



November 25, 2008

John Doyle  
Auditor General of British Columbia  
8 Bastion Square  
Victoria, BC V8V 1X4

Dear Mr. Doyle:

**RE: Request for an audit and examination of the Ministry of Environment's failure to carry out its duty to identify critical habitat for species at risk**

## **Introduction**

On behalf of the Wilderness Committee<sup>1</sup> we hereby request that you undertake an examination of the systematic refusal of the British Columbia Ministry of Environment to identify critical habitat<sup>2</sup> for species at risk, as required by the *Canada-British Columbia Agreement on Species at Risk*, the *Accord for the Protection of Species at Risk*, and the *Species at Risk Act*.<sup>3</sup>

Please note that a number of other groups are simultaneously asking the Auditor General to conduct such an examination: see Appendix E. These groups include:

- West Coast Environmental Law Association
- David Suzuki Foundation
- Sierra Club, BC
- Dogwood Initiative
- Georgia Strait Alliance

We urge you to undertake this examination pursuant to:

- section 11 (8) of the *Auditor General Act* (the "Act"), and specifically under your authority to report on whether government is operating economically, efficiently and effectively; and
- section 13 of the *Act*, under your authority to conduct an examination respecting government, if it is in the public interest to do so.

Species at risk and their habitat constitute extraordinarily valuable Crown resources with substantial environmental, economic and social values. Identification of critical habitat for such species is an essential first step towards properly conserving these rare Crown resources.

However, we have obtained information that suggests the British Columbia government is deliberately refusing to properly identify critical habitat for species at risk. That information is outlined below.

It should be noted that habitat loss is the primary threat to BC's at-risk species. Habitat destruction and degradation threatens 86% of species at risk in the province.<sup>4</sup> Therefore, this government failure to properly identify and protect critical habitat for such species is an egregious failure to steward a key public resource. It is a failure to operate "economically, efficiently and effectively," as per s. 11(8) of the *Auditor General Act*.

Furthermore, it is clearly "in the public interest" for the Auditor General to investigate whether irreplaceable public resources are being wasted and lost due to government's failure to identify and protect at-risk species and their habitat.<sup>5</sup> This is particularly true because the refusal to identify critical habitat is contrary to both the provincial government's legal duties under the *Species at Risk Act* and its commitments under federal-provincial agreements.

The argument for why the Auditor General should examine this matter is presented below and addresses the following issues:

- The value of species at risk to British Columbians;
- The British Columbia Government's established commitment to protect species at risk;
- The BC Government's breach of its commitment/duty to develop adequate recovery strategies for species at risk;
- How the BC Government's refusal to allow the identification of "critical habitat" in recovery strategies renders the *Species at Risk Act* ineffective;
- Evidence of the BC Government's failure to identify critical habitat;

- An egregious example: the Vancouver Island Marmot;
- Other examples: Garry Oak and related species; Spotted Owls; Mexican Mosquito Fern; Rigid Apple Moss; Mormon Metalmark Butterfly; and Night Snake;
- Legal jurisdiction for the Auditor General to act; and
- Conclusion.

## **The Value of At-Risk Species**

Species at risk are an invaluable—and irreplaceable—public resource.

However, this precious resource is being depleted. At least 49 species and subspecies have disappeared from BC, including 22 species of plants, three freshwater fish, three mammals, four birds, three reptiles, three butterflies, and 11 mollusks. Of these species, five occurred nowhere else in the world and are now extinct.<sup>6</sup>

Currently, 184 BC species are formally listed as being at risk under the federal *Species at Risk Act*.<sup>7</sup> Far more are actually at risk. A recent comprehensive assessment of BC's biodiversity estimated that there are approximately 1600 species at risk in BC today and that approximately 43% of BC's assessed species are at risk.<sup>8</sup>

The value of these at-risk species is widely recognized. The Government of Canada acknowledged the value of protecting endangered species in 1992 by signing the UN *Convention on Biological Diversity*, which committed Canada to implement a national strategy to protect endangered species and biological diversity.<sup>9</sup> Canada finally delivered on this commitment in 2002 by enacting the *Species at Risk Act (SARA)* to protect and recover species that are endangered or threatened. Subsequently, the British Columbia government agreed to collaborate in implementing the *Species at Risk Act*. The Preamble of the *Species at Risk Act* notes the diverse and important values that at-risk species offer:

*Canada's natural heritage is an integral part of our national identity and history...*

*...wildlife, in all its forms, has value in and of itself and is valued by Canadians for aesthetic, cultural, spiritual, recreational, educational, historical, economic, medical, ecological and scientific reasons,*

*Canadian wildlife species and ecosystems are also part of the world's heritage.....<sup>10</sup>*

Surviving species at risk must be protected and recovered in order to maintain the multiplicity of public values described in the *Act's* Preamble. Endangered and threatened species and their habitats provide the following public values, among others:

- *Maintenance of "Supernatural British Columbia"*

Species at risk are of enormous value to this province – the province with the greatest level of biodiversity in Canada.<sup>11</sup> For example, BC represents the last refugia for many large mammals in North America, a number of which are species at risk. Species at risk in BC include the spotted owl, peregrine falcon, grizzly bear, marbled murrelets, mountain caribou, Vancouver Island marmot, and other charismatic species.

These species are an essential part of "Supernatural British Columbia" –the slogan that has long been the centerpiece of BC tourist marketing campaigns. "Supernatural British Columbia" would lose much of its appeal if we lose endangered and threatened species—and the unique habitats that they require.<sup>12</sup> The loss of species like the spotted owl, mountain caribou and Vancouver Island marmot would make it most difficult to claim that we continue to be "Supernatural British Columbia." And "Supernatural British Columbia" has enormous economic and social value to this province.

Furthermore, governments around the world now recognize the broader economic importance of protecting natural assets. For example, a number of US state governments have officially recognized that protection of open space must be included as a critical element in their plans for economic development.<sup>13</sup> A New York state government report states: "The most rapidly growing states in the country use quality of life to attract growth. New York State will not be able to compete if it cannot retain its natural and cultural assets."<sup>14</sup> The chief economist for one of California's largest corporations has found that corporate decision-makers consistently rank the quality of an area's physical environment as one of the two top factors in siting an enterprise.<sup>15</sup> With our license plates we tell businesses considering locating here that BC is the "Best

Place on Earth.” That claim rests, to some considerable extent, on the fact that BC is one of the last remaining places on earth with a relatively full spectrum of wildlife species.

Recent public opinion surveys confirm that British Columbians place a high value on species at risk and their habitats. In a 2008 survey of British Columbians, more than 80% expressed support for the protection and recovery of species at risk, with about the same number expressing concern for the loss and extinction of plants and animals in British Columbia.<sup>16</sup> Further, over three-quarters of respondents supported the enforcement of federal species at risk legislation and the majority of respondents indicated that the protection and recovery of species at risk should be given priority over economic considerations.<sup>17</sup>

A 2007 public opinion poll<sup>18</sup> of Lower Mainland residents found that approximately 95% of residents supported prioritizing the conservation and protection of wildlife species and their habitats over economic development.<sup>19</sup> In addition, over three-quarters of those surveyed agreed that it is important to protect natural ecosystems and plant and wildlife species in order to maintain human quality of life.<sup>20</sup>

- *Ecosystem Services that Habitat Provides to Economy and Society*

Endangered and threatened species are often an essential piece of an ecosystem that provides society with ecosystem services of substantial economic and social value. An accurate accounting of the value of at-risk species must recognize this.

For example, a recent Simon Fraser University study<sup>21</sup> sought to quantify the economic value of maintaining old-growth forests, a key habitat for endangered species such as the spotted owl.<sup>22</sup> The study quantified the economic value of some of the various forest functions – e.g., their functions as carbon sinks (rapidly becoming more valuable with the development of carbon trading regimes), recreation sites and the value of non-timber forest products such as wild, harvestable mushrooms. Examining several possible outcomes based on varying timber prices and demand and varying levels of timber harvesting, the study concluded in 90% of scenarios it generally made more *economic* sense to conserve the old-growth forest—and endangered species habitat—than to harvest the timber.<sup>23</sup>

Another example is wetland habitat. Wetlands support an extraordinarily high percentage of at-risk species.<sup>24</sup> And the same wetlands that provide habitat to

endangered frogs and other species also provide valuable functions to society, including:

- \*water supply;
- \*water purification;
- \*climate stabilization;
- \*carbon sequestration;
- \*waste treatment; and
- \*recreation.<sup>25</sup>

If the wetland habitat that supports the frog is lost, society may not just lose the frog. Society may not be able to replace the wetland's essential ecosystem services – or only at great financial cost.

For example, it has been estimated that the waste-cleansing services of natural wetlands in the lower Fraser Valley are worth at least \$230 million each year—and many times that amount if replacement infrastructure costs are added.<sup>26</sup> New York City found it more economical to pay \$1.8 billion to protect wetlands and other watershed lands than to pay the \$8 billion dollars it would have otherwise cost to build an artificial water filtration system.<sup>27</sup>

Similarly, wetlands are the source of water recharge for many aquifers that serve as community water supplies. One study estimated that to replace the water supply service provided by a single acre of wetland cost almost \$300,000.<sup>28</sup>

Wetlands, forests and other endangered species habitat also provide the ecosystem service of sequestering greenhouse gas emissions—a function that society is now investing billions of dollars to try to reproduce with carbon capture technology.<sup>29</sup>

Clearly, when natural habitat for at-risk species is destroyed, the economic costs associated with replacing the *goods and services* provided by that habitat can be enormous. In fact, in some cases humans will simply not be able to replace critical ecosystem services provided by the environment.<sup>30</sup>

- *Maintenance of Ecological Stability*

Diversity of genetic traits – including diversity of species – is essential for the long-term survival of any ecosystem. Ecosystems depend on many interactions among organisms

and their physical environment. When ecosystems lose species, these interactions are compromised and the ecosystem becomes less resilient to disturbance and less likely to thrive in the long-term. When potentially catastrophic natural events take place (e.g. climate change, disease pandemic, natural disasters), their effects will be most severe in degraded areas where species have been lost and biodiversity reduced.<sup>31</sup>

As Environment Canada has stated:

*Everything in an ecosystem interconnects...The disappearance of a species from the earth marks not the beginning, but the end of the process of deterioration. It is a sign that the ecosystem in which the species played its integral role has also been damaged. At some point, the ecosystem itself may be so destabilized by the loss of interactive species that it will lose its integrity and collapse. Should the actions of man place that sort of stress upon the biosphere, then the human species, for all its inventiveness, could well be the author of its own extinction.<sup>32</sup>*

British Columbia's endangered sea otters provide a good historical example of the importance of endangered species to ecological stability. In the nineteenth century, hunters eliminated the entire sea otter population on the BC coast. The loss of this species led to the destruction of massive kelp bed ecosystems along the coast that were essential nurseries for fish. As the sea otters who fed on sea urchins disappeared, the sea urchin population quickly exploded and destroyed the kelp. As a result, vast expanses of BC coastal waters were transformed from rich kelp bed ecosystems into vast sea urchin barrens – with substantial impacts on human fisheries.<sup>33</sup>

In modern times, the steep decline of natural pollination of our food crops is another example of how the fate of species is connected to our own. North American farmers are now extremely concerned about the die-off of pollinating insects, which poses a major threat to agricultural production.<sup>34</sup>

About one third of the food we eat is pollinated naturally by insects such as bees, wasps, flies and butterflies, and creatures such as hummingbirds and bats.<sup>35</sup> The value of such natural pollinators to American agriculture has been estimated at between \$5.7 and \$13.4 billion US annually.<sup>36</sup> However, numerous insect species are declining.

For example, in BC nine butterfly species are now listed as Species at Risk under SARA, and the BC Conservation Data Centre lists 81 butterfly species as "at risk."<sup>37</sup> Evidence is

mounting that the declining number of pollinating insects is causing widespread reductions in pollination services in southern Canada and elsewhere.<sup>38</sup> If we continue to lose at-risk insect species, we risk the essential contribution that pollinating insects provide to human food supply.

- *Maintaining the Long-Term Global Food Supply*

On a related topic, the American Council on Environmental Quality states that protecting global biodiversity is “essential to the billions of humans that need to be fed.”<sup>39</sup> It is critical that we maintain our present diverse variety of species in order to maintain global food security.<sup>40</sup> Such variety is necessary for the cross-breeding of plants and gene-splicing that improves agricultural yields and produces new types of food. For example, American wheat only became resistant to a variety of diseases after agronomists crossbred it with a strain of wild wheat from Turkey. Geneticists saved the Cornish chicken from extinction by crossing it with other breeds to produce the modern, fast-growing broiler chicken. Scientists are crossing a rare Mexican tall grass with corn in the hopes of producing a virus-resistant corn.<sup>41</sup>

- *Protection of Human Health*

More human medicine comes from the natural world than from any other source. Approximately 50% of all medical prescriptions contain naturally derived ingredients. From aspirin (willow trees) to heart medication (foxglove plant) to antispasmodics (belladonna), nature has provided us with countless healing and life-saving medicines. Here in British Columbia, the Pacific yew tree is a dramatic example of the importance of preserving rare species. Once discarded and burned as a “garbage tree” after clear-cut logging, in recent years scientists discovered that a chemical in the yew bark (taxol) provides one of the world’s most effective anti-cancer treatments.<sup>42</sup>

Yet, scientists have only examined a minute fraction of the world’s species for medicinal properties. As species become extinct, we lose untold medical breakthroughs. The US National Cancer Institute is currently racing against time, collecting numerous endangered species and testing them for anti-cancer potential – before those species disappear forever.<sup>43</sup>

- *Alternative Sources of Raw Materials*

In a world of diminishing resources, biological diversity plays an important role in providing alternative sources of industrial raw materials. Historically, the wild rubber tree played a key role in launching the Automobile Century.<sup>44</sup> In modern times scientists screened 6,400 plants for an alternative to petroleum lubricants – and discovered the Jojoba shrub. This plant produces liquid wax, and is now used to make polishes, linoleum, chewing gum, adhesives, disinfectants, shampoos and numerous other manufactured products. A variety of other plant species have the potential to become inexpensive alternatives to current limited energy resources. However, as species die out, we forever lose untold potential industrial resources.

In conclusion, British Columbia's species at risk are a rare and precious public resource, a resource of immense, varied and tangible value.

## **The BC Government's Established Commitment to Protect At-Risk Species**

In recognition of the extraordinary value of at-risk species, the federal government enacted the *Species at Risk Act (SARA)* in 2002. BC and Alberta are the only provinces that have failed to enact their own provincial stand-alone endangered species laws.<sup>45</sup> However, BC plays an important role in implementing the federal *Species at Risk Act (SARA)*.

Recognizing that it does not have endangered species legislation of its own, the Province entered into an agreement with Canada, the 2005 *Canada-British Columbia Agreement on Species at Risk*. Specifically authorized by SARA, the *Agreement* commits the Province to work with the federal government to implement portions of SARA—including the preparation and implementation of “recovery strategies” and “action plans.”

The *Agreement* authorizes the two governments to *jointly administer recovery planning* for at risk species.<sup>46</sup> This includes the preparation and implementation of recovery strategies, action plans and management plans within a province. SARA dictates that **recovery planning** for such species proceeds in two stages:

- First, a **recovery strategy** is created, which determines whether recovery of a species is technically feasible, sets a recovery goal and objectives and strategies for achieving the objectives, and designates **critical habitat** to the **extent possible**. Recovery strategies must generally be created within one year for species listed as endangered, and within two years for species listed as threatened or extirpated.<sup>47</sup>

- Second, an **action plan** identifies and prioritizes detailed measures to achieve recovery and includes cost-benefit analysis of the action plan. Unlike recovery strategies, action plans need not be completed within a statutory time period. Only at this later long-term “action plan” stage can socio-economic factors be considered that might constrain habitat protection measures.<sup>48</sup>

Under the *Canada-BC Agreement for on Species at Risk*, responsibility for recovery planning for a species at risk is generally assigned to the federal or provincial agency with legal responsibility for management of a particular species or habitat.<sup>49</sup>

As a result, the BC Ministry of Environment is the lead agency for developing recovery strategies for the majority of SARA-listed species within the province— including most of the terrestrial species. In addition, BC Ministry of Environment representatives sit on most recovery teams for species whose recovery planning is led by a federal agency (e.g., for fisheries, federal lands).

These federal-provincial recovery teams work pursuant to the 2005 *Canada–British Columbia Agreement on Species at Risk*. Section 11 of the *Agreement* states:

*11.1 The Parties will endeavour to develop recovery strategies and action plans that meet timelines and other requirements set in federal and provincial legislation. In doing so, the Parties will continue to apply a two stage approach to recovery planning. The first stage, the preparation of a recovery strategy, will include the determination of whether recovery of the listed wildlife species is technically and biologically feasible. If recovery is deemed to be feasible, the recovery strategy will include the recovery goal, objectives and strategies for achieving the objectives. The second stage, the preparation of action plan(s), will identify and prioritize detailed measures to achieve recovery and will include an evaluation of the socio-economic costs of the action plan and the benefits to be derived from its implementation.<sup>50</sup>*

As this Agreement excerpt makes clear, in agreeing to develop recovery strategies the Province agreed to:

*...endeavour to develop recovery strategies ...that meet ...requirements set in federal...legislation.*

What legislative requirements must those recovery plans meet, under SARA? The statute requires that the recovery strategy include identification of critical habitat to the extent possible, based on the best science.

Section 41(1)(c) of *SARA* specifically requires that every recovery strategy: *must include...an identification of the species' critical habitat, to the extent possible, based on the best available information.*<sup>51</sup>

“Critical habitat” is defined as:

*the habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species' critical habitat in the recovery strategy or in an action plan for the species.*<sup>52</sup>

Section 2.4 of the *Agreement* clarifies that the best scientific information must be used to identify critical habitat. It states that recovery planning at both recovery strategy and action plan stages:

*will be informed by the best available science.*<sup>53</sup>

To summarize, the Province has a clear duty to develop recovery strategies which include an identification of the species' critical habitat. Critical habitat must be identified to the extent possible, and be based on the best available scientific information. Recovery strategies are to focus on technical and biological feasibility. Finally, the legislation makes it clear that socio-economic costs should not be considered until the “action plan” stage of recovery planning.<sup>54</sup>

## **The Province's Breach of Its Commitment/Duty to Develop Adequate Recovery Strategies for Species at Risk**

Despite the Provincial duties outlined above, our client has learned from documents obtained through Freedom of Information (FOI) requests that it is now the established practice of the provincial government to *not* identify critical habitat for at-risk species in recovery strategies. This practice applies even when the exact location of such habitat is actually known.

