Identification and Designation of Species at Risk in British Columbia – Part 2

Ben van Drimmelen[1] and Greg Jones[2]

[1]876 Linkeas Avenue, Victoria, BC V8S 5C3

[2]3042 Larkdowne Road, Victoria, BC V8R 5N2

Introduction

The identification and legal designation of *species at risk* in British Columbia were previously summarized by Jones and van Drimmelen (2007). We described a complex and overlapping series of federal and provincial processes. Some are based in laws (*e.g.,* the federal *Species at Risk Act*, provincial "wildlife habitat areas" under the British Columbia *Forest and Range Practices Act*), and some are creatures of policy or government organization (*e.g.,* the British Columbia Conservation Data Centre). We also identified gaps in the provincial government program, including missing major groups such as plants and invertebrates (Figure 1), missing land use impacts such as urban development, mining and livestock grazing, and missing ecological features such as conservation of essential habitat. In this article, we compare the attributes of legislation that are necessary to effectively conserve *species at risk* federally in Canada and provincially in British Columbia.

Essential Attributes of Species at Risk Legislation

We will begin with a standard for comparison by discussing what is required to effectively conserve *species at risk*.

The protection and conservation must be legally enforceable. Given constant and increasing human pressure to use land and resources (Figure 2), there needs to be law that requires, not simply enables, recovery. Policy is not enough; it is transitory and usually subject to more discretion than laws. For *species at risk*, particularly those that are *endangered*, there is little room for error – either the organism and its essential habitat components are protected, or the species will be degraded to *extirpated* or, potentially, *extinct* status. To ensure such protection, both

government land use decision-makers, and those who use the land and resources, have to be subject to clear, enforceable long-term restrictions. Those depend on firm statutes and regulations that don't contain excess discretionary powers for decision-makers.

Figure 1. Major groups, such as invertebrates, are often ineligible for legal designation as *species at risk*. This subspecies of Common Ringlet (*Coenonympha california benjamini*) is a species of *special concern* in British Columbia, and occurs primarily in the Peace River Region. Near Groundbirch, BC. 25 June 2006 (Michael I. Preston).

Figure 2. The Fraser River delta, estuary, lowlands, and associated uplands in the Lower Mainland region of British Columbia supports the highest diversity of birds in the province as well as many species at risk. Urbanization, with its satellite effects of infrastructure, slowly erodes at living space for humans as well as wildlife species. Simon Fraser University in Burnaby, BC. 18 June 1970 (R. Wayne Campbell).

And what are the essential attributes of such legislation?:

1. broad scope;
2. scientific listing of species status;
3. political designation as legally at risk;
4. protection and recovery of organisms;
5. protection and restoration of habitat; and
6. effective enforcement.

First and foremost, the legislation must have broad scope. Lichens, mosses, vascular plants, molluscs, insects, fishes, amphibians, reptiles, birds, and mammals should all be eligible for inclusion in *species at risk*.

Second, there must be a science-based listing process to identify which species may require protection. This is distinct from a legal and political designation process that results in protective provisions. The listing process is the first cut – species that should, on the basis of numbers, population trend and vulnerability be eligible for designation and legal protection. This process should be based on the best available science and scientific data, not subject to political or lobbying influences. It should incorporate a cautious approach. Given the limited room for error, it is more prudent to list a species and later de-list than not to list if, as will often be the case with scarce species, a solid and reliable database is not available. Examples of a suitable listing process are those carried out by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and by the provincial British Columbia Conservation Data Centre.

However, society may or may not want to conserve every *species at risk*. While some apply ethical or moral principles and insist that all species have a right to continue to exist, most tend to weigh the costs and benefits to society as a whole. Most

also want decisions affecting society to be made by elected officials, not appointed biologists. Therefore, a third attribute of effective legislation to conserve *species at risk* is allowing a social decision on whether or not a listed species should actually be designated for legal protection. In other words, while the listing of eligible species should be based on science, the actual decision to designate a *species at risk* and thereby invoke legal protection should be made by government, which is directly or indirectly accountable to the public.

