources.

The David Suzuki Foundation analysis concludes that few elements of the CIT's recommended prescription for EBM remain in proposed land-use agreements, thereby seriously reducing the effectiveness of the land-use plans in protecting biodiversity on the landscape outside of proposed protected areas.

"TALK AND LOG" CONTINUES

While some important elements of the CIT's EBM recommendations have been proposed in the most recent land-use agreements, they are not legally binding regulations. Until this happens, the forest industry remains unrestrained and can continue to log under the current B.C. government forest policies, which do not require an ecosystem-based management approach.

To date, the B.C. government and the forest industry have not demonstrated a willingness to ratify even a small number of important EBM standards and have proposed that consideration of the full suite of EBM recommendations proposed by the CIT could take another four years to complete, thereby providing the forest industry with an open playing field and no

requirement to improve logging practices to meet EBM standards. Essentially, this means more 'talk and log'. With little change recorded in logging practices since the land-use planning process began over eight years ago, much more work must be done. Land-use agreements must be finalized and strict timelines for implementing EBM must be mandated if we hope to see real changes to forestry practices that result in "on the ground" benefits to ecosystem values.

MISGUIDED COMMITMENT TO TIMBER PRODUCTION

Proposed land-use agreements state that long-term harvest levels should be maintained or enhanced, yet be consistent with the provisions of EBM. This statement runs completely counter to the essence of EBM, which necessitates that timber targets (allowable annual cut) be an output of planning – that the ecological priorities necessary to maintain biodiversity are the inputs that guide planning, and thus the plan dictates how much can be logged. Determining a rate of cut at the onset fails to capture the fundamental premise of EBM, and suggests that providing timber to forest companies in some way overrides the requirement to protect ecological integrity over time.

As a result of this approach, EBM objectives and targets that would serve to protect ecosystem values are limited by economic objectives. Provisions in the proposed land-use plans also offer opt-out clauses and permission for flexibility provisions, which allow



deviations from the full application of EBM as recommended by the CIT. This is not necessarily a total negation of EBM but does create a slippery slope on which to attempt to implement and enforce EBM objectives and standards over time.

LOGGING IN ENDANGERED ECOSYSTEMS

Proposed land-use agreements allow logging of blue-listed ecosystems (up to 30% at landscape scale). Even red-listed ecosystems can be logged to build roads (up to 5% at the landscape level). The proposed plans allow for relatively high levels of logging in rare and even very rare old-growth ecosystems.

There are many other limitations to the type of EBM in the currently proposed land-use plans. For a more detailed assessment of our concerns about the deficiencies in the land-use plan specific to EBM, please see our website at www.canadianrainforests.org.

MORE PROTECTION IS NECESSARY

Our assessment concludes that the ecosystem-based management provisions as is it currently being proposed in these land-use agreements do not provide an adequate 'safety net' for the majority of species and ecosystem attributes, which remain unprotected across the coastal landscape.

Reducing the risk to biodiversity and ensuring the long-term viability of species and ecosystems will require an expanded level of protection and a greater commitment to a comprehensive and binding set of EBM standards, to at least the level recommended by the CIT Handbook (November 2003 draft).

Meaningful protection is not just about the amount, but also the location of the area. Protected areas should be designated in areas that are the most ecologically important and that have a high risk of being impacted by logging or other industrial activity. The Tier One Conservation areas identified by the CIT's Ecosystem Spatial Analysis should be given higher priority for protection, and through a regional and landscape level EBM analysis, protected areas should be connected by functional and relatively well-protected habitat



networks or corridors that provide effective protection of wildlife, particularly for large carnivores.

In summary, currently proposed land-use plans have a significant shortfall in the prescription of EBM standards. Although there is some commitment to continue work on these objectives through the proposed establishment of an EBM council, the initial suite of objectives being proposed falls far short of what was recommended by the CIT. It will take years of additional work to ensure that a more comprehensive set of EBM objectives realize legal status and actually force change to the way forest companies, government and other industries actually operate on the landscape. This unfortunate delay in realizing a rigorous application of EBM means that species and ecosystems on the B.C. coast continue to face the same risks that they have for many years.

Conclusion

1. While negotiations have been taking place, clearcutting has continued. Clearcutting remains the dominant type of logging, with salmon streams, estuaries, and critical wildlife habitat bearing the brunt of the impact. These key indicators underscore the gap between current logging practices and the ecosystem-based management standards recommended by the CIT.
2. The areas currently recommended for protection in the Great Bear Rainforest leave critical habitat for focal species at an unacceptable level of risk. The size of many protected areas must be increased, and 'low-risk' EBM standards must be incorporated into areas surrounding protected areas.
3. The current state of negotiated EBM standards falls far below the CIT EBM recommendations, resulting in a moderate to high risk to biodiversity.
4. A large amount of work remains to be done before the coastal land-use plans can be framed and presented to the world as EBM-based plans that ensure the long-term viability of coastal ecosystems and the species they support.
5. As negotiations continue, critical ecosystems without protection are at risk of being logged. A moratoria on logging in critical habitat is needed immediately to avoid the 'talk and log' scenario of the past four years.



Recommendations

It is essential that the B.C. government legally protect the proposed protected areas for the Great Bear Rainforest as a first step towards long-term conservation for the region. However, as our analysis shows, these protected areas alone will not ensure the ecological integrity and function of these coastal temperate forest ecosystems.

Consequently, the David Suzuki Foundation recommends the following:

- ① The B.C. government formally designate the protected areas proposed by Coastal First Nations in their recently negotiated land-use plans as a minimum level of protection.
- ② Protected areas must be off-limits to logging, mining, road-building, trophy hunting and other activities that are detrimental to wildlife and habitat.
- ③ The B.C. government place all of the high biodiversity areas identified by the CIT science panel (Tier 1 areas) under a logging and mining moratoria until the following is completed:
 - a. Identification and protection of corridors between the protected areas, designed according to EBM objectives and management targets as set out in the November 2003 CIT Ecosystem Based Management Planning Handbook.
 - b. Expansion of protected areas that are currently too small to maintain viable populations of wide-ranging predators such as grizzly bears or coastal wolves.
 - c. Establishment of legally binding objectives that reflect the full suite of EBM recommendations articulated in the CIT EBM Planning Handbook. These objectives and standards must serve to protect the critical habitat of keystone, threatened and endangered species, particularly for carnivores like grizzly bears, within both formally designated protected areas and currently unprotected high-quality habitat.

“This is one of the few places left on Earth
with fully-functioning ecosystems and
communities that have lived in balance
with nature since time immemorial”

– DAVID SUZUKI



For more information visit the Status Report interactive website:
www.canadianrainforests.org



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