The result of this practice is that critical habitat is left vulnerable to irreversible destruction through development, logging, mining, road-building, *etc.*

Through Freedom of Information requests, we have obtained a draft Ministry of Environment “Direction” statement to recovery team and staff members, which contains documented evidence of a British Columbia policy of:

- not identifying critical habitat in recovery strategies for species at risk; and

- issuance of a Direction to the teams developing recovery strategies to not identify critical habitat.<sup>55</sup> [See Appendix C]

This Direction to staff stands in direct contradiction to the requirement of s. 41 of the *Species at Risk Act*, which specifies that if critical habitat is known, it must be identified in the recovery strategy to the extent possible.<sup>56</sup> Consequently, it breaches the provincial obligation (set out above in s. 11 of the *Canada-British Columbia Agreement on Species at Risk*) to develop strategies that meet SARA requirements.

To be specific, under the heading “Critical Habitat (Required),” the BC Draft Direction states the following:

*DRAFT BC direction of Critical Habitat: provincial strategies should describe attributes of habitat (occupied and potential) only. **Geo-spatial identification of critical habitat should not be included in the recovery strategy. It should be made clear that critical habitat is not being proposed at this time.***<sup>57</sup> [See Appendix C]

The draft Direction then goes on to provide suggested wording for the recovery strategy to use, instead of identifying critical habitat. The Direction suggests the recovery strategy should use the following phrasing:

*No critical habitat, as defined under the federal Species at Risk Act [s.2], is proposed for identification at this time. While much is known about the habitat needs of the species included within this recovery strategy, more definitive work must be completed before any specific sites can be formally proposed as critical habitat. **It is expected that critical habitat will be proposed within one or more recovery action plans...***<sup>58</sup> [See Appendix C]

Other FOI documents confirm that this Direction is a guideline that provincial officials are generally being required to follow in the preparation of their recovery strategies for at-risk species.<sup>59</sup> Wording from the Direction is being found verbatim in numerous recovery strategies being developed under the leadership of provincial officials.

Clearly the Direction statement that:

*Geospatial identification of critical habitat should not be included in the recovery strategy. It should be made clear that critical habitat is not being proposed at this time.*

directly contradicts the requirement of s. 41(1)(c) of SARA, which states that the recovery strategy:

*must include...an identification of the species' critical habitat, to the extent possible, based on the best available information.*<sup>60</sup>

Note that SARA requires identification of habitat "to the extent possible, based on the best available information."

In contrast, the Direction directs that no habitat is to be actually identified. It directs that critical habitat should not be proposed and "geo-spatial identification of critical habitat should not be included in the recovery strategy." It directs that critical habitat not be identified, even when "much is known about the habitat needs of the species..."

Section 41 clearly requires the recovery teams – the most qualified scientists on a particular species who have the "best available information" on the species -- to use this "best information" to identify critical habitat "to the extent possible."

Yet the provincial Direction instructs recovery team members to do just the opposite. It directs them to ignore what is known and to *never* identify the critical habitat geospatially. It directs them that the recovery strategy should never propose critical habitat. This is just the opposite of identifying critical habitat "to the extent possible."

While s. 41 of SARA makes it mandatory to identify critical habitat to the extent possible, the Direction *prohibits* that identification. Instead, the Direction suggests standard wording that states that critical habitat will only come later, at the action plan stage. By directing recovery teams to not identify critical habitat according to the requirements of s. 41 of the federal statute, the Direction clearly violates s. 11 of the *Canada-BC Agreement on Species at Risk*, which requires the Province to develop recovery strategies that

*...meet... requirements set in federal... legislation.*

Furthermore, the Direction violates the Precautionary Principle that is the foundation of the whole *Species at Risk Act* scheme. The Direction instructs recovery teams to wait until "more definitive work [is] completed" even if "much is known about the habitat

needs of the species included within this recovery strategy.” This Direction language is contrary to the *Accord for the Protection of Species at Risk* (“the Accord”) which reflects the Precautionary Principle stated in s. 38 of SARA and states:

*We recognize that: vi) lack of full scientific certainty must not be used as a reason to delay measures to avoid or minimize threats to species at risk.”<sup>61</sup>*

In addition to the direction to BC recovery teams discussed above, the BC government also co-signed a letter to recovery teams reiterating the requirement to identify attributes but not geospatial locations of critical habitat. This letter, dated 6 June 2007, was forwarded to our clients by concerned recovery team members. The letter states:

*It is important that recovery teams understand that their role in development of the recovery strategy is to provide **the best available science-based advice** to the lead agency in the form of a technical description of the **attributes** of proposed critical habitat for the species (in whole or in part)<sup>62</sup> [See Appendix B, pp.20-23]*

In sum, the records obtained by our client suggest that the BC government has instituted a policy which directs that critical habitat not be identified in recovery strategies—even where there is sufficient scientific information to do so. This policy violates the legal obligations pursuant to SARA s. 41, the *Agreement*, and the *Accord*.<sup>63</sup> As examined below, this policy is rendering SARA’s provisions ineffective and causing invaluable public resources to be lost. This is not economic, efficient, or effective government stewardship.

In response to our argument on this point, Government might reply that the Direction still allows teams to “describe attributes of habitat...only” in the recovery strategy. However, it is submitted that the clear intent of SARA is to identify habitat by mapping it. Habitat is an area in the real world, not a set of adjectives. Habitat can’t be protected unless you know where it is. Describing general attributes of habitat no more identifies habitat than describing a house’s general attributes (brown, big shutters, front porch, small lawn) identifies the precise location of a house. Habitat is identified when its “geospatial” co-ordinates are mapped.

## **The BC Government’s Refusal to Allow the Identification of Critical Habitat in Recovery Strategies Renders the *Species at Risk Act* Ineffective**

Why is the refusal to identify known critical habitat in recovery strategies so important?

First, remember that *habitat* loss is by far the biggest threat to at-risk species. Identifying critical habitat in a recovery strategy, as required by s.41 of SARA, addresses this threat by triggering defined statutory protections against destruction of critical habitat.

However, when a recovery strategy fails to identify the critical habitat, the habitat in question is not legally “critical habitat” under the *Species at Risk Act*. SARA defines “critical habitat” as that “identified in the recovery strategy or action plan.” Therefore, when a recovery strategy fails to identify critical habitat, the habitat upon which the species relies for survival (or recovery) is deprived of SARA protection. Moreover, if critical habitat is not identified in the recovery strategy – as is British Columbia’s general approach – its identification is delayed until the action plan. Because action plans have no mandatory deadlines for production, the effective trigger for protecting habitat is delayed. And this delay may last indefinitely, as we will see below.

In practical terms, when a recovery strategy doesn’t identify critical habitat it means that a number of SARA provisions for protecting such habitat simply do not apply to the habitat area. Thus, by simply instructing teams to not identify critical habitat the Province, in essence, “administratively repeals” those protective provisions for that habitat.

The following protective provisions of the *Species at Risk Act* are rendered inapplicable when the recovery team follows instructions to not identify critical habitat in a recovery strategy:

- The prohibition against destroying any critical habitat of endangered or threatened species located on federal lands (s. 58);<sup>64</sup>
- The prohibition against destroying any critical habitat of endangered or threatened species that are not part of federal lands [s. 61(1)];<sup>65</sup>
- The obligation of the Minister to publish a “description” of the species critical habitat in the *Canada Gazette* (s. 58);<sup>66</sup>
- The empowerment of the federal Minister of Environment to make recommendations to the Governor in Council to apply SARA protective measures to specific portions of identified critical habitat outside federal lands

(ss. 58 & 61),<sup>67</sup> including a mandatory obligation to make recommendations where federal laws do not otherwise protect the species or the laws of the province or territory do not effectively protect the critical habitat;

- The empowerment of the federal Minister of Environment to purchase lands to protect identified critical habitat (s. 62);<sup>68</sup>
- The monitoring and reporting requirements of the federal Minister triggered by identified critical habitat (s. 63).<sup>69</sup>

If critical habitat is not identified in the recovery strategy, application of the above protective provisions may be indefinitely delayed. A recovery strategy must be completed in a defined time period of one to three years.<sup>70</sup> However, when identification of critical habitat is delayed until the action plan stage, it may be delayed indefinitely – *because there is no deadline* for preparing an action plan. In fact, to date across Canada only one Action Plan has actually been finalized under SARA – the action plan for the Banff Springs snail.<sup>71</sup>

*Thus, the effect of BC's policy to not identify critical habitat in the recovery strategy is to indefinitely delay protection of critical habitat for almost all at-risk species.*

## **Evidence of the BC Government's Failure to Identify Critical Habitat**

Government documents reveal that the BC Ministry of Environment has led or co-led the development of recovery strategies for 58 SARA-listed BC species. BC has completed its portion of the work for 44 of these species (32 of which have been adopted by the federal Minister as final SARA recovery strategies and 12 of which are likely awaiting federal approval). Although the habitat of many of these species is well known, only two (Spotted Owl and Nooksack Dace) of the 44 species with BC-led draft strategies have actually identified "critical habitat." It is important to note that for both those species, the identification of critical habitat occurred only after lawsuits were filed by Ecojustice.<sup>72</sup>

Thus, 94% of the final SARA recovery strategies developed by BC to date fail to identify critical habitat.<sup>73</sup> This compares to just 56% of such failures in SARA recovery strategies for species whose recovery planning was led or co-led by any other province.<sup>74</sup>

The pattern of refusing to identify known critical habitat continues. Consider the current draft recovery strategies that represent the most recent recovery planning work:

Fourteen (of the 58 total) BC-led recovery strategies are still in draft form and require further BC input. Many of these recovery strategies give detailed descriptions of all known locations of the species in BC. In fact, five of these recovery strategies give specific numbers of hectares and locations of habitat required for short-term survival of the species and describe a detailed method used to reach these numbers.<sup>75</sup> In the opinion of an Ecojustice conservation biologist who has examined these draft strategies, 13 of these 14 remaining strategies describe sufficient information about habitat to identify at least partial critical habitat.<sup>76</sup> But none of them do. Significantly, nine of them adopt verbatim phrases from the draft BC Direction to explain why critical habitat has not been identified.

**An Egregious Example: The Vancouver Island marmot**

Development of the recovery strategy for the Vancouver Island marmot provides a good example of how the provincial Direction to refuse to identify critical habitat is preventing proper development of a recovery strategy.

The Vancouver Island marmot is a housecat-sized ground squirrel native to the subalpine meadows and high-elevation forests of Vancouver Island. It is one of the most critically endangered species in BC, with a total global population of fewer than 70 wild animals,<sup>77</sup> plus 123 in a captive breeding program.<sup>78</sup> This animal is a true British Columbia icon. The official Olympic 2010 cyber mascot, Mukmuk, is based on the Vancouver Island marmot.

Yet even with this iconic status, the Province is failing to prepare the Vancouver Island marmot's Recovery Strategy properly—and is delaying identification of its critical habitat until the action plan stage.

The latest draft of the Vancouver Island Marmot Recovery Strategy parrots the Provincial Direction in its section on "Critical Habitat." As a result, the draft Strategy refuses to carry out the statutory requirement under *SARA* to ensure that the recovery strategy:

*must include...an identification of the species' critical habitat, to the extent possible, based on the best available information.*<sup>79</sup>

FOI documents reveal that recovery team members recognized that the Provincial Direction prevented them from identifying critical habitat in the Recovery Strategy. A copy of the December 2007 Draft Recovery Plan (with apparent comments from team

members) uses the Direction's suggested wording. It states "No critical habitat... is proposed for identification at this time." Next to this is an apparent response from a team member, stating:

*Copied from recommended and existing approaches to habitat protection to provide context as to why we will offer a definition of CH [Critical Habitat] in the action plan rather than the recovery strategy.*<sup>80</sup> [See Appendix A, p. 2]

However, federal law actually requires that the recovery strategy identify the known critical habitat "to the extent possible, based on the best available information." And the FOI documents show that it was clearly possible to identify at least some of the critical habitat for the marmot.

For example, one recovery team member commented:

*CH [Critical habitat] cannot be fully identified (which would perhaps include dispersal routes and potential habitat) but it seems as though a partial identification [of Critical Habitat] would be possible (presumably at least those sites with the extant populations).*<sup>81</sup> [See Appendix A, p. 3]

Clearly, the scientists know exactly where the few dozen remaining wild marmots currently live; every individual is closely followed by researchers. At the very least, there can be no doubt that their occupied burrows and surrounding foraging areas are critical habitat to the last few individuals on the planet. That raises the question of why at least the currently occupied areas utilized by these animals were not identified as critical habitat. Why was that obvious critical habitat not identified "to the extent possible, based on the best available information"?

The FOI documents indicate the answer to this question, from recovery team members:

- *From a very quick read, it seems like there are still some unresolved issues around SARA compliance...It is not clear from the text why currently occupied habitat couldn't be identified... I can't support sending a document to Director-level review that doesn't appear SARA compliant without a good rationale for it.*  
-- Lucy Reiss of Environment Canada (PYR) critiquing the December 2007 draft<sup>82</sup>

- *The government stripped out definitions of critical habitat, etc. Things keep changing. Definition of Critical Habitat is now in the Action Plan. -- Don Doyle, Recovery Team Chair, BC Ministry of Environment*<sup>83</sup>

Thus, the Provincial Direction improperly and indefinitely delayed protection that SARA requires at the recovery strategy stage. It put this protection off indefinitely, to the action plan stage. And it delayed this protection for the Vancouver Island marmot – one of the most treasured and most endangered of all BC species.

### **Other Examples**

#### *Garry Oak, Related Species and Spotted Owls*

Freedom of Information documents obtained from the BC government show that the critical habitat identification for the Garry Oak Woodlands, Garry Oak Maritime Meadows, Garry Oak Vernal Pools and Rigid Apple Moss recovery strategies was removed pursuant to the BC policy. An “Option Paper” prepared by federal and provincial government bureaucrats identified six options regarding the potential identification of critical habitat in the recovery documents.<sup>84</sup> Option 1 was chosen.<sup>85</sup> This option recommended that the recovery strategies defer proposing all critical habitat until the action planning stage. This option was applied although **the BC government knew the exact geospatial coordinates of occupied habitat** for numerous endangered Garry Oak plant species.<sup>86</sup>

Recovery planning documents state the following:

- *As mentioned to you, no UTM's [Universal Transverse Mercators – UTMs map specific locations]<sup>87</sup> are in the strategy – these have been removed.*<sup>88</sup>
- *I am making some changes to the GOE Recovery Strategies 9 based on editing requirements, public and government comments. The most substantial changes are around critical habitat – we agreed we would amend all the strategies to indicate the state of our knowledge around critical habitat but not propose any at this stage.*<sup>89</sup>
- *As Kari has forwarded this to you I would like to ask you for the BC response to the changes I made to the Vernal Pool strategy for Garry oak ecosystems . . . my perspective on where we are at with endorsement of these strategies is that all partners have had an opportunity to provide input on these. I presented the drafts at SARCC. SARCC flagged a few issues, key among these was the critical habitat sections. I presented an options paper (attached) on how to address critical habitat in these documents. Option 1 was chosen – do not propose critical habitat now but present our state of knowledge on the subject.*<sup>90</sup>

The BC government’s approach to not identify critical habitat was referenced repeatedly in different recovery strategy team emails:

- *What I would like to do is get a clearer picture of how Bruce has asked us to propose critical habitat, to help me think about how to approach this task. You have told the team that we have been instructed to provide a 'recipe' for identifying proposed CH, but not to identify specific areas spatially.<sup>91</sup>*
- *How is this? The strategy will describe, to the extent possible, biophysical aspects of critical habitat, but will not contain geographic locations or spatial attributes (map locations, or UTM's) of critical habitat.<sup>92</sup>*

Government records show the direction to not identify critical habitat applied to one of Canada's most endangered species: the Northern spotted owl:

*My fundamental concern is more strategic than these details. We have been directing recovery teams (CSORT included) that BC will not include critical habitat in recovery strategies.<sup>93</sup>*

The following are further examples of species for which critical habitat was known but not properly identified in BC-led recovery strategies for at-risk species.

#### *Mexican Mosquito Fern*

The draft Recovery Strategy for Mexican Mosquito Fern does not identify any critical habitat.<sup>94</sup> Habitat destruction is the key threat to the survival of the 8 remaining BC populations of this species. Already, three populations are known to be extirpated through habitat destruction. The locations of every known population of this species of small aquatic fern, based on recent (2007) data, are described in detail at page six of its recovery strategy, including detailed descriptions of the size and dimensions of each population, the name of each site and some specific descriptions of its location, and, for most sites, the BC Conservation Data Centre's reference number for the site, which corresponds to the known exact geographic location of the site. The recovery strategy for Mexican Mosquito Fern contains the following statements, taken verbatim from the BC direction to recovery teams:

*It is expected that critical habitat will be proposed within a recovery action plan following: (1) consultation and development of stewardship options with affected landowners and organizations, and (2) completion of outstanding work required to quantify specific habitat and area requirements for these species.<sup>95</sup>*

The information clearly exists to identify at least partial critical habitat for the Mexican Mosquito Fern in BC: the locations of all or most extant populations are well known, based on very recent data. Yet despite the ongoing threats habitat loss poses to this species' survival, no critical habitat is identified in BC's recovery strategy for this species.

#### *Rigid Apple Moss*

The final provincial Recovery Strategy for the Rigid Apple Moss does not identify critical habitat.<sup>96</sup> This species is threatened primarily by habitat loss and degradation. The recovery strategy includes a map that shows the plant is found in just three locations on Vancouver Island and Lasqueti Island. The recovery strategy describes in detail individual patches that have been counted and measured, down to areas as small as 0.5 square centimetres, indicating scientists know exactly where the rare plants are growing. But the Recovery Strategy for the Rigid Apple Moss states:

*While much is known about the habitat needs of the species included within this recovery strategy, more definitive work must be completed before any specific sites can be formally proposed as critical habitat. It is expected that critical habitat will be proposed within one or more recovery action plans following: (1) consultation and development of stewardship options with affected landowners and organizations, and (2) completion of outstanding work required to quantify specific habitat and area requirements for these species.<sup>97</sup>*

This statement is taken verbatim from the BC Direction to recovery teams.