For *species at risk* that are listed and also designated, the fourth essential legislative attribute is protection of the organisms themselves. This will typically be a prohibition against killing, harming, capturing, harassing, taking, buying or selling an individual, or a life stage (*e.g.,* egg) or derivative or part of the organism. There may also be a need for emergency protection, perhaps by an emergency order by government. Equally important is a requirement to expedite recovery of the species. If a *species at risk* population may be at a dangerously-low level (*endangered* or *threatened*), there should be a requirement for government to produce and implement a recovery plan on how best to reverse the decline. Also essential are mandatory monitoring and reporting of results, and accountability for the responsible politicians. Given the intense competition within governments for budget and staff resources, and a propensity for politicians to delay decisions that may adversely affect the economy, strict time limits for recovery plans are necessary. There should also be actions triggered if the time limits are not met. The most risk-averse approach is for the law to put broad protective measures into effect by default unless a more specific recovery plan is produced on time.

Once the organism is dealt with, the fifth attribute applies – the legislation should deal with conservation and restoration of essential habitat features. Such features may be seasonal, depending upon the species' life requisites. There are a number of ways to do that. The legislation can simply make it an offence to damage or harmfully alter the habitat of a designated species, without defining the specific areas. Alternatively, the legislation can provide for the designation of habitat areas that are subject to specified land use or activity restrictions in order to protect and restore habitats (Figure 3). A compromise is also possible, with a government official having the discretion to decide where it is an offence to alter or damage habitat of *species at risk* without legally designating habitat areas. Regardless of the method, it is essential to protect habitats, and to restore damaged habitats where the environment has the capability (albeit not in its current condition) to support the *species at risk*.

Typically, there is a distinction made between protection and restoration of habitat on provincial Crown versus private land. While government can impose conditions on Crown land, making it an offence to damage the protected habitat or requiring habitat restoration activities, government is usually reluctant to unduly interfere with use of private land. However, much of the habitat of *species at risk* in British Columbia is on such private land – think of the desert ecosystem in the Okanagan valley and the valley bottom habitats in the Fraser River valley. Another example is the narrow strip of coastal Douglas-fir ecosystem bordering the southern Strait of Georgia. Most of the coastal Douglas-fir ecosystem, a provincial conservation priority, occurs on Vancouver Island. Fully 93% of

Figure 3. The nesting habitat for the American White Pelican (*Pelicanus erythrorhynchos*) is protected in a provincial park, and many feeding and loafing areas are within Wildlife Habitat Areas designated under the Identified Wildlife Management Strategy of the *Forest and Range Practices Act*. The American White Pelican is designated as *endangered* under the *BC Wildlife Act*. Pantage Lake, BC. 24 May 1994 (R. Wayne Campbell).

that is on private property, most of which has now been altered by urban development, agriculture, and forestry (Figure 4). All three of these areas contain many *threatened* or *endangered* species. Where habitat on private land is an essential recovery factor, legislation for *species at risk* should provide for voluntary stewardship agreements or conservation covenants with landowners to encourage protection and restoration.

The sixth important attribute is enforcement of the protective legislation. This raises the question of who should be empowered to enforce. Should federal and provincial government agencies have the sole discretion on whether to enforce or not? Or, as in Yukon Territory, should a member of the public be able to enforce the law by initiating a private prosecution? Another option, in place in Yukon and in some American states, is a public trust feature, whereby the public has a right to take action against the government if the government fails to enforce the legislation. If empowering direct public action is too innovative, there is a less drastic mechanism of empowering an independent government watchdog agency such as the ombudsman or auditor general to investigate and report on the appropriateness of government enforcement. Another option is to give qualified private organizations the legal right to monitor and report on implementation of the legislation and to initiate legal action. Regardless of whether the chosen system is government or private, it should include members of relevant biological and legal professional organizations.

Species at Risk Legislation in British Columbia

A search for the term "wildlife" in the British Columbia statutes gives initially encouraging results – 32 statutes mention wildlife. However, several such as the *Creston Valley Wildlife Act* and *Local Government Act*, are very localized. Several others, such as the recent *First Nations Treaty* statutes for the Nisga'a, Maa-Nulth and Tsawwassen nations, apportion rights to use wildlife but don't deal with *species at risk*. Many others have just passing reference, such as mentions of wildlife in the *Auditor General Act* and *Dike Maintenance Act.*

The search field contracts significantly if one searches for references to *endangered* or "*threatened*" in relation to organisms (as opposed to endangered children in the child protection context, for example). Only four statutes deal with those.

Figure 4. The coastal Douglas-fir ecosystem, a provincial conservation priority providing habitat for many designated *species at risk*, has been substantially altered through urban and rural development, especially on southern Vancouver Island. Victoria, BC. 27 July 2001 (Michael I. Preston).

Two, the *Ecological Reserve Act* and *Freedom of Information and Access to Privacy Act*, have little more than passing reference. The *Forest and Range Practices Act* (FRPA) and its *Government Action Regulation* provide for 'at risk' designation of many more species than does the *Wildlife Act*. The *Wildlife Act*, administered by the Environment Minister, allows designation of mammals, birds, reptiles, or amphibians, with no designation of fish, invertebrates (Figure 5) or plants. Therefore the Minister of Environment has used FRPA to designate many species, and plant communities, as 'at risk' in order to implement the protections afforded by FRPA covering forest and range activities. Under FRPA that minister has also designated many more wildlife (mammal, bird, reptile, amphibian) species as at risk than have been designated under the *Wildlife Act*. And what of that *Wildlife Act*? This question has a potentially hypothetical answer, depending on whether one considers the *Wildlife Act* as it is, or as it may become. As described by Jones and van Drimmelen (2007) the *Wildlife Act*'s current provisions for *endangered* and *threatened* species are very weak. Recall that only Cabinet, not the Minister, can designate such species; it requires passing a regulation. Fish, plants and invertebrates are not eligible for designation at all. A bird, amphibian, reptile, or mammal that is designated as *endangered* or *threatened* is protected from hunting, trapping, or deliberate killing, but not from incidental killing. No person can allow his or her dog to pursue an *endangered* or *threatened* species. Essential habitat is not protected unless the area containing the habitat is provincial Crown land for which administration is transferred, with full Cabinet permission, from another Minister to the Minister of Environment and the Minister then goes on to designate that land as a "wildlife management area". As one would expect, this cumbersome process is rarely invoked.

Scoring the current provincial *Wildlife Act* for the six important attributes of effective legislation for *species at risk*, one would assign a failing mark of 17% because only one of the six applies – political designation:

Figure 5. This invertebrate, a Black Chiton (*Katharina tunicata*), is a common mollusc along our marine shores but cannot be included in "wildlife" under the provincial *Wildlife Act*. Portland Point, BC. 2 August 1969 (R. Wayne Campbell).

1. the scope is extremely narrow;
2. there is no mandatory provision for scientific listing;
3. there is political designation;
4. there is very limited protection of organisms, and no mandatory provision for recovery;
5. there is virtually no authority for protection or restoration of habitat; and
6. with those gaps, there cannot be effective enforcement.

Jones and van Drimmelen (2007) noted that some improvements might be on the way. In 2004, in response to the spectre of having the federal government take over the conservation of some *species at risk* in British Columbia under the federal *Species at Risk Act* (more on this statute below), the British Columbia government passed some amendments to the *Wildlife Act*. These amendments would allow any species of organism other than bacteria and viruses to be designated as *endangered* or *threatened*, so these amendments are a step in

the right direction. However, it would still require a Cabinet regulation for designation. Protection would be increased somewhat, so that causing intentional or lasting harm to an *extirpated*, *endangered* or *threatened* species would be prohibited. There would be very little change in terms of protecting essential habitat for designated species. It would also be illegal to damage or destroy the residences of such species, wherever located (Figure 6). Beyond that, however, habitat to be protected could still only be designated by the Minister within a wildlife management area (*e.g.,* provincial Crown land where administration has been formally passed from another Minister to the Minister of Environment).

Scoring an amended *Wildlife Act* for the attributes of effective legislation for *species at risk* would still produce a failing grade of 42%; perhaps two and a half of the attributes would apply – broad scope, political designation, and maybe a half-point for some protection of the organisms:

1. the scope is broad;

2. there is still no provision for scientific listing;

3. political designation continues;

4. there is still very limited protection of organisms, and no provision for recovery;

5. there is very limited authority for protection of habitat (residence or dwelling place only), but nothing for restoration of habitat; and

6. with those gaps, there still cannot be effective enforcement.

There is one overriding problem with the amendments. Although passed in May 2004, they cannot actually come into force unless provincial Cabinet passes a regulation to that effect. Almost four years later, Cabinet has not done so.

So much for statutes in British Columbia that refer to "wildlife", *endangered* or *threatened*. What about the phrase *species at risk*? No hits in the statutes at all. However, that is in the statutes. There is some encouraging law below the surface of another

Figure 6. Under the British Columbia *Wildlife Act* the *endangered* Burrowing Owl (*Athene cunicularia*) is protected on Crown and private lands throughout the province. Salton Sea, CA. 23 December 2005 (Michael I. Preston).