#### *Mormon Metalmark Butterfly*

The draft recovery strategy for the Mormon Metalmark, southern mountain population is another instance in which critical habitat is not identified.<sup>98</sup> This butterfly species is threatened primarily by habitat loss and degradation. There is very little habitat remaining for the Mormon Metalmark, and according to the recovery strategy, what remains is unprotected:

*The Southern Mountain population is > 2000 individuals, confined to approximately 15 ha of unsecured habitat, and appears to be isolated from the closest known populations, in the United States.<sup>99</sup>*

The recovery strategy describes a small number of known locations of Mormon Metalmark populations and reports the spatial area of these locations. The strategy's recovery goal calls for a specific quantity of habitat to be protected: 13.5ha, out of the existing 15ha of occupied habitat. The information clearly exists with which to identify which 13.5ha to designate as critical habitat. With only 15ha of habitat in total, finding the appropriate 90% of this habitat cannot be a difficult scientific task. However, this recovery strategy reiterates the BC Direction as well, stating:

*No critical habitat, as defined under the federal Species at Risk Act [S.2], is proposed for identification at this time. While much is known about the habitat needs of the Mormon Metalmark, more definitive work must be completed before any specific sites can be formally proposed as critical habitat.<sup>100</sup>*

*Night Snake*

The draft recovery strategy for the endangered Night Snake does not identify critical habitat either.<sup>101</sup> The main threat facing this species is loss and degradation of its habitat. The recovery strategy states:

*It is necessary to maintain the species in the short-term while knowledge gaps are addressed. Short-term habitat protection targets to maintain the species are presented in the objectives below.....These targets are believed to be necessary to support the species in the short-term....*<sup>102</sup>

As you can see, the recovery strategy clearly states that to maintain the Night Snake in Canada in the short term – let alone the long term – immediate habitat protection is needed. The recovery strategy goes on to describe (at page seven) in some detail a method already developed and implemented by the recovery team to determine the habitat that must compose the “short-term habitat protection targets” believed necessary to maintain this species in the immediate future. The recovery strategy describes the exact size in hectares, specific location, and precise layout of habitat that is necessary. Yet in its critical habitat section, the recovery strategy for Night Snake states:

*No critical habitat, as defined under the federal Species at Risk Act [S. 2], is proposed at this time. While some is known about the habitat needs of the Night Snake, more definitive work must be completed before any specific sites can be formally proposed as critical habitat.*<sup>103</sup>

As described in the recovery strategy, a map of the exact location and layout of habitat necessary for the immediate survival of the Night Snake exists. In other words, from a scientific perspective, partial critical habitat for the Night Snake has clearly been identified and is known to the BC government. Yet from a legal perspective the critical habitat of the Night Snake has not been identified. The delay in formally identifying known critical habitat for the Night Snake jeopardizes the survival of this species in Canada.

The cases above are just a few examples of BC-led recovery strategies that fail to identify critical habitat when it appears scientifically possible to do so. As you can see, the provincial government appears to be routinely refusing to identify and protect the critical habitat for at-risk species, as required by *SARA*, and as it has committed to do. An audit is required, to determine how the BC Government can change its procedures to better protect these Crown resources and better live up to its commitment to protect and recover species at risk.

## **Legal Jurisdiction for the Auditor General to Act**

Threatened and endangered species are of extraordinary value to British Columbians. As trustee of these vital public resources, Government is obligated to ensure that they are not unnecessarily lost or degraded. Government's apparent failure to properly identify and protect critical habitat is a failure to steward a key public resource. It is a failure to operate "economically, efficiently and effectively," as per s. 11(8) of the *Auditor General Act*.

Furthermore, pursuant to s. 13 of the *Auditor General Act* it is clearly "in the public interest" for the Auditor General to determine whether irreplaceable public resources are being wasted and lost due to government's failure to identify and protect at-risk species and their habitat. This is particularly true because the refusal to identify critical habitat is contrary to both the provincial government's legal duties under the *Species at Risk Act* and its commitments under federal-provincial agreements, including the *Canada-British Columbia Agreement on Species at Risk* and the *Accord for the Protection of Species at Risk*.

There are precedents for such an audit. In 1998, the Auditor General audited British Columbia's drinking water and asked whether that resource was being adequately protected by the crown. Thus, the office of the Auditor General has in the past recognized the economic importance of resource protection and has acted accordingly.<sup>104</sup>

## **Conclusion**

Endangered and threatened species are irreplaceable public resources. The Province has committed to conserving such species. Yet Government is apparently instructing staff and recovery teams to routinely refuse to identify the critical habitat of this resource as required by:

- the *Canada-British Columbia Agreement on Species at Risk*, the *Accord for the Protection of Species at Risk*, and the *Species at Risk Act*; and
- Government's inherent responsibility to manage and conserve an irreplaceable economic, social and environmental public resource.

We urge the Auditor General to conduct an examination of this systematic refusal of the British Columbia Ministry of Environment to properly identify critical habitat for endangered species, pursuant to sections 11 and 13 of the *Auditor General Act*.

John Doyle, Auditor General

November 25, 2008

Page 24

Yours truly,



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Calvin Sandborn  
Barrister and Solicitor



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Devon Page  
Barrister and Solicitor



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Tim Thielmann  
Articled Student

*"Hart Shouldice"*

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Hart Shouldice  
Law Student

Enclosures

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<sup>1</sup> The Wilderness Committee is the largest membership-based, citizen-funded wilderness preservation organization in Canada. It is a registered non-profit that works to protect wilderness areas by educating the public through door-to-door canvassing educational

publications, rallies and events, and the media. The Wilderness Committee sees to support this educational mission with a strong research and mapping program, strategic alliances with other environmental groups, First Nations and community leaders, and regular expeditions into threatened wilderness areas.

<sup>2</sup> Section 2 of the *Species at Risk Act* S.C. 2002, c. 29 defines critical habitat as: "the habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species' critical habitat in the recovery strategy or in an action plan for the species."

<sup>3</sup> See the *Canada-British Columbia Agreement on Species at Risk*, [http://www.sararegistry.gc.ca/sar/permit/administrative\\_e.cfm](http://www.sararegistry.gc.ca/sar/permit/administrative_e.cfm). See also the *National Accord for the Protection of Species at Risk* signed by the federal, provincial and territorial governments of Canada, [http://www.sararegistry.gc.ca/approach/strategy/Accord\\_e.pdf](http://www.sararegistry.gc.ca/approach/strategy/Accord_e.pdf). Finally, see *Species at Risk Act*, S.C. 2002, c. 29.

<sup>4</sup> B.C. Ministry of Environment. 2007. *Environmental Trends in British Columbia: 2007. State of Environment Reporting*. Victoria, B.C. Accessed October 20 2008 at:

[www.env.gov.bc.ca/soe/et07/07\\_species\\_conserv/threats.html](http://www.env.gov.bc.ca/soe/et07/07_species_conserv/threats.html) A November 2006 article in *Bioscience*, found that habitat loss and degradation is the primary threat facing 84% of 488 Canadian species then assessed by COSEWIC to be at risk. Venter, O., N.N. Brodeur, L. Nemiroff, B. Belland, I.J. Dolinsek and J.W.A. Grant. 2006, "Threats to endangered species in Canada," *BioScience* 56: 903-910.

<sup>5</sup> Pursuant to s. 13 of the *Auditor General Act* SBC 2003, c. 2.

<sup>6</sup> Moola, F., D. Page, and L. Coulter. 2007. "Waiting for the Ark: the need for endangered species legislation in British Columbia, Canada." *Biodiversity*. 8(1): 3-11.

<sup>7</sup> SARA Public Registry, "A to Z Species Index", Government of Canada website [http://www.sararegistry.gc.ca/sar/index/default\\_e.cfm](http://www.sararegistry.gc.ca/sar/index/default_e.cfm), accessed October 1, 2008.

<sup>8</sup> "Austin, M.A., D.A. Buffett, D.J. Nicolson, G.G.E. Scudder and V. Stevens (eds.). 2008. *Taking Nature's Pulse: The Status of Biodiversity in British Columbia*. Biodiversity BC, Victoria, BC. 268 pp. Available at: [www.biodiversitybc.org](http://www.biodiversitybc.org). Because many taxonomic groups, such as insects, have not been thoroughly assessed, and many species' status is unknown, these numbers are certainly underestimates.

<sup>9</sup> The text of the Convention is available at: <http://www.cbd.int/convention/convention.shtml>.

<sup>10</sup> The US *Endangered Species Act* (1973) similarly acknowledges the values inherent in endangered species: "these [endangered] species of fish, wildlife, and plants are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people." See s. 2(a)(3), at: <http://www.fws.gov/endangered/ESA/sec2.html>

<sup>11</sup> British Columbia contains 76% of the bird species; 70% of the freshwater species, 66% of the butterfly species; 60% of the conifer species and 56% of the fern species found in all of Canada. Ministry of Environment, Environmental Stewardship Division. Available here: <http://www.env.gov.bc.ca/wld/bio.htm>.

<sup>12</sup> Endangered species cannot be conserved without protecting their associated habitat. As the Preamble of SARA states: "...the habitat of species at risk is key to their conservation."

<sup>13</sup> The governors of the five New England states have officially recognized open space as a key element in the quality of life that brought rapid economic growth and a booming tourism industry to the region. See *Report of the Governors' Committee on the Environment* (1988), as discussed in Brabec, "Land Ethics,".

<sup>14</sup> Department of Environmental Conservation, *Conserving Open Space in New York State, 1994, New York state Draft Open Space Conservation Plan and Draft Generic Environmental Impact Statement* (Albany, 1994), p. 21.

<sup>15</sup> Tapan Munroe, "Quality of Life Factors in Siting Decisions,' speech delivered by Pacific Gas and Electric Company official at the Critical Issues Conference, University of Pacific, March 3, 1989.

<sup>16</sup> About the same number expressed concern for the loss and extinction of plants and animals in British Columbia: 86.2% supported protection of species at risk; 83.7% supported recovery; 81.4% were concerned for loss and extinction of animals; and 76.9% were concerned for loss and extinction of plants. Harshaw, H.W. 2008. *British Columbia Species at Risk Public Opinion Survey 2008: Final technical report*. Vancouver, BC: University of British Columbia Collaborative for Advanced Landscape Planning, p. 40-41. Available at: [http://www.sar-pos.ca/SaR-POS\\_reports.html](http://www.sar-pos.ca/SaR-POS_reports.html)

<sup>17</sup> Harshaw, p. 70-71.

<sup>18</sup> "Species at Risk Public Opinion Survey for the Metro Vancouver and Fraser Valley Regional Districts." March 2007. Commissioned by the South Coast Conservation Program. Conducted by Synovate Research. Available at: <http://www.sccp.ca/>

<sup>19</sup> Such as housing and commercial development.

<sup>20</sup> In addition, two-thirds of those surveyed felt that governments should do more to conserve wildlife and habitats on private lands. "Species at Risk Public Opinion Survey for the Metro Vancouver and Fraser Valley Regional Districts." March 2007. Commissioned by the South Coast Conservation Program. Conducted by Synovate Research. Available at: <http://www.sccp.ca/> The total sample of 1,394 is accurate to within +/-2.6%, nineteen times out of twenty. On the GVRD sample of 966, the results are accurate to within +/-3.2% and on the Fraser Valley sample of 428, the results are accurate to within +/-4.7%, both at nineteen times out of twenty.

<sup>21</sup> Sandborn, Calvin. 1990. "Endangered Species and Biological Diversity." In Canadian Bar Association, British Columbia Branch, *Law Reform for Sustainable Development in British Columbia*. BC: Sustainable Development Committee of the CBA-BC, p. 60.

<sup>22</sup> Duncan Knowler and Kristen Dust, *The Economics of Protecting Old Growth Forest: An Analysis of Spotted Owl Habitat in the Fraser Timber Supply Area of British Columbia. Final Report*. School of Resource and Environmental Management, Simon Fraser University, Burnaby, British Columbia. June 2007.

<sup>23</sup> Ibid.

<sup>24</sup> It has been estimated that 43% of endangered and threatened wildlife in North America rely directly or indirectly upon wetlands at some stage of their lives. Audubon International Fact Sheet, *Wildlife and Habitat Management*, p. 3 <http://www.auduboninternational.org/e-Source/pdfs/BC-Surveying%20the%20Diversity%20of%20North%20America.pdf>

<sup>25</sup> Nancy Olewiler, *The Value of Natural Capital in Settled Areas of Canada*, Ducks Unlimited Canada and the Nature Conservancy, 2004, p. 3. Available at: [www.ducks.ca/aboutduc/news/archives/pdf/ncapital.pdf](http://www.ducks.ca/aboutduc/news/archives/pdf/ncapital.pdf)

<sup>26</sup> Olewiler, p. 24.

<sup>27</sup> Daily, Gretchen and Katherine Ellison, 2002, "The New Economy of Nature", Orion magazine. A BC government publication has stated: "Retaining natural wetlands can avoid the ironic situation where, after decades of draining and filling wetlands, communities are having to build expensive artificial wetlands to fulfill the pollution-cleansing and hydrological functions of the original wetlands." McPhee, M., P. Ward, J. Kirkby, et. al. 2000. Sensitive Ecosystems Inventory: East Vancouver Island and Gulf Islands, 1993-1997. Volume 2: Conservation Manual, as quoted in *The HAT Manual*, Victoria, 2004, p.10.

<sup>28</sup> These values are taken from Table 1 of the Appendix in Heimlich, R.E., Wiebe, K.D., Claassen, R.D., Gadsby, D., and R.M. House. 1998. Wetlands and agriculture: Private interests and public benefits. Agricultural Economics Report No. 765, U.S. Department of Agriculture, Economic Research Services, AER-765. Cited in: Olewiler, Nancy. *The Value of Natural Capital in Settled Areas of Canada*, Ducks Unlimited Canada and the Nature Conservancy, 2004, footnote 22. Available at: [www.ducks.ca/aboutduc/news/archives/pdf/ncapital.pdf](http://www.ducks.ca/aboutduc/news/archives/pdf/ncapital.pdf) The G8 Ministers of Environment have issued a declaration emphasizing the need to protect natural areas in order to sustain human water supplies: "If we fail to protect forests and wetlands, if we do not manage soils with precaution, water will disappear. We can build all the water pipes and treatment plants we want; there will be nothing to drain or clean." -- Statement adopted by the Ministerial Declaration Environmental Meeting of the G7/G8 Countries, April, 2003. Cited in the *Environmental News Network*, June 11, 2003.

<sup>29</sup> For example, see the recently announced two billion dollar carbon capture and storage fund established by the Province of Alberta. See "Ed Stelmach: Alberta is taking action on climate change." July 18, 2008, *National Post*. Available at:

<http://network.nationalpost.com/np/blogs/fullcomment/archive/2008/07/18/ed-stelmach-alberta-is-taking-action-on-climate-change.aspx>

<sup>30</sup> As Olewiler writes, "there are many goods and services only natural capital can provide – there are no substitutes." Some forms of natural capital are clearly essential – atmospheric stabilization and the water cycle, for example. Other examples include nutrient cycling, which includes many animal and plant species and provides the service of nitrogen fixation, and fuels nitrogen/phosphorus nutrient cycles. Predator control of prey species is a service that allows for biological regulation of the pest population. Olewiler, p. 3-4.

<sup>31</sup> [Austin, M.A., \*Taking Nature's Pulse\*, pp. 174-192](#)

<sup>32</sup> J. A. Burnett *et al.*, *On the Brink: Endangered Species in Canada*, Environment Canada. 1989, pp. 6 and 13.

<sup>33</sup> Government of British Columbia, Ministry of Environment, Lands, and Parks. "Sea Otter" No date. Available at: <http://wlapwww.gov.bc.ca/wld/documents/otter.pdf>.

<sup>34</sup> This decline is due to habitat loss from urbanization, excess pesticides, and increased disease outbreaks exacerbated by industrial agricultural management. Moola *et al.*, 2007, *Rich Wildlife Poor Protection*, Vancouver: David Suzuki Foundation and Sierra Legal, p. 4. Available at: [http://www.davidsuzuki.org/Publications/Rich\\_wildlife\\_poor\\_protection.asp](http://www.davidsuzuki.org/Publications/Rich_wildlife_poor_protection.asp).

<sup>35</sup> Among other small birds and mammals.

<sup>36</sup> Tang, J., Wice, J., Thomas, V., and P. Kevan. 2007. Assessment of Canadian federal and provincial legislation's capacity to conserve native and managed pollinators. *Int. J. Biodiversity Science and Management*. 3(1): 46-55.

<sup>37</sup> All of which could end up being listed under SARA, once fully assessed.

<sup>38</sup> This decline is due to habitat loss from urbanization, excess pesticides, and increased disease outbreaks exacerbated by industrial agricultural management. Moola *et al.*, 2007, *Rich Wildlife Poor Protection*, Vancouver: David Suzuki Foundation and Sierra Legal, p. 4.

<sup>39</sup> The American Council on Environmental Quality has emphasized the importance of this issue: "Employment of the Earth's reservoir of biological diversity to increase [food] yields and develop new and pest-resistant crops is essential to the billions of humans that need to be fed." Cited in: Versteeg, Hajo. "The Protection of Endangered Species: A Canadian Perspective," *Ecology Law Quarterly*, [1984], p. 271.

<sup>40</sup> According to the United Nations, more than 850 million people don't have enough food to eat. [www.commondreams.org/headlines06/1020-01.htm](http://www.commondreams.org/headlines06/1020-01.htm)

<sup>41</sup> The American Council on Environmental Quality has emphasized the importance of this issue: "Employment of the Earth's reservoir of biological diversity to increase [food] yields and develop new and pest-resistant crops is essential to the billions of humans that need to be fed." Cited in: Versteeg, Hajo. "The Protection of Endangered Species: A Canadian Perspective," *Ecology Law Quarterly*, [1984], p. 271.

<sup>42</sup> Extracted from the tree's bark, taxol has been shown to bring recovery from or remission of ovarian cancer in 30% of women treated with it after conventional treatments have failed. See Sandborn, Calvin (ed). *Law Reform for Sustainable Development*. British Columbia: Canadian Bar Association (British Columbia Branch). (1990), and Sandborn, Calvin, "We Won't Know What We've Got Till It's Gone", *The Vancouver Sun*, 1991 and Versteeg, Hajo. "The Protection of Endangered Species: A Canadian Perspective," *Ecology Law Quarterly*, [1984], p. 271

<sup>43</sup> National Cancer Institute. *Summary Report*. Division of Cancer Treatment, October 1, 1988 – September 30, 1989. Former US Senator Jim Buckley has addressed this issue: "What value would we have placed on the cowpox virus before Jenner, or on a penicillin mold before Fleming, or on a wild rubber tree before Goodyear? Yet the life of every American, and of practically every

citizen of the world, is different because of these species." Karen Day Boylan "How Americans Value Wildlife". *Endangered Species Bulletin*. March 1998. FindArticles.com. 31 Jul. 2008.

[http://findarticles.com/p/articles/mi\\_m0ASV/is\\_1998\\_March/ai\\_54023079](http://findarticles.com/p/articles/mi_m0ASV/is_1998_March/ai_54023079)

<sup>44</sup> By providing suitable material for tires.

<sup>45</sup> The *BC Wildlife Act*, *Ministry of the Environment Act*, and the *Forest and Range Practices Act* are the three pieces of legislation in BC that touch on environmental concerns, yet none address the issue of the protection of habitat for species at risk. Moola et al., 2007, *Rich Wildlife Poor Protection*, Vancouver: David Suzuki Foundation and Sierra Legal, p. 6. There are some important ramifications of BC's failure to enact stand-alone endangered species legislation. The division of jurisdictional powers in Canada creates 'jurisdictional cracks' that numerous at-risk species have fallen through.

<sup>46</sup> SARA, s. 10.

<sup>47</sup> SARA, s. 42. (1): "Subject to subsection (2), the competent minister must include a proposed recovery strategy in the public registry within one year after the wildlife species is listed, in the case of a wildlife species listed as an endangered species, and within two years after the species is listed, in the case of a wildlife species listed as a threatened species or an extirpated species. (2) With respect to wildlife species that are set out in Schedule 1 on the day section 27 comes into force, the competent minister must include a proposed recovery strategy in the public registry within three years after that day, in the case of a wildlife species listed as an endangered species, and within four years after that day, in the case of a wildlife species listed as a threatened species or an extirpated species."

<sup>48</sup> Note that the Provincial government is not following this approach mandated by SARA. Instead, it has issued directions to biologists to not identify critical habitat when the recovery team issues a Recovery Strategy for a species. The Province directs the scientists to delay the identification of critical habitat until after socio-economic factors have been considered (presumably at the later Action Plan stage).

<sup>49</sup> The following table indicates how responsibility is typically determined

<u>Species Type</u>	<u>Lead Agency</u>
Marine species	Fisheries and Oceans Canada
Freshwater fish	Fisheries and Oceans Canada & BC Ministry of Environment
Most terrestrial species	BC Ministry of Environment
Species predominantly on/in lands/waters administered by Parks Canada (National Parks, Historic Sites and Marine Conservation Areas)	Parks Canada Agency
<b>Migratory birds</b>	Environment Canada

"Recovery Planning in British Columbia," Environmental Stewardship Division, BC Ministry of Environment website: <http://www.env.gov.bc.ca/wld/recoveryplans/rcvry1.htm>

While the BC Ministry of Environment is not the lead agency in recovery planning for SARA-listed species under federal jurisdiction, it is the lead agency on the majority of SARA-listed species that fall within the political boundaries of the province. In addition, BC MoE representatives sit on most if not all recovery teams for species whose recovery planning is led by a federal agency. Thus the positive or negative impact of many BC government policies and activities are felt by federal and provincial species alike.

<sup>50</sup> *Canada-British Columbia Agreement on Species at Risk*, [http://www.sararegistry.gc.ca/sar/permit/administrative\\_e.cfm](http://www.sararegistry.gc.ca/sar/permit/administrative_e.cfm). Emphasis added. *The Accord for Protection of Species at Risk* [at “We Agree to”, (iii)(f)] also emphasizes that B.C. will “provide for the development of recovery plans within one year for endangered species and two years for threatened species that address the identified threats to the species and its habitat” and that their programs will “emphasize preventive measures to keep species from becoming at risk.” [http://www.sararegistry.gc.ca/approach/strategy/accord\\_e.pdf](http://www.sararegistry.gc.ca/approach/strategy/accord_e.pdf).

<sup>51</sup> SARA, s.41(1)(c). Emphasis added.

<sup>52</sup> SARA, s. 2.

<sup>53</sup> *Canada-British Columbia Agreement*, *supra* at s.2.4. Note that recovery strategies must *identify* critical habitat to the extent possible even if a species’ recovery is ultimately deemed not to be technically feasible. See section s. 41(2) of SARA.

<sup>54</sup> In defining what must be in an action plan, the Act states that an evaluation of socio-economic costs and benefits must be in the action plan (s. 49(1) (e)). In contrast, no mention of socio-economic costs and benefits is included in the prescribed contents of a recovery strategy. Applying the statutory interpretation doctrine of *expressio unius est exclusion alterius*, socio-economic analysis is not contemplated for the recovery strategy.

<sup>55</sup> FOI document, “National Guidelines for Completing Recovery Strategy Templates.” Draft, February 7, 2006, p. 12. See Appendix C. Also available at: [http://www.ecojustice.ca/media-centre/media-release-files/BCmoe\\_dec2007.pdf](http://www.ecojustice.ca/media-centre/media-release-files/BCmoe_dec2007.pdf).

<sup>56</sup> SARA, s. 41. (1) If the competent minister determines that the recovery of the listed wildlife species is feasible, the recovery strategy must address the threats to the survival of the species identified by COSEWIC, including any loss of habitat, and must include ...

(c) an identification of the species’ critical habitat, to the extent possible, based on the best available information, including the information provided by COSEWIC, and examples of activities that are likely to result in its destruction;

<sup>57</sup> National Guidelines, p. 12. Emphasis added. See Appendix C.

<sup>58</sup> National Guidelines, p. 12. Emphasis added. See Appendix C.

<sup>59</sup> FOI documents, February 23, 2006 email from Kari Nelson, Ministry of Environment. See Appendix B, p. 17. In her email, Nelson says: “I think the most simple solution in the short term (until we have the provincial policy work completed) is simply to tell the teams that because of uncertainty with respect to provincial policy for spatial identification of critical habitat, and federal policy for legal identification of critical habitat, provincial recovery strategies should not

contain spatially explicit identification of critical habitat. ... As I mentioned, if your recovery teams have a terms of reference, they are required to follow provincial guidance for the preparation of strategies, *and this is current provincial guidance.*" Emphasis added.

<sup>60</sup> SARA, s.41(1)(c). Emphasis added.

<sup>61</sup> *National Accord for the Protection of Species At Risk*,

[http://www.sararegistry.gc.ca/approach/strategy/Accord\\_e.pdf](http://www.sararegistry.gc.ca/approach/strategy/Accord_e.pdf).

<sup>62</sup> FOI Document. "Letter of Instruction to Recovery Teams", June 6, 2007. See Appendix B, p. 21.

<sup>63</sup> Furthermore, the Direction is contrary to the "National Guidelines for Completing Recovery Strategy Templates", which states that recovery strategy statements should not be generalized. The Direction, however, instructs recovery team members to "describe attributes of habitat only" – a highly generalized and vague statement. See National Guidelines, p. 2: "Lack of full knowledge of a species is a common thread for most recovery strategies. This should not act as an impediment to developing a well-constructed strategy, however the level of certainty with which statements are made should be reflected in the language of the text. This is not an indication that statements should be generalized or vague, but that the level of certainty be indicated or eluded to."

<sup>64</sup> SARA, s. 58(1) Subject to this section, no person shall destroy any part of the critical habitat of any listed endangered species or of any listed threatened species... [located on federal lands].

<sup>65</sup> SARA, s. 61(1) No person shall destroy any part of the critical habitat of a listed endangered species or a listed threatened species that is in a province or territory and that is not part of federal lands.

<sup>66</sup> See s. 58. The Minister is required to post this description within 90 days after the proposed critical habitat is recorded in the public registry. It is difficult to see how the Minister can fulfill this obligation if there are no geospatial coordinates of the critical habitat to describe.

<sup>67</sup> Sections 58 and 61 require the Minister to determine whether critical habitat is "legally protected" (S. 58) or "effectively protected" (S. 61) or not in various situations, and to make a recommendation to the Governor in Council to apply SARA protective measures if a gap in protection exists.

<sup>68</sup> See s. 62: A competent minister may enter into an agreement with any government in Canada, organization or person to acquire any lands or interests in land for the purpose of protecting the critical habitat of any species at risk.

<sup>69</sup> See s. 63: If in the opinion of the Minister any portion of the critical habitat of a listed wildlife species remains unprotected 180 days after the recovery strategy or action plan that identified the critical habitat was included in the public registry, the Minister must include in that registry a report on the steps taken to protect the critical habitat. The Minister must continue to report with respect to every subsequent period of 180 days until the portion is protected or is no longer identified as critical habitat.

<sup>70</sup> SARA, s. 42. (1) Subject to subsection (2), the competent minister must include a proposed recovery strategy in the public registry within one year after the wildlife species is listed, in the

case of a wildlife species listed as an endangered species, and within two years after the species is listed, in the case of a wildlife species listed as a threatened species or an extirpated species.

(2) With respect to wildlife species that are set out in Schedule 1 on the day section 27 comes into force, the competent minister must include a proposed recovery strategy in the public registry within three years after that day, in the case of a wildlife species listed as an endangered species, and within four years after that day, in the case of a wildlife species listed as a threatened species or an extirpated species.

<sup>71</sup> As far as we know, the Banff Springs Snail is the only species that has an Action Plan.

<sup>72</sup> Government of Canada, (2008-02-01). Recovery Strategies. Retrieved November 9, 2008, from Species at Risk Public Registry Web site:

[http://www.sararegistry.gc.ca/sar/recovery/timelines\\_e.cfm](http://www.sararegistry.gc.ca/sar/recovery/timelines_e.cfm)

<sup>73</sup> Of the 32 species with final SARA recovery strategies, BC identified critical habitat for only two species (6%).

<sup>74</sup> Government of Canada, (2008-02-01). Recovery Strategies. Retrieved November 9, 2008, from Species at Risk Public Registry Web site:

[http://www.sararegistry.gc.ca/sar/recovery/timelines\\_e.cfm](http://www.sararegistry.gc.ca/sar/recovery/timelines_e.cfm)

<sup>75</sup> These recovery strategies are currently listed on the BC Ministry of Environment's "Recovery Planning in British Columbia" web site: <http://www.env.gov.bc.ca/wld/recoveryplans/rcvry1.htm> Accessed November 14, 2008.

<sup>76</sup> These recovery strategies are currently listed on the BC Ministry of Environment's "Recovery Planning in British Columbia" web site: <http://www.env.gov.bc.ca/wld/recoveryplans/rcvry1.htm> Accessed November 14, 2008.

<sup>77</sup> The Vancouver Island Marmot Recovery Foundation. "Endangered Marmots Return to BC's First Park." Media Release. August 9, 2007. Available at:

[http://www.marmots.org/press.php?subaction=showfull&id=1188320314&archive=&start\\_from=&ucat=1&](http://www.marmots.org/press.php?subaction=showfull&id=1188320314&archive=&start_from=&ucat=1&) .

<sup>78</sup> Vancouver Island Marmot Recovery Team. 2007. Recovery Strategy for the Vancouver Island Marmot (*Marmota vancouverensis*) in British Columbia. Prepared for the B.C. Ministry of Environment, Victoria, BC 23pp. Draft 2007 (with comments), p. 1. See Appendix A, p. 1.

<sup>79</sup> SARA, s.41(1)(c). Emphasis in the text is the author's.

<sup>80</sup> Vancouver Island Marmot Recovery Team. 2007. Recovery Strategy for the Vancouver Island Marmot (*Marmota vancouverensis*) in British Columbia. Prepared for the B.C. Ministry of Environment, Victoria, BC 23pp. Draft 2007 (with comments), p. 17, Comment [JB6]. See Appendix A, p. 2.

<sup>81</sup> Bryant, A. A. 2006. National Recovery Strategy for the Vancouver Island Marmot (*Marmola vancouverensis*) Third Draft, 8 March 2006 (with comments), p. 14, Comment LR 17. See Appendix A, p.3.

<sup>82</sup> FOI document, December 10, 2007 email from Lucy Reis to Jeff Brown, Ministry of Environment. See Appendix B, p.18.

<sup>83</sup> FOI document, Don Doyle, Recovery Team Chair, BC Ministry of Environment, (date unknown). See Appendix B, p. 19.

<sup>84</sup> FOI Document. Options for Revision of Critical Habitat Sections of Garry Oak Ecosystems Recovery Strategies. Prepared by Brian Reader, Species at Risk Ecologist, Parks Canada. 9/3/2008. See Appendix B, p. 4.

<sup>85</sup> FOI Document. Email Discussion Re: Critical Habitat for Garry Oak and Option 1. See Appendix B, p. 8. See also: FOI Document. Email from Myke Chutter. August 12, 2004. Appendix B, p. 13.

<sup>86</sup> FOI Document. Table 8. Proposed survival habitat for species in the Recovery Strategy. See Appendix B, p. 6. This FOI document included geospatial critical habitat coordinates, which were later removed from the final strategy.

<sup>87</sup> The Universal Transverse Mercator (UTM) coordinate system is a grid-based method of identifying locations on the Earth's surface.

<sup>88</sup> FOI Document. Email from Brenda Costanza to Kari Nelson. January 5, 2006. See Appendix B, p. 3.

<sup>89</sup> FOI Document. Email from Brian Reader to BC Ministry of Environment employees. November 21, 2005. See Appendix B, p. 11.

<sup>90</sup> FOI Document. Email from Brian Reader to Ministry of Environment staff. November 28, 2005. See Appendix B, p. 12.

<sup>91</sup> FOI Document. Comment by David Cunnington, Canadian Wildlife Service. February 20, 2004. See Appendix B, p. 14.

<sup>92</sup> FOI Document. Email from Keri Nelson, BC Ministry of Environment Employee. March 23, 2006. See Appendix D.

<sup>93</sup> FOI Document. Email from Sean Sharpe, BC Government employee. August 11, 2006. See Appendix B, p. 15.

<sup>94</sup> Southern Interior Rare Plants Recovery Team. 2008. Recovery Strategy for the Mexican Mosquito Fern (*Azolla mexicana*) in British Columbia. Prepared for the B.C. Ministry of Environment, Victoria, BC. 16 pp.  
[http://www.env.gov.bc.ca/wld/documents/recovery/rcvrystrat/mexican\\_mosquito\\_fern\\_rcvry\\_strat240708.pdf](http://www.env.gov.bc.ca/wld/documents/recovery/rcvrystrat/mexican_mosquito_fern_rcvry_strat240708.pdf). Accessed November 9, 2008.

<sup>95</sup> Recovery Strategy for the Mexican Mosquito Fern, above, at p. 13.

<sup>96</sup> British Columbia Bryophyte Recovery Team and Garry Oak Ecosystems Recovery Team. 2007. Recovery strategy for the Rigid Apple Moss (*Bartramia stricta* Bridel) in British Columbia. Prepared for the B.C. Ministry of Environment, Victoria, BC. 20pp.  
[http://www.env.gov.bc.ca/wld/documents/recovery/rcvrystrat/bartramia\\_stric\\_rcvry\\_strat\\_010807.pdf](http://www.env.gov.bc.ca/wld/documents/recovery/rcvrystrat/bartramia_stric_rcvry_strat_010807.pdf) Accessed November 9, 2008.

<sup>97</sup> Recovery Strategy for the Rigid Apple Moss, above, at p. 16.

<sup>98</sup> Southern Interior Invertebrates Recovery Team. 2008. Recovery Strategy for the Mormon Metalmark (*Apodemia mormo*), Southern Mountain Population in British Columbia. Prepared for

the B.C. Ministry of Environment, Victoria, BC. 14 pp.

[http://www.env.gov.bc.ca/wld/documents/recovery/rcvrystrat/mormon\\_metalmark\\_rcvry\\_strat\\_220208.pdf](http://www.env.gov.bc.ca/wld/documents/recovery/rcvrystrat/mormon_metalmark_rcvry_strat_220208.pdf) Accessed November 9, 2008.

<sup>99</sup> Recovery Strategy for the Mormon Metalmark, above, at p. iv.

<sup>100</sup> Recovery Strategy for the Mormon Metalmark, above, at p. 11.

<sup>101</sup> Southern Interior Reptile and Amphibian Recovery Team. 2008. Recovery strategy for the Night Snake (*Hypsiglena torquata*) in British Columbia. Prepared for the B.C. Ministry of Environment, Victoria, BC. 13 pp.

[http://www.env.gov.bc.ca/wld/documents/recovery/rcvrystrat/nightsnake\\_rcvry\\_strat\\_130208.pdf](http://www.env.gov.bc.ca/wld/documents/recovery/rcvrystrat/nightsnake_rcvry_strat_130208.pdf) Accessed November 11, 2008.

<sup>102</sup> Recovery strategy for the Night Snake, above, at p. 7.

<sup>103</sup> Recovery strategy for the Night Snake, above, at p. 9.

<sup>104</sup> See Office of the Auditor General of British Columbia, 1998/1999 Report, *Protecting Drinking Water Sources*. Available at: <http://www.bcauditor.com/PUBS/1998-99/report-5/water.pdf>.

## Appendix A

### Draft Recovery Strategies Obtained through Freedom of Information Requests

- Vancouver Island Marmot Recovery Team. 2007. Recovery Strategy for the Vancouver Island Marmot (*Marmota vancouverensis*) in British Columbia. Prepared for the B.C. Ministry of Environment, Victoria, BC 23pp. Draft 2007 (with comments), p. 1. 1
- Vancouver Island Marmot Recovery Team. 2007. Recovery Strategy for the Vancouver Island Marmot (*Marmota vancouverensis*) in British Columbia. Prepared for the B.C. Ministry of Environment, Victoria, BC 23pp. Draft 2007 (with comments), p. 17, Comment [JB6]. 2
- Bryant, A. A. 2006. National Recovery Strategy for the Vancouver Island Marmot (*Marmota vancouverensis*) Third Draft, 8 March 2006 (with comments), p. 14, Comment LR 17. 3

## BACKGROUND

### Species Assessment Information from COSEWIC

**Date of Assessment:** May 2000

**Common Name (population):** Vancouver Island Marmot

**Scientific Name:** *Marmota vancouverensis*

**COSEWIC Status:** Endangered

**Reason for Designation:** A rare mammal endemic to Vancouver Island, reduced to less than 20 mature animals. The population has declined by at least 50% in the past 10 years.

**Canadian Occurrence:** British Columbia

**COSEWIC Status History:** Designated Endangered in April 1978. Status re-examined and confirmed Endangered in April 1997 and in May 2000. Last assessment based on an existing status report with an addendum.

### Description of the Species

The Vancouver Island Marmot (*Marmota vancouverensis*) is a housecat-sized ground squirrel that is endemic to the mountains of Vancouver Island, British Columbia (Nagorsen 1987). Like all 14 currently recognized species of marmots, the Vancouver Island Marmot lives in burrows, feeds primarily on grasses and forbs, and hibernates during winter (Barash 1989). The species is closely related to the Hoary Marmot (*Marmota caligata*) and the Olympic Marmot (*M. olympus*; (Kruckenhauser et al. 1999; Stepan et al. 1999), although it is distinct in its chocolate brown fur colour (Nagorsen 1987), skull morphology (Cardini et al. 2005), behaviour and vocalizations (Heard 1977; Blumstein 1999).