British Columbia statute that has been more effective in protecting habitat of some *species at risk* than wildlife-oriented statutes such as the *Wildlife Act.* Reading the *Forest and Range Practices Act* (FRPA) gives little indication of habitat protection for *species at risk*. It does not deal much with wildlife generally or with *endangered* or *threatened* species. All one finds is one small section, near the end of the Act, which lets Cabinet pass regulations that would allow the Minister of Environment to establish "wildlife habitat areas" and "general wildlife measures". Digging deeper in FRPA's *Forest Planning and Practices Regulation*, one finds that government has an objective of conserving some habitat required for "*species at risk*". There is a serious risk of confusion here, because the regulation's *species at risk* are not the same *species at risk* referred to in the federal *Species at Risk Act* and not even the same *species at risk* that would encompass *endangered* or *threatened* species under the *Wildlife Act* if the 2004 amendments ever come into force. FRPA *species at risk* are only

those that the Minister of Environment orders, under another FRPA regulation, the *Government Action Regulation*, as *endangered* or *threatened*. The potential list of species under this FRPA regulation is broader and better than that under the *Wildlife Act*, as it includes all vertebrates, some invertebrates, plants, and plant communities. Although the same Minister has chosen to designate only four species as *endangered* or *threatened* under the *Wildlife Act*, that Minister has designated 85 *species at risk* under the *Government Action Regulation*. It is important to recognize that the list does not include all *endangered* or *threatened* species. It is restricted to just those vertebrate, invertebrate, and plant species and plant communities, that require special management attention to address the impacts of forest and range activities on provincial Crown land (Figure 7).

The *Government Action Regulation* also lets the Minister of Environment establish "wildlife habitat areas" for *species at risk*. Within such areas, "general wildlife measures" set out seasonal or operational restrictions on forest and range practices to mitigate adverse impacts on the *species at risk* for which each wildlife habitat area has been established. There are now some 700 wildlife habitat areas in British Columbia, covering some 7,500 km^2 of habitat.

The final piece of the legislative puzzle for *species at risk* in British Columbia is more of a spectre than a law of general application. This is the federal *Species at Risk Act* (SARA), the process that was previously explained by Jones and van Drimmelen (2007). Briefly, it allows for:

- Protection of federally-listed *species at risk* on federal lands (Figure 8),
- Protection on private and provincial lands only for federally-regulated aquatic and migratory bird species, and
- A potential "safety net" to let the federal government provide protection if the federal government concludes that a province is not doing enough to protect *species at risk*.

Thus, the safety net only kicks in if the federal government concludes that the provincial government

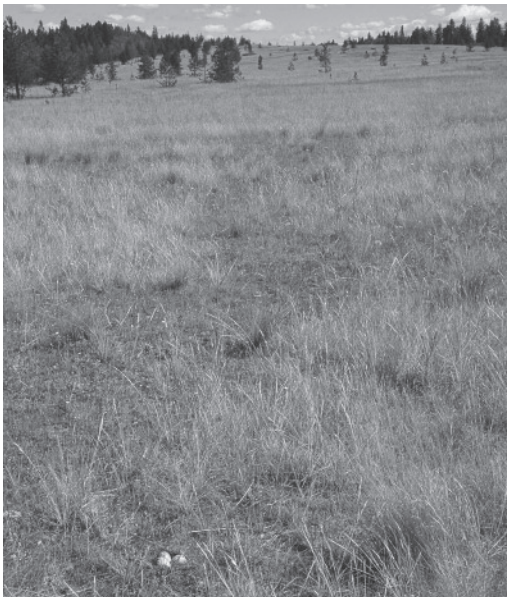

Figure 7. The *blue-listed* Long-billed Curlew (*Numenius americanus*), a ground-nesting species (see lower left for nest with eggs), requires special management considerations in grassland habitats in British Columbia. Meldrum Creek, BC. 25 May 2002 (R. Wayne Campbell).

badly mismanages *species at risk*. Why all that deference? Blame the Constitution. In 1867, they were not too concerned about wildlife management, and when they divided up the regulatory authority, they used arcane categories. Provinces were assigned laws in relation to property plus, later, conservation and management of non-renewable natural resources and forestry resources and environment generally. Except for the one percent of British Columbia that is federal land, the province administers all the components of wildlife and wildlife habitat including land, vegetation, and the organisms themselves (unless they cross international boundaries, and are managed under federal legislation like migratory birds and marine mammals). That leaves the federal government with authority over fish and their habitats, First Nations matters and military and airport lands, plus matters that are of interprovincial or national interest.