As is the case for most alpine-dwelling marmots, Vancouver Island Marmots take several years to become sexually mature, can live for a decade or more, and display a high level of social complexity (Bryant 1996; Blumstein 1999). Their natural habitat consists of subalpine meadows, generally located between 1050 and 1400 m above sea level (Bryant and Janz 1996). Colonies tend to be small compared to other species, with most containing one or a few family groups and fewer than a dozen adults (Bryant 1998).

### Populations and Distribution

The global and Canadian distribution of the Vancouver Island Marmot is confined to Vancouver Island, British Columbia. Fewer than 160 animals were known to be alive in late 2005, including 123 in captivity (Recovery Team minutes, 2 Nov. 2005).

4. Social behaviour (grooming, nose-greeting, and sleeping behaviour).
5. Antipredator behaviour (whistling or retreat into burrows when approached).
6. Timing of hibernation (compared to wild marmots).
7. Survival rate during hibernation (compared to wild marmots).
8. Site-fidelity and appropriate social behaviour in subsequent spring.
9. Successful reproduction in subsequent years.

## Critical Habitat

### Identification of the species' critical habitat

No critical habitat, as defined under the federal *Species at Risk Act* [S.2], is proposed for identification at this time. It is anticipated that critical habitat for the Vancouver Island Marmot will be identified in the action plan(s) as appropriate. Because of the relative lack of direct development threats to natural subalpine meadows, and the potential habitat found in Strathcona Provincial Park, the Recovery Team believes that additional legal protection of habitats is not necessary at this time.

Marmot habitats are relatively easy to identify (see habitat and biological needs section), however, further work is necessary before critical habitat can be identified. A simple model based on GIS was successful in identifying most of the historically occupied habitat in natural subalpine meadows (J. Lewis, University of Calgary, pers. comm.). The model included elevation (900–1400 m), slope (30–60°), aspect (135–270°), no snow in July, herbaceous cover, and proximity to cliffs (<400 m). Additional work is needed to apply this model to areas on central and northern Vancouver Island, and this will be provided as a separate habitat supply analysis when funding becomes available.

### Recommended schedule of studies to identify critical habitat

The primary need is to expand Lewis's (in prep.) terrain and remote-sensing approach to mapping potential marmot habitat on central and northern Vancouver Island. If suitable satellite imagery, funding, and personnel can be found, this should be accomplished by late 2008

1. expand and complete terrain and remote-sensing model (in progress). 2008
2. identify and map areas of potential critical habitat on the landscape based on habitat models (in progress). 2008
3. consult with affected land owners/managers 2008/2009
4. develop definition of CH for action plan – 2009

### Existing and Recommended Approaches to Habitat Protection

Some of the historically occupied habitat is protected within Strathcona Provincial Park (see Figure 1). Other habitats are protected under the *B.C. Ecological Reserves Act* within the Haley Lake Ecological Reserve (recently expanded to 926 ha) and under the *B.C. Wildlife Act* at the Green Mountain Critical Wildlife Management Area (300 ha). Because of the relative lack of direct development threats to natural subalpine meadows, and the potential habitat found in Strathcona Provincial Park, the Recovery Team believes that additional legal protection of habitats is not necessary at this time.

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Comment [J86]: Copied from recommended and existing approaches to habitat protection to provide context as to why we will offer a definition of CH in the action plan rather than the recovery strategy

Comment [J87]: Is it possible to expand on this section. E.g. lay out each step required to provide the identification of CH in the action plan with approximate dates attached? e.g. 1. expand and complete terrain and remote-sensing model. 2007 2. identify and map areas of potential critical habitat on the landscape based on habitat models. 2008 3. consult with affected land owners/managers 2008. 4. develop definition of CH for action plan – 2008. Seeing how 2007 is gone I would make 1-3 2008 with 4 being 2009. That would be more realistic

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the largest ski-hill operations in British Columbia, with over 300,000 skier-visits in 2001 (P. Gibson, General Manager, MWAR, pers. com.). Marmots on Mount Washington live in patches of natural meadow and in ski-runs; burrows are occasionally constructed under man-made objects such as concrete ski-lift foundations. No negative impacts are known as a result of recreation activities, although the possibility exists (Dearden and Hall 1983).

### 3 Critical habitat

#### a) Species' critical habitat (to be provided separately)

Suggestions to begin the text if CH is being partially identified (see federal CH Guidelines for details):

Critical habitat (proposed) for the Vancouver Island marmot includes:

(list the habitat characteristics that are critical and a description of where it is located)

Additional habitat will be required to meet the recovery goals for this species, but cannot be defined at this time. Information is lacking in the following areas: (list). A complete identification of critical habitat for Vancouver Island Marmot will be completed by (date), as part of an action plan(s) (see section x Schedule of Studies).

Suggestions for text if CH is not being identified at all:

It is not possible to identify critical habitat at this time, due to the following knowledge gaps and/or technical limitations:

The Schedule of Studies, included in Section X below, outlines the additional research and analysis required to address the knowledge gaps and/or technical limitations that prevent complete identification of critical habitat in this recovery strategy. The scope and timelines in this schedule of studies are believed to be realistic and achievable, and are expected to result in an accurate proposal for critical habitat identification in an action plan.

The critical habitat for Vancouver Island marmots includes an indeterminate number of sub-alpine meadows distributed in three broad areas on Vancouver Island (Janz et al. 2000). In some cases historical records make it straightforward to map potential reintroduction sites (e.g., Bryant and Janz 1996, Bryant 1996). However in other cases the suitability of habitats remains unclear. Routledge and Merilees (1980) ranked the apparent suitability of 89 mountains that they searched, describing 12 mountains as "excellent" and a further 21 as providing "moderate" habitat conditions for marmots. Bryant (1993) mapped potential reintroduction sites in Strathcona Provincial Park, and Demarchi et al. (1995) conducted a detailed biophysical analysis of four potential sites.

Potential marmot habitats are generally restricted to the Coastal Western Hemlock and Mountain Hemlock biogeoclimatic zones of the Georgia Depression Ecoprovince (Demarchi et al. 1990). The region lies in the leeward rain shadow of the Vancouver Island Mountains, and is consequently dryer than are sites to the west of that mountain range. The climate is subarctic, with precipitation falling as rain or snow depending on elevation, and with temperatures moderated depending on proximity to the sea (Klinka

**Comment [LR16]:** This section remains unclear. Please provide a clear statement as to: if a proposal for CH identification is being provided or not, and if not, when and how CH will be proposed, keeping in mind that CH can be identified incrementally. See also comments on schedule of studies section.

Note, it is the federal minister that ultimately identifies CH, but teams are asked to provide their advice on what the technical description of the habitat required for the survival and recovery of the species may be.

**Comment [LR17]:** Do you mean "potential" habitat? If you do mean critical habitat, then it appears from the description that CH cannot be fully identified (which would perhaps include dispersal routes & potential habitat); but it seems as though a partial identification would be possible (presumably at least those sites with the extant populations).

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**Comment [LR18]:** TH: are these proposed as CH?

**Comment [LR19]:** Some of this detail may be more appropriate under the discussion about habitat needs (and some is redundant)

## Appendix B

### Documents Obtained through FOI Requests

Email from Brenda Costanza to Kari Nelson. January 5, 2006. See Appendix B, attached.	1
Options for Revision of Critical Habitat Sections of Garry Oak Ecosystems Recovery Strategies.	4
Table 8. Proposed survival habitat for species in the Recovery Strategy.	6
Email Discussion Re: Critical Habitat for Garry Oak and Option 1.	8
Email from Brian Reader to BC Ministry of Environment employees. November 21, 2005.	11
Email from Brian Reader to Ministry of Environment staff. November 28, 2005.	12
Email from Myke Chutter. August 12, 2004.	13
Comment by David Cunnington, Canadian Wildlife Service. February 20, 2004.	14
Email from Sean Sharpe, BC Government employee. August 11, 2006.	15
Email from Kari Nelson. Feb 23, 2006.	17
Email from Lucy Reis to Jeff Brown, Ministry of Environment. December 10, 2007.	18
Don Doyle, Recovery Team Chair, BC Ministry of Environment, (date unknown).	19
Letter of Instruction to Recovery Team Chairs	20

## **Nelson, Kari ENV:EX**

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**From:** Costanzo, Brenda ENV:EX  
**Sent:** Thu, January 5, 2006 4:20 PM  
**To:** Nelson, Kari ENV:EX  
**Cc:** Lea, Ted ENV:EX; Costanzo, Brenda ENV:EX  
**Subject:** RE: Criteria for review of strategies?

**Attachments:** Maritime meadow Dec. 19 edits from province on Nov 30 05 BR draft no cover.doc

Kari: Here's the nutshell version of Ted and my conversation with Rod on Dec. 21 re: the GOERT strategies. I am cc'ing Ted so he can correct any errors I've made.

1. Rod wanted the definition of "protection" changed slightly – here's how it was used and the new version (see Executive Summary for these). Anything in yellow highlight is the subtle changes we've made to these:

a) **Under Recovery Goals/Objectives:**

"Establish protection for existing populations through stewardship and other mechanisms."

b) **Under Strategic Approaches:**

"1. Habitat protection<sup>1</sup>"

<sup>1</sup>This may involve protection in any form including stewardship agreements and conservation covenants on private lands, land use designations on crown lands, and protection in federal, provincial and local government protected areas.

2. Stewardship approach has to be clear throughout, so we've added it to sections (see sections below in the Executive Summary), and would include in approaches and he suggested a line such as "Need to prepare BMPs to support landowners in stewardship activities (e.g. control of invasive species, sourcing/availability of native plants etc.)" when suggest 'restoration'.
3. Here's a new Stewardship Section (from the Executive Summary):

### **Stewardship Approach**

For successful implementation in protecting species at risk there will be a strong need to engage in stewardship on a variety of land tenures, and in particular on private land and on Indian Reserves. Stewardship involves the voluntary cooperation of landowners to protect Species at Risk and the ecosystems they rely on. It is recognized in the Preamble to the federal *Species at Risk Act* (SARA) that "stewardship activities contributing to the conservation of wildlife species and their habitat should be supported" and that "all Canadians have a role to play in the conservation of wildlife in this country, including the prevention of wildlife species from becoming extirpated or extinct". It is recognized in the Bilateral Agreement on Species at Risk, between British Columbia and Canada that:

"Stewardship by land and water owners and users is fundamental to preventing species from becoming at risk and in protecting and recovering species that are at risk" and that "Cooperative, voluntary measures are the first approach to securing the protection and recovery of species at risk".

And in the body of the document, this paragraph has been added below the one above:

### **Stewardship Approach for Private Lands**

Since many species of risk occur only or predominantly on private lands, including some of the species in this strategy, stewardship efforts will be the key to their conservation and recovery. It is

recognized that to successfully protect many species at risk in British Columbia there will have to be voluntary initiatives by landowners to help maintain areas of natural ecosystems that support these species of risk. This stewardship approach will cover many different kinds of activities, such as: following guidelines or best management practices to support species at risk; voluntarily protecting important areas of habitat on private property; conservation covenants on property titles; ecogifting part or all of their property to protect certain ecosystems or species at risk; or to sell their property for conservation. For example, both government and non-governmental organizations have had good success in conserving lands in the Province. This could be aided by the B.C. Trust for Public Lands.

4. Socioeconomic section – rewritten as below – this is from the Maritime Meadow, so the sectors affected will be different in each (again, from the Executive Summary section):

#### **Social and economic considerations**

Recovery of species at risk and restoration of imperiled habitats associated with Garry oak ecosystems will contribute to biodiversity, health and functioning of the environment and enhance opportunities for appreciation of such special places and species thereby contributing to overall social value in southwestern British Columbia. The natural beauty of Garry oak ecosystems in the lower mainland, Gulf Islands and Vancouver Island are an important resource for British Columbians that provide for a robust tourism and recreation industry. Protecting these natural spaces, biodiversity and recreation values has enormous value to the local economy.

Recovery actions could potentially affect the following socioeconomic sectors: recreation; private land development; operations and maintenance activities. The expected magnitude of these effects is expected to be low in almost all cases. (Brian had taken this out, and Rod wanted it back in).

Another example of stewardship integration into the document:

#### **2.4.1. Maritime meadow ecosystems goals and objectives**

In order to prevent further declines, protect using stewardship and other mechanisms, moderate to high quality maritime meadow ecosystems, in association with moderate to high quality adjacent matrix. The connectivity of maritime meadow habitat should be maintained to allow dispersal, movement of pollinators, and limit invasion by exotic species. Most areas with maritime meadow habitat have not been identified or mapped, and this will be required in order to identify potential habitat for translocations and to re-establish new populations.

5. Rod did not like the use of the word "all" in the goals/objectives section (see page 29 in the Maritime Meadow section for the deletions of the word "all"; also page 36 under CH, and page 38 with respect to objectives in Table 8).

#### **Recovery goal for maritime meadow ecosystems**

Protect and restore moderate to high quality maritime meadow ecosystems and the adjacent matrix habitat throughout the geographic range.

#### **Recovery objectives for maritime meadow ecosystems**

1. Protect using stewardship and other mechanisms, moderate to high quality locations with maritime meadow habitat in 5-10 years.
2. Engage the cooperation of owners or managers of land critical for species conservation and recovery within 5 years.
3. Determine habitat responses to restoration and to refine restoration targets in 5-10 years.

4. Develop and implement appropriate management plans for maritime meadows and buffers to address invasive species and restore ecosystem processes in 5-10 years.

## 2.2 Critical Habitat

No critical habitat, as defined under the federal Species at Risk Act [s2], is proposed for identification at this time.

While much is known about the habitat needs of the species included within this recovery strategy, more definitive work must be completed before any specific sites can be formally proposed as critical habitat. It is expected that critical habitat will be proposed within one or more recovery action plans following: 1) consultation and development of stewardship options with affected landowners and organizations and 2) completion of outstanding work required to quantify specific habitat and area requirements for these species. A schedule of studies outlining work necessary to identify critical habitat is found below (Section 2.2.4).

6. Rod is concerned about how the identification of Critical Habitat will implicate private land use (including First Nations). The intent needs to be clear in all strategies regarding the RAP and identification of CH:
  - a. CH identification needs to respect private interests and property rights vest in the land;
  - b. CH identification will require extensive consultation which will form the basis of the stewardship approach.
7. Consultation as outlined by Rod:
  - a. Need peer review (confidential) regarding policy and science by experts (either within/outside BC)
  - b. Need a concurrent, or subsequent sending of the strategy to any FN with potential interest in the species
  - c. Public consultation will be the federal posting of the document for public comment (no need for broad public consultation if it will be posted for comment).
8. As mentioned to you, no UTM's are in the strategy – these have been removed.
9. He suggested that there be some guidelines written by staff that he would give advice on in order to build a workshop for recovery teams to incorporate these into their strategies. His advice would be with respect to the view of the Minister and the general political view regarding recovery planning.
10. Rod wanted to know where we are at with the other 9 species, so he can sign the letter of support for the GOERT species. He wants to know:
  - a. Who is taking the responsibility to deliver (e.g. my question is about *Bartramia stricta* as Brian asked about this for Jan. submission);
  - b. Who holds the copyright/moral rights
  - c. Has there has been consultation
  - d. Has there has been a peer review.

Ted did a summary of this which you were copied on Nov. 17 "Re: Plants cover note for Jan 1 due SARA species". Still the ugly issue of who owns the *Lupinus rivularis* copyright, and who will do FN consultation (Ted has suggested regions should do the latter).

11. Rod asked that any reference to the Wildlife Amendment Act, the Community Charter, and Ecological Reserves Act be removed – we had it in under Habitat Protection at the advice of previous reviewers... (see page 36 Table 9).
12. I've sent the strategies to Brian (also to Rod and Sean) and advised him to seek the advice from Rod/Sean as to whether he can go ahead with posting (this was assuming he can make the changes we've suggested).
13. Here's the Maritime Meadow strategy with the changes we made highlighted in yellow (the initial yellow highlights in the front end are the fed's) – there will also be comment bubbles highlighted in yellow where we have deleted/added things.



Maritime meadow  
Dec. 19 edits ...

## Options for Revision of Critical Habitat Sections of Garry Oak Ecosystems Recovery Strategies

Prepared By  
Brian Reader  
Species at Risk Ecologist  
Parks Canada Agency

Four draft recovery strategies have been prepared for:

Garry Oak Woodlands  
Maritime Meadows  
Vernal Pools  
Rigid Apple Moss

Work is well advanced on these drafts and the first round of public consultation has been completed. Public input received to date will not result in substantial change to these drafts. Translation is almost complete, SARA Compliance checks have been done, and final reports on public consultation and aboriginal involvement have been completed. A Strategic Environmental Assessment has been conducted. Getting the recovery strategies to this stage of development has involved the commitment of many individuals and agencies. We are well-positioned to meet the January deadline for posting of these recovery strategies for a second round of public comment on the SARA Public Registry.

**There have been no substantial issues raised by the public or stakeholders and this is an opportunity for both governments to show substantial progress on the recovery of 21 SARA species at risk and the recovery of imperilled habitats in British Columbia.**

Final comment recently received by Canadian Wildlife Service suggests modification to the critical habitat sections of the drafts.

Recommended Options for Addressing Critical Habitat Revisions:

1. **Defer proposing critical habitat to the Action Planning stage.** Leave as much background information as possible on known sites of importance and clearly identify the steps needed to complete our work on defining critical habitat. This will include the development of a comprehensive landowner contact program.
2. **Remove information on critical habitat currently in the draft recovery strategies.** Defer proposing critical habitat to the Action Planning stage. Keep this data for internal use. Clearly identify the steps needed to complete our work on defining critical habitat. This will include the development of a comprehensive landowner contact program.
3. **Defer proposing critical habitat to the Action Planning stage except for cases where critical habitat is well understood and landowners are aware of and supportive of the critical habitat provisions (for example if a species has only one or two occurrences on federal land).** Leave as much background information as possible on known sites of importance and clearly identify the steps needed to complete our work on defining remaining critical habitat. This will include the development of a comprehensive landowner contact program.
4. **Defer proposing critical habitat to the Action Planning stage except for cases where critical habitat is well understood and landowners are aware of and supportive of the critical habitat provisions (for example if a species has only one or two occurrences on federal land).** Remove other references to critical habitat currently in the draft recovery strategies. Keep this data for internal use. Clearly identify the steps needed to complete our work on defining remaining critical habitat. This will include the development of a comprehensive landowner contact program.
5. **Propose critical habitat for those sites identified as survival habitat.** Revise critical habitat wording to be more precise as suggested by CWS. Propose critical habitat for sites currently identified as recovery habitat in a subsequent Action Plan.
6. **Status Quo**

critical habitat identified



Table 8. Proposed survival habitat for species in the Recovery Strategy.