Figure 8. The federal *Species at Risk Act* (SARA) only provides protection for designated migratory species and aquatic species on all lands, and other designated species only on federal lands (*e.g.,* lightstations, airports, reserves, national parks, etc.), about one percent of all land in the province. Active Pass, BC. March 1975 (R. Wayne Campbell).

Basically, the Constitution leaves the federal government almost no authority to regulate "*pecies at risk* or their habitats; that is provincial turf. The only way the federal government can get involved is if *species at risk* becomes a national concern. Given international treaty obligations such as the *Convention on International Trade in Endangered Species* (CITES), there is a national concern if a province lets species be extirpated. From this toehold comes the federal safety net for *species at risk*. The *Species at Risk Act* primarily protects the wildlife found on the polka dots of federal lands (see Figure 8). In addition, SARA gives the provinces the first opportunity to protect federally designated *species at risk* through their laws. If the province does not act, SARA's "safety net" could be invoked. If the federal Minister finds, after consulting a provincial Minister, that a species or its residence is not effectively protected, the federal cabinet may order that, for a given species in a province, it is an offence to harm a listed *extirpated*, *endangered* or *threatened* species. The federal cabinet can also make it an offence to damage the residence or critical habitat of such species in a province or territory.

It would likely take some very poor management (and not a few court challenges to federal jurisdiction) before the federal government would intrude into provincial matters under SARA. However, the provisions are effective as a threat to the provinces – come up with recovery strategies for federally listed *species at risk*, or risk the heavy hand of the federal government.

Conclusions

1. Effective legislation to conserve *species at risk* requires six attributes. British Columbia's legislation has few of those.

2. The provisions of the British Columbia *Wildlife Act* to conserve *species at risk* are extremely limited, and implementation of those provisions has been cumbersome and ineffective. If amendments proposed in 2004 are brought into force, the amended provincial Act will be improved, but still limited and likely ineffective.

3. Regulations under the *Forest and Range Practices Act* have been quite effective in conserving the habitats of some *species at risk*. However, its coverage is restricted to those *species at risk* that are particularly vulnerable to harm from forest or range practices. It would be helpful if similar legislation covered other development activities, such as agriculture or urban development that also have significant effects on *species at risk*.

4. The provisions of the federal *Species at Risk Act* are quite comprehensive but have very limited application in British Columbia. However, that Act does serve as a threat to encourage the British Columbia government to better conserve *species at risk* in its provincial laws.

The limited scope of protection of *species at risk* in British Columbia calls into question British Columbia government's approach. Use of several "coordinated" Acts does not appear to be effective in managing, protecting or conserving *species at risk*. It would appear that stand-alone *species at risk* legislation has long been, and continues to be, required. What would such an Act look like? There is no reason to re-invent this wheel; one need look no further than Ontario. Ontario's pending and progressive new *Endangered Species Act, 2007* seems to have it all:

1. broad scope – covering a "species, subspecies, variety or genetically or geographically distinct population of animal, plant or other organism, other than a bacterium or virus, that is native to Ontario";

2. scientific listing – by an independent committee with "relevant expertise from a scientific discipline such as conservation biology, population dynamics, taxonomy, systematics or genetics or aboriginal traditional knowledge";

3. political designation – by a Minister being empowered to request the committee to reassess its listing;

4. protection of listed organisms from killing, harm, capture, trade, etc., coupled with a requirement for recovery strategies;

5. protection and restoration of habitat – broadly defined as "an area on which the species depends, directly or indirectly, to carry on its life processes, including life processes such as reproduction, rearing, hibernation, migration or feeding", and including provision for stewardship agreements to protect habitat on private land; and

6. apparently enforceable provisions, including habitat protection orders and fines of up to $1 million.

Literature Cited

Jones, G., and B. van Drimmelen. 2007. Identification and designation of species at risk in British Columbia – Part 1. Wildlife Afield 4:57-67.

Addendum

In February, the Ontario government posted positions for 22 new *species at risk* biologists in anticipation of the Act coming into force. For more on the Ontario's *Endangered Species Act*, readers can go to http://www.mnr.gov.on.ca/MNR/Csb/news/2007/mar20bg1_07.html.