SPECIES	SITE	LAND STATUS	UTM COORDINATES <sup>1</sup>		LEVEL OF PROTECTION
			Easting	Northing	
bog bird's-foot trefoil	The wetland complex, including riparian zones, at Woodley Range Ecological Reserve	Ecoreserve	043930 043932	543072 543063	Effectively protected by the <i>Ecological Reserves Act</i>
	The complex of seeps and vernal wet depressions at Harewood Plains, together with their associated micro-catchments	Private	04299-302 (several localities)	54431-3 (several localities)	No protection
		Private	04312-5 (several localities)	54416-26 (several localities)	No protection; working with Cascadia Forest Products and BC Transmission Corp.
bog bird's-foot trefoil	All occupied sites near Extension and White Rapids Rds. currently under threat of extirpation due to residential development and/or all-terrain vehicle traffic	Private	0431-0432 (several localities)	5438-5440 (several localities)	No protection
tall woolly-heads	The entire vernal pool-vernal swale complex in central Uplands Park and associated micro-catchments	District of Oak Bay (municipal park)	04779 (several localities)	53654 (several localities)	Limited protection; working with District of Oak Bay
	The vernal pool complex at Cattle Point (Uplands Park) and associated micro-catchments	District of Oak Bay (municipal park)	0478385	5365044	Limited protection; working with District of Oak Bay

\* critical habitat coordinates accidentally left in FOI. Just 2 pages out of the hundreds I received had these coordinates left in.

	The shore of Soменов Marsh adjacent to Soменов Garry Oak Protected Area, along with any hydrologic processes (e.g., annual flooding cycles) required to sustain tall woolly-heads at this site	District of North Cowichan and Nature Trust of BC; traditional territory of Cowichan Tribes (under negotiation)	044866	540438	Limited protection; working with District of North Cowichan, Cowichan Tribes, The Nature Trust of BC, and BC Parks
	The occupied vernal pool site at Christmas Hill	District of Saanich (nature sanctuary)	047219	536896	Limited protection; working with District of Saanich
Kellogg's rush	The main vernal pool-vernal swale complex at Uplands Park and associated micro-catchments	District of Oak Bay (municipal park)	047784	536545	Limited protection; working with District of Oak Bay
water plantain-buttercup	The occupied vernal swale at Uplands Park and associated micro-catchments	District of Oak Bay (municipal park)	047787	536534	Limited protection; working with District of Oak Bay
	The occupied vernal pool at Uplands Park and associated micro-catchments	District of Oak Bay (municipal park)	047762	536535	Limited protection; working with District of Oak Bay
	The two occupied vernal pools/seeps on Ballenas Island and their associated micro-catchments	Department of National Defence	041669 041677	546544 546525	Limited protection; working with DND
rosy-owl clover	The occupied vernal pool/seep at Trial Island and its associated micro-catchment	Ecoreserve	047728	536057	Effectively protected by the <i>Ecological Reserves Act</i>
Dwarf sandwort	The occupied vernal seep at Rocky Point and its associated micro-catchment	Department of National Defence	045649	535097	Limited protection; working with DND

Grid zone 10 U, NAD 83

Costanzo, Brenda ENV:EX

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Subject: FW: FW: Vernal Pools Strategy re. Critical Habitat

-----Original Message-----

From: Nelson, Karl ENV:EX  
Sent: November 25, 2005 9:42 AM  
To: Sharpe, Sean T ENV:EX; Lea, Ted ENV:EX  
Subject: RE: FW: Vernal Pools Strategy re. Critical Habitat

SARCC didn't get into a discussion of critical habitat at their last meeting. I thought that we were going to stick with descriptions only also - I think the concern stems from the uncertainty that still exists regarding how this information will be used.

-----Original Message-----

From: Sharpe, Sean T ENV:EX  
Sent: November 25, 2005 8:38 AM  
To: Lea, Ted ENV:EX  
Cc: Nelson, Karl ENV:EX  
Subject: RE: FW: Vernal Pools Strategy re. Critical Habitat

It's a good improvement in the wording. It seems to be clear regarding the concept of critical habitat (i.e. deferring identifying it until more survey and consultation is completed). I think the terms occupied and potential habitat are more consistent with the BC approach.

The only concern might be the UTM locations of occupied habitat - someone might infer from that automatic protection is required. In other strategies, we've tried to stick with descriptions of the habitat needs.

I'm cc'ing Karl to ask if this is consistent with her understanding of what was discussed at SARCC.

Sean Sharpe, R.P.Bio., M.Sc.  
Manager, Terrestrial Ecosystems Science Section  
Ecosystems Branch, Environmental Stewardship Division  
Ministry of Environment  
2975 Jutland Rd, 4th Floor, Victoria, BC V8W 9M1  
tel: (250) 387-1577 or 953-4159  
cell: (250) 888-0723  
fax: (250) 356-9145  
email Sean.Sharpe@gov.bc.ca

-----Original Message-----

From: Lea, Ted ENV:EX  
Sent: November 24, 2005 11:29 AM  
To: Sharpe, Sean T ENV:EX  
Cc: Costanzo, Brenda ENV:EX  
Subject: FW: FW: Vernal Pools Strategy re. Critical Habitat

Sean

Response from Brian - are you okay with what he is recommending??

Ted

-----Original Message-----

From: brian.reader@pc.gc.ca [mailto:brian.reader@pc.gc.ca]

1

Sent: November 23, 2005 4:11 PM  
To: Lea, Ted ENV:EX; Nelson, Kari ENV:EX  
Subject: Re: FW: Vernal Pools Strategy re. Critical Habitat

I guess the first thing is that the 3 multispecies strategies are NCC documents for which Parks Canada will get the rights so BC has less need (I think) to 'approve' or endorse them if we post them with a suitable note from BC regarding their position on them (such as they applauded the work of GOVMT and feel the information compiled and strategic direction will benefit one of Canada's most imperilled ecosystems....)

Option 1 was

1. Defer proposing critical habitat to the Action Planning stage. Leave as much background information as possible on known sites of importance and clearly identify the steps needed to complete our work on defining critical habitat. This will include the development of a comprehensive landowner contact program.

The changes I made are consistent with this. I purposely kept the terms survival and recovery habitat as these were terms I thought BC wanted or was comfortable with. (One reviewer has suggested changing these to occupied and potential habitat - thoughts??) My intent is that all the compiled information would be kept in the documents. UTM's for occurrences would be equivalent to what the CDC has would it not and doesn't necessarily equate to critical habitat?

I think the text makes it clear that while we have some knowledge of habitat requirements and where these things occur more work needs to be completed before we are prepared to make a proposal for designation as critical habitat.

"While much is known about the habitat needs for survival and recovery of the species included within this recovery strategy more definitive work remains to be completed before proposing specific sites for protection as critical habitat. Critical habitat will be proposed within one or more subsequent action plans following completion of outstanding work required to define proposed critical habitat areas for these species. Notwithstanding the above, information on the current state of knowledge on the survival and recovery habitat needs of the species included within this recovery strategy are provided below."

I don't know if this answers your question other than to let you know that I think it is OK as written as I penned it and I think it is consistent with what was decided at SARCC.

Brian

"Lea, Ted ENV:EX"  
<Ted.Lea@gov.bc.ca>  
<brian.reader@pc.gc.ca>  
a>

To: "brian.reader@pc.gc.ca"  
cc:  
Subject: FW: Vernal Pools Strategy re.

Critical Habitat

11/23/2005 02:44  
PM

Brian

I will let you answer this - what is the intent of these tables - just occupied habitat, or are the tables coming out? 

Thanks,

Ted

-----Original Message-----

From: Nelson, Kari ENV:EX  
Sent: November 23, 2005 1:47 PM  
To: Lea, Ted ENV:EX; Costanzo, Brenda ENV:EX; Sharpe, Sean T ENV:EX  
Subject: FW: Vernal Pools Strategy re. Critical Habitat

Perhaps we are not really involved in this anymore (as GOERT is moving them forward), but I'm a bit confused.

Does identification (with UTM coordinates) of "occupied habitat" essentially put us in the same place as identification of proposed "critical habitat"???

Is this consistent with the "Option 1" approach put forward by Brian (deferring identification of CH to the action plan)???

Is this consistent with what we are doing for other species???

Just want to make sure that a) we are consistent and b) whatever we do doesn't jeopardize moving forward.

-----Original Message-----

From: Kent.Prior@pc.gc.ca [mailto:Kent.Prior@pc.gc.ca]  
Sent: November 23, 2005 1:14 PM  
To: Kent.Prior@pc.gc.ca  
Cc: brian.reader@pc.gc.ca; Nelson, Kari ENV:EX; Kevin.Fort@ec.gc.ca; Lindsay.Rodger@pc.gc.ca; Lucy.Reiss@ec.gc.ca; Maryse.Mahy@pc.gc.ca; pippa.shepherd@pc.gc.ca; Trish.Hayes@ec.gc.ca; Wendy.Dunford@ec.gc.ca  
Subject: Re: Vernal Pools Strategy re. Critical Habitat

(See attached file: Vernal\_Pool\_Critical\_Habitat\_KPrior\_Edits+Comments.doc)

Brian -

My quick take on the sections pertaining to 'critical habitat'. I've revised text and tables directly and added comments throughout. Let me know if you wish to discuss.

Best, Kent

-----  
Kent Prior  
Senior Advisor, Critical Habitat  
Parks Canada  
25 Eddy St, 4th floor (25-4-S - office 433)  
Gatineau, Quebec K1A 0M5

t - 619-997-4932  
e - kent.prior@pc.gc.ca

(See attached file: Vernal\_Pool\_Critical\_Habitat\_KPrior\_Edits+Comments.doc) 

Nelson, Kari ENV:EX

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From: brian.reader@pc.gc.ca  
Sent: Mon, November 21, 2005 3:49 PM  
To: Stsharpe@smithers.env.gov.bc.ca  
Cc: Costenzo, Brenda ENV:EX; Lea, Ted ENV:EX; Nelson, Kari ENV:EX  
Subject: rights transfer form

Attachments: rights for apple moss from BC Nov 21 05.doc



rights for apple  
moss from BC ...

Hi Sean:

I am attaching a form for providing Canada with the rights to use and modify the Rigid Apple Moss strategy.

(See attached file: rights for apple moss from BC Nov 21 05.doc)

Providing these rights to Canada was flagged as an issue at the SARCC meeting by Rod Davis.

Can you run this up the line to see if this form is acceptable and who could sign off on it.

I am making some changes to the GOE Recovery Strategies (based on editing requirements, public and government comments. The most substantial changes are around critical habitat - we agreed we would amend all the strategies to indicate the state of our knowledge around critical habitat but not propose any at this stage. We will identify the work that needs to be done before proposing critical habitat in the subsequent recovery action plans: such as the development of a comprehensive landowner contact program). I hope to have this done soon.

Thanks,

Brian Reader  
Species at Risk Ecologist  
Western and Northern Service Centre  
Parks Canada Agency  
2nd floor, 711 Broughton Street  
Victoria, BC V8W 1E2  
e-mail: brian.reader@pc.gc.ca  
Phone: 250-363-8560  
Cell: 250-883-9645

Costanzo, Brenda ENV:EX

From: brian.reader@pc.gc.ca  
Sent: November 28, 2005 10:31 AM  
To: Nelson, Kari ENV:EX; Stsharpe@smithers.env.gov.bc.ca  
Cc: steve.langdon@pc.gc.ca; Lea, Ted ENV:EX; Costanzo, Brenda ENV:EX  
Subject: Re: FW: Vernal Pools Strategy Revisions



Options for Vernal Pool Nov 22  
Revision of CH Sec. 05 BR draft...

Hi Sean:

As Kari has forwarded this to you I would like to ask you for the BC response to the changes I made to the Vernal Pool strategy for Garry oak ecosystems (the changes to the critical habitat sections show up in track changes). If acceptable I will make similar changes around critical habitat to the other 3 Garry oak strategies.

My perspective on where we are at with endorsement of these strategies is that all partners have had an opportunity to provide input on these. I presented the drafts at SARCC. SARCC flagged a few issues, key among these was the critical habitat sections. I presented an options paper (attached) on how to address critical habitat in these documents. Option 1 was chosen:

- Do not propose critical habitat now but present our state of knowledge on the subject.

A few issues that Rod raised have also been addressed in the revision.

There is no signature page so no signature is required from BC. We hope to send these to the Minister with a note from the Province outlining their perspective on the documents or post a note on the SARA Public Registry that would help define BC's take on the documents (such as BC supports the work of the recovery team and feels these strategies will be beneficial for imperiled ecosystems and species at risk in BC). Providing copy and moral rights to Canada. I have copy and moral rights to the three multi-species recovery strategies. So only the Rigid Apple Moss is owned by BC at the moment. copy and moral rights can be provided to Canada on the form I provided last week or we can leave this one behind for now (it is due later in 2006).

I must get concurrence from Parks Canada, Environment Canada and BC on these drafts for posting on the registry for public comment. I would like a response in the next couple of days as the timeline for getting these approved and posted on the SARA Registry by January 12, 2006 is tight. Once I get some concurrence I can finish revising all four strategies and present this to SARCC on December 7.

I have heard back from Environment Canada. The comments are mixed and I would like to go over them on the phone with you.

(See attached file: Options for Revision of CH Sections Nov 15 05.doc)

Thanks,

Brian Reader  
Species at Risk Ecologist  
Western and Northern Service Centre  
Parks Canada Agency  
2nd floor, 711 Broughton Street  
Victoria, BC V8W 1E2  
e-mail: brian.reader@pc.gc.ca  
Phone: 250-363-8560  
Cell: 250-883-9645

1

**Cottam, Nick ENV:EX**

**From:** Chutter, Myke WLAP:EX  
**Sent:** Thu, August 12, 2004 3:48 PM  
**To:** 'Cunnington,David [PYR]'; Chutter, Myke ENV:EX  
**Cc:** 'Wayne\_Wall@interfor.com'; 'harestad@sfu.ca'; 'dbonin@gvrd.bc.ca'; Heppner, Don FOR:EX; Blackburn, Ian ENV:EX; 'BUCHAJBB@dfw.wa.gov'; Surgenor, John ENV:EX; 'Johnathon Stamp'; 'kym.welstead@forrex.org'; Kiss, Les FOR:IN; Williams, Liz J ILMB:EX; Waterhouse, Louise FOR:EX; Trish Hayes  
**Subject:** RE: Recipe for proposed SPOW CH

I guess its cryptically hidden in the statement: SORT action plan - there is a need for some flexibility.

NB: Bruce didn't give instructions on how we approach CH, rather on how we approach the "implementable" part of the habitat action plan. He expounded more on it in person, and during discussions we had in HQ. He said government wouldn't likely accept an action plan from SORT that was spatially a "fait accompli". They'd want to have the final say on how much and where habitat was to be protected, i.e., where to put the boundary lines on the map.

To me, CH and the habitat action plan are inextricably linked as CH is defined as a combination of suitable habitat needed for both Survival and Recovery habitat in order to meet the Recovery Team's goal as laid out in the Strategy. This gets back to our discussion regarding the difference between description and prescription. I think we are able to describe suitable CH in terms of the types of parameters we've agreed to in the model (including species range, different ecotypes/BGZs, tree age and height, elevation, etc. That's the easy part. But prescribing exactly where to put it on the landbase, how far apart, etc, that's more difficult and the part where we create the "recipe" rules for gov't to apply. It was me who suggested the best way to do this was to put it in the CH section of the action plan including:

- a) the spatial part we defined in the RS (active territories) as the base
- b) the descriptions of suitable habitat as per the model
- c) rules for how to meet the recovery goal by prescribing where to put it, how much, connectivity issues, priority areas, etc.

It just seemed a logical way to approach the issue. The action plan also contains an action required by gov't to prepare the final habitat plan in accordance with our direction within a year. I hope that clarifies it better.

Cheers, Myke

Michael J. Chutter, RPBio  
 Provincial Bird Specialist  
 B.C. Biodiversity Branch,  
 Ministry of Water, Land and Air Protection  
 PO Box 9338 Stn Prov Govt, Victoria, BC, V8T 5J9  
 Ph: (250)367-9797; FAX (250)356-9145  
 E-mail: <<Myke.Chutter@gems7.gov.bc.ca>>

-----Original Message-----

**From:** Cunnington,David [PYR] [mailto:David.Cunnington@ec.gc.ca]  
**Sent:** August 12, 2004 12:17 PM  
**To:** Chutter, Myke WLAP:EX  
**Cc:** Wayne\_Wall@interfor.com; harestad@sfu.ca; David Cunnington (Cunnington,David [PYR]); dbonin@gvrd.bc.ca; Heppner, Don FOR:EX; Blackburn, Ian WLAP:EX; BUCHAJBB@dfw.wa.gov; Surgenor, John WLAP:EX; Johnathon Stamp; kym.welstead@forrex.org; Kiss, Les FOR:IN; Williams, Liz SRM:EX; Waterhouse, Louise FOR:EX; Chutter, Myke WLAP:EX; Trish Hayes  
**Subject:** Recipe for proposed SPOW CH

Hi Myke - I checked the minutes of the Feb 26 SORT meeting and there was no mention of Bruce giving SORT instructions on how to approach CH - neither is there mention in my notes or Trish's. I've attached the minutes for convenience:

<<SORT Minutes 19 final Feb 20th 2004 .doc>>

What I would like to do is get a clearer picture of how Bruce has asked us to proposed critical habitat, to help me think about how to approach this task. You have told the team that we have been instructed to provide a "recipe" for identifying proposed CH, but not to identify specific areas spatially. Is it possible for us to get clearer instructions, to aid us in figuring out how to approach this? It doesn't need to be detailed - just something to work from - it's our duty to figure this out in detail, not Bruce's. Perhaps you could simply forward the relevant text in the email you mentioned. Thanks very much for you help . . .

Dave

David Cunningham  
Endangered Species Biologist  
Canadian Wildlife Service  
5421 Roberson Rd, RR# 1,  
Delta, BC, V4K 3N2

Tel: 604.940.4687  
Fax: 604.946.7022  
David.Cunningham@ec.gc.ca

Sect 13, Sect 16

If we do meet to discuss, it would be important to include SaRCCO

Cheers, Kari.

---

**From:** Sharpe, Sean T ENV:EX  
**Sent:** Fri, August 11, 2006 2:00 PM  
**To:** Guy, Stewart E ENV:EX  
**Cc:** Fraser, Dave F ENV:EX; Nelson, Kari ENV:EX  
**Subject:** RE: EC Recovery Strategies on the Public Registry - Programmes de rétablissement d'Environnement Canada dans le Registre public

1. As per the following reasons provided by SaRCCO, I can understand the wording of the critical habitat definition in the posted by Env Canada. However, I still believe we are setting our Minister up for public scrutiny and potential embarrassment.

(a) under SOMP we delineate and manage those same areas;

- management to date under SOMP has been a failure for conservation of SPOW. This is the fundamental reason we are re-defining the line-work of TACs. In addition, active sites for 2005 birds were protected to 100% - there is no rationale explanation why this would not apply to all active sites defined by Ministry survey protocol, including other years.

(b) SARA does not prescribe the level of management within critical habitat;

It does not, but by precedent of saying we needed 100% for 21005 sites, what reason would we use to say other sites active by our own protocol do not require the same habitat protection?

(c) we can defend the level of management within active sites as not being harmful to owls (67% retention of suitable habitat has some basis in science, and habitat is not the only problem);

This is not the view of the CSORT or most SPOW biologists, and not the MoE recommendation. Modeling and expert opinion suggests that 67% may work if enough areas are grown to the suitable age and structure, but at this time, habitat is limiting. The only places where we are consistently getting owls are in complete retention areas. We cannot biologically defend 67% as being a prudent or best choice for owls given their continued decline. We acknowledge that habitat fragmentation may also increase other problems such as prey decreases, and predator increases.

(d) The inclusion of the line "Further identification of critical habitat under SARA will be developed by Environment Canada, in cooperation with the Province of British Columbia" gives us the opportunity to entrench a more detailed understanding of critical habitat management (i.e. the SOMP 67% rules);

This may be the case, but we are still being set up as not following our own protocols for surveys and defending why the WHAs for some are 100% and others are only 67%.

(e) under SARA s.61 ("no person shall destroy any part of the critical habitat"), the feds have not defined 'destroy'.

Other definitions elsewhere define destroy as "to remove, or render unable, ineffective". It would be extremely unlikely that any reasonable person would judge logging in an active site did not diminish the value of the site, based on current understanding of the biology of these birds.

2. My fundamental concern is more strategic than these details. We have been directing recovery teams (CSORT included)

2007-04-17

that BC will not include critical habitat in recovery strategies. As this is the first BC transmitted strategy, and it is now containing critical habitat definitions, it contradicts the direction our SAR structure is advocating. We have argued that Action Plans will be a government lead process in which critical habitat is defined and socio-economic trade-offs are included. If the critical habitat remains as defined, I fully expect the federal gov't to be lobbied (or sued) to pursue the same level of protection for all sites so defined and not just the 2005 sites that BC has protected 100% of the LTAC.

We can discuss somemore if you like.

Cheers,  
Sean

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**From:** Nelson, Kari ENV:EX  
**Sent:** Thu, July 27, 2006 3:01 PM  
**To:** Sharpe, Sean T ENV:EX  
**Cc:** Guy, Stewart E ENV:EX; Fraser, Dave F ENV:EX  
**Subject:** RE: EC Recovery Strategies on the Public Registry - Programmes de rétablissement d'Environnement Canada dans le Registre public

We had SaRCCO (Kevin Jardine and Liz Williams) review this addendum prior to it being posted (I believe you were away at the time). I believe they felt that the definition wouldn't be a problem (see attached).

---

**From:** Sharpe, Sean T ENV:EX  
**Sent:** Thu, July 27, 2006 1:37 PM  
**To:** Fraser, Dave F ENV:EX; ENV @BIO Species at Risk Information Group; ENV @ECO Wildlife Science Section  
**Cc:** Wilkin, Nancy ENV:EX  
**Subject:** RE: EC Recovery Strategies on the Public Registry - Programmes de rétablissement d'Environnement Canada dans le Registre public

Please note the Env Canada interpretation of identifying critical habitat for SPOW in addendum 2, P2. Essentially this means that sites found with birds between at least 2000 and 2006 are immediately "protected", as the intensive surveys (to protocol standards) in 2004 and 2005 did not cover every site in each year. Our surveys in 2006 are not to protocol for most sites and would cost as much as \$200K to achieve, and may not be achievable due to limited trained surveyors and time available. We will have to respond to this as it has significant economic implications to the Province

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**From:** Fraser, Dave F ENV:EX  
**Sent:** Thu, July 27, 2006 1:15 PM  
**To:** ENV @BIO Species at Risk Information Group  
**Subject:** FW: EC Recovery Strategies on the Public Registry - Programmes de rétablissement d'Environnement Canada dans le Registre public

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**From:** Decarie, Robert [NCR] [mailto:Robert.Decarie@ec.gc.ca]  
**Sent:** July 27, 2006 12:27 PM  
**To:** Pickett, Karolyne: DFO XNCR; ARiemer@serm.gov.sk.ca; daniel.banville@fapaq.gouv.qc.ca; Guy.Jolicoeur@mddep.gouv.qc.ca; Karen Hartley (Karen Hartley); Nelson, Kari ENV:EX; Lindsay.Rodger@pc.gc.ca; msettington@gov.nu.ca; Pascal.Giasson@gnb.ca; Thomas Jung (Thomas Jung); Fraser, Dave F ENV:EX; Jim Duncan (Jim Duncan); Joe Brazil (Joe Brazil); Robert Gau; Rosemary Curley (Rosemary Curley); Sherman Boates (Sherman Boates); Steve Brechtel (Steve Brechtel); Suzanne Carrière (Suzanne Carrière)  
**Cc:** Seburn, Carolyn [NCR]; Nernberg, Dean [NCR]; Decarie, Robert [NCR]; Thompson, Greg [NCR]; Perigny, Yanik [NCR]; Ingstrup, David [Edm]; Davidson, Kevin [Sackville]; Hyde, Doug [NCR]; Dwyer, Patricia [NCR]; Francis, Charles [NCR]; Ringust, Isabelle [SteFoy]; Harris, Ken [NCR]; Mawhinney, Kim [St. John's]; Morehouse, Brenda [NCR]; Nadeau, Simon [NCR]; Mueller, Terry [NCR]; Hayes, Trish [PYR]; Zurbrigg, Eleanor [CIS-Camelot]; Decarie, Robert [NCR]; Austen, Madeline [Ontario]; Boyne, Andrew [Dartmouth]; Branchaud, Alain [Montreal]; Cunnington, David [PYR]; Duncan, Dave [Edm]; Han, Siu-Ling [Iqa]; Hayes, Kate [Ontario]  
**Subject:** EC Recovery Strategies on the Public Registry - Programmes de rétablissement d'Environnement Canada dans le

2007-04-17

**Nelson, Kari ENV:EX**

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**From:** Vennesland, Ross ENV:EX  
**Sent:** Fri, February 24, 2006 1:42 PM  
**To:** Nelson, Kari ENV:EX  
**Subject:** RE: Spatially explicit CH in recovery strategies

Thanks. I can't go over, but would attend by phone. If I had a copy of the presentation, then I could go virtual.

Ross

-----Original Message-----

**From:** Nelson, Kari ENV:EX  
**Sent:** February 24, 2006 1:18 PM  
**To:** Vennesland, Ross ENV:EX  
**Subject:** RE: Spatially explicit CH in recovery strategies

Hi Ross,

Are you free the morning of March 10th? Dave Cunnington and Kevin Fort are going to be over here, and we plan to chat about critical habitat. Dave has a presentation planned - he was supposed to send me a note with more details, and then I was going to send out an invitation. We need to talk a bit about approach, but it will be a good opportunity for some discussion of some of the issues I've raised.

So if you are free, and can tentatively plan to come over, that would be great. As I said, I'll send another note out later to follow up...

Cheers, Kari.

-----Original Message-----

**From:** Vennesland, Ross ENV:EX  
**Sent:** February 24, 2006 11:34 AM  
**To:** Nelson, Kari ENV:EX  
**Subject:** RE: Spatially explicit CH in recovery strategies

Okay, this is helpful so thanks - lots to digest, so stand by for more discussion sometime.

Ross

-----Original Message-----

**From:** Nelson, Kari ENV:EX  
**Sent:** February 23, 2006 2:21 PM  
**To:** Vennesland, Ross ENV:EX; Sharpe, Sean T ENV:EX; Fraser, Dave F ENV:EX; Guy, Stewart E ENV:EX  
**Cc:** Campbell, Lynn N ENV:EX  
**Subject:** RE: Spatially explicit CH in recovery strategies

Hi Ross,

This is a really complicated issue, and I think we need to put some thought into how to communicate these complexities effectively to recovery teams.

I think the most simple solution in the short term (until we have the provincial policy work completed) is simply to tell the teams that because of uncertainty with respect to provincial policy for spatial identification of critical habitat, and federal policy for legal identification of critical habitat, provincial recovery strategies should not contain spatially explicit identification of critical habitat. There may be some exceptions to this general guidance, but these need to be clearly articulated (e.g. where there is an imminent threat, and the land/tenure owner/holder has been consulted).

As I mentioned, if your recovery teams have a terms of reference, they are required to follow provincial guidance for the preparation of strategies, and this is current provincial guidance. So we really should not be put in a position of having to change strategies - they are being asked to do something in a way that is consistent with their terms of reference.

I've provided more detailed information on each of the points you raised below - hopefully to provide a bit more clarity on some of these issues. I'm sorry that this hasn't been articulated and communicated better, but as you know, there are many pressures on us at this time, and we just have to be patient as we work through these

**Cottam, Nick ENV:EX**

**From:** Reiss, Lucy [PYR] [Lucy.Reiss@ec.gc.ca]  
**Sent:** Monday, December 10, 2007 11:36 AM  
**To:** Brown, Jeff ENV:EX  
**Cc:** Cunnington, David [PYR]  
**Subject:** RE: Vancouver Island Marmot

*10/10/07*

Hi Jeff;

From a very quick read, it seems like there are still some unresolved issues around SARA compliancy, and I would prefer to resolve those prior to Director review, either with (preferably) changes to the document or (less preferred) an explanation for why the issues haven't been resolved, which will have to inform our federal addition to the document.

}

}

}

The major areas that leap out at me are: 1) the CH section, and specifically the schedule of studies - it is not clear from the text why currently occupied habitat couldn't be identified, and the schedule of studies is seriously lacking in detail for what is needed for a complete identification of CH; and 2) the statement on action plans only refers to a CH action plan - we would be looking for one or more action plans that collectively will meet SARA requirements. That will be broader than just CH, although it's an important component. Also, presumably the timeline of 2008 is for a draft. We will either need to clarify in the addendum or in the BC document when an AP could be posted on the SARA registry.

I understand the desire to reduce recovery team fatigue, but I can't support sending a document to Director-level review that doesn't appear SARA compliant without a good rationale for it.

Thanks,  
Lucy

**From:** Brown, Jeff ENV:EX [mailto:Jeff.1.Brown@gov.bc.ca]  
**Sent:** Monday, December 10, 2007 11:06 AM  
**To:** Reiss, Lucy [PYR]  
**Cc:** Cunnington, David [PYR]  
**Subject:** Vancouver Island Marmot

Hi Lucy,

I have been working with the Vancouver Island Marmot recovery team over the past few months on the Recovery Strategy. We now have a strategy that we are happy with moving forward. A copy of the document is now posted under the 'consultation ready' tab on the SharePoint site.

As part of the update MOE sent the document to a biological editor and then I further reorganized the document. I returned the updated copy to the recovery team with outstanding comments in track changes. The team went through the document and addressed all outstanding comments and we worked out issues where team and MOE revisions did not match. The current version has some comments from CWS that were outstanding with the team's response to those comments. Please take a look over and let me know if you have any major issues. I would prefer to move the document into director level review (In Jan) and go back to the recovery team with one final set of comments because I think it will go a long way in facilitating their incorporation (rather than going back for an additional round of revisions before government review).

Please let me know if this approach is ok with you.

Thanks,  
Jeff

**Recovery Strategy – Don Doyle**

The government stripped out definitions of critical habitat etc. Things keep changing.  
Definition of Critical Habitat is now in the Action Plan  
The action plan is what will be done to help to save the species

So far everything is good, it has been commented on as being one of the better ones out there.

Designed to be 5 year windows – hope to see an approved copy during 2007

We have been told not to wait for the official and to go ahead as usual.

There is no clear process yet through SARA as to how the gov't should proceed with Action plans and recommendations from recovery teams.

Dave Fraser – The strategy was sent out for an edit – we will see it after that for the Recovery Team to review the comments

**Critical Habitat – Dave Lindsay**

*See attached presentation*

There are manuals for the composition of the reports itself

There is a report that has currently been created that will be reviewed

Definitions:

Critical – needed to maintain existing population (doesn't make much sense for us, as the wild population is so low)

Recovery – What is needed to recover the species – expands the needed habitat significantly

Ie: protect needed habitat

Developing stewardship agreements with appropriate groups will be necessary

**Identification of recovery Habitat**

**1. Conserve the Recovery Habitat**

a. Identify the threats

b. Identify what is currently protected

**2. Management of Stewardship agreements between:**

Forest companies

Mt Washington

Mt Cain (WFP)

Strathcona Park

Non responsive

## LETTER OF INSTRUCTION TO RECOVERY TEAMS FROM SARCC

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Date: 6 June 2007

To: All BC species at risk recovery team chairs

From: Canada-BC Species at Risk Coordinating Committee (SARCC)

Purpose: To provide direction to and clarify the role of BC species at risk recovery teams.

Dear recovery team chair;

Please accept our appreciation for the valuable work you are undertaking on behalf of species at risk in BC. We recognize that the recovery of species at risk is heavily dependent on the work of dedicated people like you.

As you may know, the Canada – BC Species at Risk Coordinating Committee (SARCC) was established in 2005, through the signing of the Canada – BC Agreement on Species at Risk (the bilateral agreement<sup>\*</sup>). We know that recovery teams have had to deal with evolving guidance and templates with respect to recovery planning, particularly since the introduction of the federal *Species at Risk Act* (SARA).

One of SARCC's aims is to improve coordination of federal and provincial recovery processes and procedures. To that end, we would like to provide you with direction on those areas of recovery planning for which we have achieved a common understanding and that have stabilized. Some of these directions stem from the development of a National Framework for Species at Risk (NFSAR), the key principles of which were endorsed by the Ministers responsible for wildlife in October 2006.

### **Role of recovery teams and development of recovery strategies**

As you know, the primary role of the recovery team is the development of a recovery strategy that identifies recovery goals, objectives, and general approaches to reduce threats to the species' survival, based on the best available scientific, traditional and local knowledge of the species. One of the key areas of understanding achieved is that recovery strategies represent **advice** to government and others. Responsibility and accountability for making management decisions based on this advice rests with the responsible agencies, land owners and land managers. Advice provided by recovery teams, in the form of a recovery strategy, does not constitute government policy.

This primarily advisory function does not, however, preclude recovery team members from being directly involved in recovery implementation. In fact we encourage teams and/or members, where possible and as appropriate, to become involved in developing funding proposals and partnerships with researchers, stakeholders and stewardship groups to implement high priority research or stewardship actions that will benefit recovery of the species.

Recovery strategies are submitted to the lead agency as outlined in table below (with a few possible exceptions).

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<sup>\*</sup> Available at: [http://www.sararegistry.gc.ca/agreements/showDocument\\_e.cfm?id=749](http://www.sararegistry.gc.ca/agreements/showDocument_e.cfm?id=749)

Many recovery teams have terms of reference that provide them with further clarity on their role and relationship with the lead agency. If your recovery team does not yet have terms of reference, we encourage you to contact the recovery planning coordinator of the lead agency for guidance and templates (see contacts listed at the end of this letter).

<b>Species type</b>	<b>Lead Agency</b>
Marine species	Fisheries and Oceans Canada
Freshwater fish	Fisheries and Oceans Canada & BC Ministry of Environment
Most terrestrial species	BC Ministry of Environment
Species predominantly on/in lands/waters administered by Parks Canada (National Parks, Historic Sites and Marine Conservation Areas)	Parks Canada Agency
Migratory birds	Environment Canada

The recovery planning coordinator within each lead agency will also be able to provide you with information regarding initiation of new recovery planning processes, timelines for recovery strategy preparation and information regarding content requirements for recovery strategies. Recovery strategies prepared using recent guidelines and templates have improved significantly. Therefore, for **new** recovery strategies, teams must use the current templates and guidance provided by your lead agency.

These new templates and guidance documents also provide increased clarity on how to deal with description and identification of critical habitat in recovery strategies (including those strategies already under development or review). It is important that recovery teams understand that their role in development of the recovery strategy is to provide **the best available science-based advice** to the lead agency in the form of a technical description of the **attributes** of proposed critical habitat for the species (in whole or in part). Legal identification and/or protection of the habitat is the responsibility of the lead agency.

### **Preparation, review and finalization of recovery strategies**

Regardless of the lead agency, all recovery strategies follow the same general process for preparation, review and finalization. More detailed information can be obtained from lead agency contacts.

1. The recovery team or recovery planner (contractor, government staff, etc.) prepares a *draft* recovery strategy. Federal members or leads will ensure that a SARA compliancy review is completed at this stage.
2. When **all** recovery team members are comfortable with the draft recovery strategy, it is submitted to the lead agency (through the agency recovery planning coordinator) for *first jurisdictional review*, and sent to external reviewers for external *peer review* (note: the recovery planning coordinator in the lead agency may assist with coordination of the external peer review process).
3. The lead agency coordinates the *first jurisdictional review* of the recovery strategy, and will provide the team with a consolidated set of comments. Comments from *peer review*, which should be conducted concurrently, will be sent directly to team / recovery planner.
4. The recovery planner / team will *revise* the recovery strategy to address / respond to comments received. Again, it is important that **all** team members have an opportunity to review the revised

draft recovery strategy to ensure that they are comfortable with the changes that have been made. The revised draft is submitted to the lead agency.

5. In some cases, *consultation* on the revised draft recovery strategy may take place at this stage. The lead agency, not the recovery team, is responsible for any formal consultation. However, any communications the team may have had with people that may be affected by or involved in the recovery of the species should be documented and passed on to the lead agency. Comments arising from consultation, especially relating to the science of the species may be referred to the recovery team. Formal responses to comments received during consultation will be the responsibility of the agency leading the consultation process.
6. The lead agency coordinates *final jurisdictional review*. Again, consolidated comments may be provided to the team, so that any necessary revisions can be made.
7. Provincially-led recovery strategies will be posted on the MOE web site and made available for adoption by the federal minister for posting on the SARA public registry. Federally-led (and in some cases co-led) strategies will be posted on the SARA public registry.

### **Development and implementation of recovery action plans**

We are currently developing guidelines and policies to support recovery action planning. Currently direction includes: 1) using multi-species or landscape level action planning wherever appropriate; and 2) including stakeholders who will be responsible for making land-use or management decisions that will affect the recovery of the species in the action planning process. It is important to understand that action plans produced by teams or implementation groups will be viewed as advice to government and others, and may not represent a final action plan that will be posted on the SARA public registry or a provincial web site.

We will advise you of any new formal direction regarding the recovery action planning process in a follow-up letter. In the meantime, we will be contacting you to gain an accurate understanding of the work that is currently underway. Again, we appreciate your patience as we work through these species at risk policy issues and develop guidance to support your efforts.

In conclusion, we hope this letter provides you with more clarity and direction with this complex and evolving file. We encourage you to share this information with the other members of your recovery team and to contact the recovery planning coordinators in your agency for more information or for further discussion. Thank you again for your dedication and contribution to species at risk recovery.

Sincerely,

Kaaren Lewis  
Director, Ecosystems Branch,  
BC Ministry of Environment

Diane Medves  
Director, Forest Practices Branch,  
BC Ministry of Forests and Range

Mark Zacharias  
Director, Species at Risk Coordination Office,  
Integrated Land Management Bureau,  
BC Ministry of Agriculture and Lands

Paul Kluckner  
Director, Pacific and Yukon  
Canadian Wildlife Service,  
Environment Canada

Page 3 of 4

Steve Langdon  
Superintendent, Coastal BC Field Unit  
Parks Canada Agency

Allison Webb  
Regional Director, Policy Branch,  
Pacific Region, Fisheries and Oceans Canada

Recovery planning contacts within each lead agency:

<b>Lead Agency</b>	<b>Recovery Planning contact (coordinator)</b>
BC Ministry of Environment	Jeff Brown; <a href="mailto:Jeff.L.Brown@gov.bc.ca">Jeff.L.Brown@gov.bc.ca</a> / 250.356.9212
Environment Canada	Dave Cunnington; <a href="mailto:David.Cunnington@ec.gc.ca">David.Cunnington@ec.gc.ca</a> / 604.940.4687 or Lucy Reiss; <a href="mailto:Lucy.Reiss@ec.gc.ca">Lucy.Reiss@ec.gc.ca</a> / 604.940.4668
Fisheries and Oceans Canada	Liane O'Grady; <a href="mailto:OgradyL@pac.dfo-mpo.gc.ca">OgradyL@pac.dfo-mpo.gc.ca</a> / 604.666.9909
Parks Canada Agency	Pippa Shepherd; <a href="mailto:Pippa.Shepherd@pc.gc.ca">Pippa.Shepherd@pc.gc.ca</a> / 604.666.7378

## Appendix C

### Draft BC Direction on Critical Habitat

#### National Guidelines for Completing Recovery Strategy Templates

The recovery goal and population and distribution objective(s) should be determined before proceeding with Critical Habitat identification.

*DRAFT BC direction on Critical Habitat: provincial strategies should describe attributes of habitat (occupied and potential) only. Geo-spatial identification of critical habitat should not be included in the recovery strategy. It should be made clear that critical habitat is not being proposed at this time. Suggested wording:*

"No critical habitat, as defined under the federal Species at Risk Act [s2], is proposed for identification at this time. While much is known about the habitat needs of the species included within this recovery strategy, more definitive work must be completed before any specific sites can be formally proposed as critical habitat. It is expected that critical habitat will be proposed within one or more recovery action plans following: 1) consultation and development of stewardship options with affected landowners and organizations and 2) completion of outstanding work required to quantify specific habitat and area requirements for these species. A schedule of studies outlining work necessary to identify critical habitat is found below."

#### 2.5.1 Identification of the species' critical habitat

Length: 1-2 pages; may be longer if maps or graphic illustrations are used

See 'A Guide to the Critical Habitat Provisions of the Species at Risk Act' and 'Technical Guidelines for Identifying Critical Habitat' for guidance.

Critical habitat is defined in SARA as "the habitat that is necessary for the survival or recovery of a listed wildlife species..." It should relate to the recovery goal: if the goal is survival (maintaining existing population size and distribution), then the critical habitat would be the habitat needed to maintain the species. If the recovery goal is full recovery, then the critical habitat would be the habitat needed by the species in order to maintain a self-sustaining and viable population level. In most cases, the recovery goal and the identified critical habitat will fall somewhere within the continuum from survival to full recovery. The critical habitat proposal should be developed with reference to population and distribution objectives, particularly with respect to the amount, distribution, and connectivity of habitat patches.

\*Note that critical habitat is not formally identified until the final version of the recovery strategy or action plan for the species that contains the critical habitat identification has been accepted and placed on the SARA public registry. Until that time, the identification of critical habitat should be developed to the extent possible, but be considered a proposal only (as advice to the competent minister).

The steps recommended for identifying critical habitat include:

- Location, to the extent possible, of all occupied habitat.
- Qualification of species' habitat needs.
- Identification of suitable unoccupied habitat.

## Appendix D

Email from Keri Nelson to Sue Pollard. March 23, 2006.

### Nelson, Kari ENV:EX

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**From:** Pollard, Sue M ENV:EX  
**Sent:** Thu, March 23, 2006 1:10 PM  
**To:** Nelson, Kari ENV:EX  
**Subject:** RE: Revised Recovery Strategy Review process

Well, I think it works, what about the others?

-----Original Message-----

**From:** Nelson, Kari ENV:EX  
**Sent:** March 23, 2006 12:07 PM  
**To:** Pollard, Sue M ENV:EX  
**Subject:** RE: Revised Recovery Strategy Review process

How is this?

The strategy will describe, to the extent possible, biophysical aspects of critical habitat, but will not contain geographic locations or spatial attributes (map locations, or UTM's) of critical habitat.

-----Original Message-----

**From:** Pollard, Sue M ENV:EX  
**Sent:** March 23, 2006 11:23 AM  
**To:** Nelson, Kari ENV:EX  
**Subject:** RE: Revised Recovery Strategy Review process

Kari - Regarding content requirements point 4 - Critical habitat will not be identified (by map locations, or UTM's) in the recovery strategy

Should it be more specific ... "Ch will not be identified geographically (or spatially?)...., but can be described in terms of key biophysical attributes"? I'm just thinking of some of our fish CH pieces in RS's.

Sue

-----Original Message-----

**From:** Nelson, Kari ENV:EX  
**Sent:** March 23, 2006 9:55 AM  
**To:** ENV @BIO Species at Risk Information Group  
**Cc:** Bawtinheimer, Brian ENV:EX  
**Subject:** RE: Revised Recovery Strategy Review process

Hi again,

Here is another one of the pieces that was in the original package. Again, not yet approved, or even really discussed in a meaningful way, so please do not circulate, and if you have any comments, let me know.

<< File: DRAFT Principles and content for provincial recovery strategies\_23Mar2006.doc >>

Cheers, Kari.

-----Original Message-----

**From:** Nelson, Kari ENV:EX  
**Sent:** March 21, 2006 2:52 PM  
**To:** ENV @BIO Species at Risk Information Group  
**Cc:** Bawtinheimer, Brian ENV:EX  
**Subject:** Revised Recovery Strategy Review process

Hi all,

As mentioned on the call today, here is the revised process - hopefully I have dealt with most of the concerns people have raised.

I've also included processes for strategies that we don't lead, and I've separated out some of the introductory material - it is likely that this will be packaged separately. I also plan to do up a simple flow chart(s) of the steps. Note that these processes have still not been approved, so please do not distribute them.

Cheers, Kari.

<< File: DRAFT BC Recovery Strategy review process\_table\_20Mar2006.doc >> << File: Responsibility for Recovery Planning in BC\_20Mar2006.doc >>

Kari Nelson

*Species at Risk Biologist*

# Appendix E

## Letters of Support



200 – 2006 West 10<sup>th</sup> Avenue  
Vancouver, BC V6J 2B3  
www.wcel.org

tel: 604.684.7378  
fax: 604.684.1312  
toll free: 1.800.330.WCEL (in BC)  
email: admin@wcel.org

November 24, 2008

John Doyle, Auditor General  
8 Bastion Square  
Victoria, BC  
V8V 1X4

Dear Auditor General:

Please be advised that West Coast Environmental Law supports the request that the Auditor General conduct a formal and complete examination of:

- the systematic refusal of the British Columbia Ministry of Environment to properly identify critical habitat for endangered species, as required by the *Canada-British Columbia Agreement on Species at Risk*,<sup>1</sup> the *Accord for the Protection of Species at Risk*,<sup>2</sup> and the *Species at Risk Act*.<sup>3</sup>

We urge you to undertake this examination. Species and their habitats provide many tangible and intangible benefits, and are undoubtedly one of the reasons our provincial government felt we could refer to our province as “the best place on earth”. Their economic value is huge, for activities such as tourism and recreation, and for services such as water filtration and carbon sequestration. Protecting habitat is the single most effective way of ensuring that endangered species survive; it is also one of the most cost-effective. The habitats and the species that depend on them are part of the natural heritage that we are responsible for leaving to our children and our children’s children.

Sincerely,  
West Coast Environmental Law

Patricia Chew  
Executive Director

<sup>1</sup> *Canada-British Columbia Agreement on Species at Risk*,  
[http://www.sararegistry.gc.ca/sar/permit/administrative\\_e.cfm](http://www.sararegistry.gc.ca/sar/permit/administrative_e.cfm).

<sup>2</sup> Signed by the federal, provincial and territorial governments of Canada

<sup>3</sup> *Species at Risk Act*, S.C. 2002, c. 29

November 24 2008

John Doyle, Auditor General  
8 Bastion Square  
Victoria, BC  
V8V 1X4

Dear Auditor General:

Please be advised that David Suzuki Foundation supports the request that the Auditor General conduct a formal and complete examination of:

- the systematic refusal of the British Columbia Ministry of Environment to properly identify critical habitat for endangered species, as required by the *Canada-British Columbia Agreement on Species at Risk*,<sup>1</sup> the *Accord for the Protection of Species at Risk*,<sup>2</sup> and the *Species at Risk Act*.<sup>3</sup>

We urge you to undertake this examination given high rates of endangerment in the province, as well as the fact that current government policy is not working.

For example, British Columbia is Canada's richest province, biologically. It is home to 76 per cent of Canada's bird species, 70 per cent of its freshwater fish species, and thousands of other animals and plants. Well over 3,600 species call B.C. home, and many of these, such as mountain goat and mountain caribou, live mostly – or only – in the province. For others, such as the migratory Trumpeter Swan and Sandhill Crane, B.C. is a critical wintering ground or stopover. However, more than 1,600 species are currently threatened or endangered in B.C. and levels of endangerment are especially high within some wildlife groups<sup>4</sup>.

British Columbia is one of only two provinces in Canada that lacks stand-alone endangered species legislation, the province choosing instead to rely on existing wildlife

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<sup>1</sup> *Canada-British Columbia Agreement on Species at Risk*,  
[http://www.sararegistry.gc.ca/sar/permit/administrative\\_e.cfm](http://www.sararegistry.gc.ca/sar/permit/administrative_e.cfm).

<sup>2</sup> Signed by the federal, provincial and territorial governments of Canada

<sup>3</sup> *Species at Risk Act*, S.C. 2002, c. 29

<sup>4</sup> Moola et al. 2007. *Biodiversity*. 8(1) 3 – 11.

Dr. Faisal Moola, PhD  
Director of Terrestrial Conservation and Science  
David Suzuki Foundation  
219-2211 West 4<sup>th</sup> Avenue  
Vancouver, BC, V6K 4S2



David  
Suzuki  
Foundation

SOLUTIONS ARE IN OUR NATURE

---

and resource management laws, such as the amended *Wildlife Act* and *Forest and Range Practices Act*, to address species and ecosystems at risk. However, the existing fragmented policy landscape for BC's species at risk provides little legal mandate for protection and has proven to be ineffective to actually protect and recover wildlife at risk or their habitat. For example a recent review<sup>5</sup> found that eighty-seven per cent of known threatened and endangered species in British Columbia are not protected under BC's laws or policies for species at risk (e.g., the IWMS policy of the *Forest Range and Practices Act* and the *Wildlife Act*) or under federal endangered species legislation (*Species at Risk Act*). Furthermore, existing provincial laws do not require habitat protection (and, in some cases, prevent habitat protection) and do not require recovery planning and action. The sad reality is the vast majority of BC's species and ecosystems at risk remain poorly protected by provincial law. For this reason, we are particularly concerned about the systematic refusal of the British Columbia Ministry of Environment to properly identify critical habitat for endangered species under the federal Species at Risk Act.

Yours truly,

Dr. Faisal Moola, PhD  
Director of Terrestrial Conservation and Science

David Suzuki Foundation

A handwritten signature in black ink, appearing to read 'F. Moola', with a long horizontal stroke extending to the right.

---

<sup>5</sup> Ibid.



SIERRA  
CLUB  
BC

302-733 Johnson Street  
Victoria, BC V8W 3C7

T (250) 386-5255  
F (250) 386-4453

E [info@sierraclub.bc.ca](mailto:info@sierraclub.bc.ca)  
W [www.sierraclub.bc.ca](http://www.sierraclub.bc.ca)

November 24, 2008

John Doyle, Auditor General  
8 Bastion Square  
Victoria, BC  
V8V 1X4

Dear Auditor General:

Please be advised that Sierra Club BC supports the request that the Auditor General conduct a formal and complete examination of:

- the systematic refusal of the British Columbia Ministry of Environment to properly identify critical habitat for endangered species, as required by the *Canada-British Columbia Agreement on Species at Risk*,<sup>1</sup> the *Accord for the Protection of Species at Risk*,<sup>2</sup> and the *Species at Risk Act*.<sup>3</sup>

We urge you to undertake this examination for the following reasons. Species at risk and their habitat constitute highly valuable Crown resources with substantial environmental, economic and social values. Habitat loss and degradation is the primary threat to BC's at-risk species, threatening 86 percent of identified species at risk in the province. In addition, wetlands, forests and other endangered species habitat provide invaluable ecosystem services to British Columbians, including carbon capture essential to mitigating potentially catastrophic global warming.

The BC government, through its refusal to identify critical habitat, delays protection of critical habitat for almost all species at risk, the most egregious examples being the Vancouver Island Marmot and Garry Oak woodlands and meadows. This is contrary to the provincial government's legal duties under the Species at Risk Act and its commitments under federal-provincial agreements. Sierra Club BC believes it is clearly in the public interest for the Auditor General to determine whether irreplaceable public resources are being wasted and lost due to government's failure to identify and protect critical habitat for species at risk.

Sincerely,

Susan Howatt  
Director of Campaigns and Community Engagement  
(On behalf of Sierra Club of BC)

<sup>1</sup> *Canada-British Columbia Agreement on Species at Risk*, [http://www.sararegistry.gc.ca/sar/permit/administrative\\_e.cfm](http://www.sararegistry.gc.ca/sar/permit/administrative_e.cfm).

<sup>2</sup> Signed by the federal, provincial and territorial governments of Canada

<sup>3</sup> *Species at Risk Act*, S.C. 2002, c. 29



November 21, 2008

John Doyle, Auditor General  
8 Bastion Square  
Victoria, BC  
V8V 1X4

Dear Auditor General:

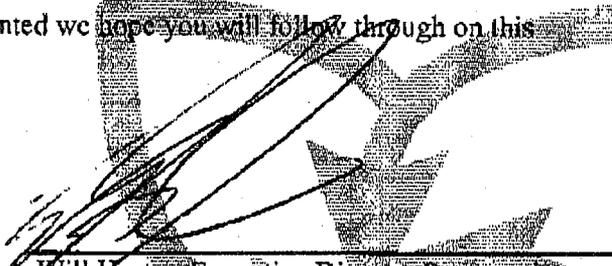
Please be advised that Dogwood Initiative supports the request that the Auditor General conduct a formal and complete examination of the systematic refusal of the British Columbia Ministry of Environment to properly identify critical habitat for endangered species, as required by the *Canada-British Columbia Agreement on Species at Risk*, the *Accord for the Protection of Species at Risk*, and the *Species at Risk Act*.

We urge you to undertake this examination for two reasons; First, we share a general concern at the provinces' refusal to identify critical habitat. Second, we are specifically concerned about species at risk whose habitat falls within previous Tree Farm Licence 25 lands, now under threat of subdivision.

**Species at Risk in previous Tree Farm Licence 25 lands:**

Dogwood and partners have particular interest in private lands which have been deleted out of Tree Farm Licences, and the management of those lands post- deletion. We have been working with communities and First Nations regarding Western Forest Products private lands and subdivision applications in these areas. A list of species at risk have been identified in the areas where Western Forest Products proposes subdivisions. These species include: Red legged frog; Dromedary jumping slug; Warty jumping slug; Nodding semaphoregrass; White glacier lily; Smith's fairy bells; Barn owl; Marbled murrelet; Northern goshawk laingi subspecies; Western toad; Monarch; Banded cord moss; and Streambank lupine. It is extremely important that critical habitat is defined so that the species at risk may be protected on these lands.

For the above mentioned reasons and others presented we hope you will follow through on this request for examination.



Will Horter, Executive Director Dogwood Initiative



# Georgia Strait Alliance

"Caring for our Coastal Waters"

www.GeorgiaStrait.org

November 24, 2008

John Doyle, Auditor General  
8 Bastion Square  
Victoria, BC  
V8V 1X4

Dear Auditor General:

Please be advised that Georgia Strait Alliance supports the request that the Auditor General conduct a formal and complete examination of:

- the systematic refusal of the British Columbia Ministry of Environment to properly identify critical habitat for endangered species, as required by the *Canada-British Columbia Agreement on Species at Risk*, the *Accord for the Protection of Species at Risk*, and the *Species at Risk Act*.

The mission statement of the Georgia Strait Alliance is to protect and restore the marine environment and promote the sustainability of the Georgia Strait, its adjoining waters, and communities. In the context of our work, we address species at risk by focusing on threats to habitat in the Strait of Georgia and its adjoining waters. In the last several years, we have become increasingly concerned about the failure of both provincial and federal governments to protect those species that are the most vulnerable.

We urge you to undertake this examination for two primary reasons. First, we already have deep concerns with how the federal government is implementing its Species at Risk Act (SARA). This concern is only increased as we see the province not effectively playing its part in ensuring that SARA protects at risk species. Second, SARA only applies to species on federal lands and waters, leaving any species unlucky enough to be found outside those boundaries in peril. Without a stand along the Species at Risk Act, vulnerable species in this province will have little chance of recovery.

[On behalf of Georgia Strait Alliance]

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Appendices (Nov 25, 2008): Page 37 of 37