Green Scene: Some Local Species at Risk

by Elaine Golds

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Short-eared owls, a species at risk, construct nests in tall grass and fly low over meadows in search of small mammals to eat. *Bruce Brandhorst photo*.

In the last *Green Scene*, I described the woefully inadequate programs and policies of, particularly, the federal government but also the provincial government to protect species at risk. But, what are some of the species within the Tri-Cities area that are at risk and what conditions are posing challenges to their continued survival here? These species, about 150 in total, include a number of owls

as well as other birds, small mammals, several species of local amphibians plus assorted plants and invertebrates.

At least two species of owls are threatened by the behavior of barred owls. The barred owl is originally from eastern Canada and was first observed in northern BC in the 1940s. By the 1960s, it had expanded its territory into the lower mainland. The establishment of towns across Canada and associated planting of trees made it possible for this eastern owl to spread into BC with disastrous consequences for the spotted owl, its close cousin, and the smaller western screech owl. The barred owl, like the spotted owl, resides in forests but, unlike the spotted owl, it does not require old-growth forests and can manage just fine in younger forests. The logging industry in BC has created abundant habitat for barred owls while relentlessly destroying the old-growth coastal forests upon which spotted owls depend. In addition, barred owls have a much more diverse diet than spotted owls which have a strong predilection for flying squirrels and red-backed voles. The barred owl is also more aggressive than the spotted owl. This aggressive trait probably accounts for the disappearance of both spotted owls and western screech owls whenever barred owls show up. Several forested areas in the Tri-Cities sustain breeding barred owls. They are now the most commonly observed and heard owls in the lower mainland. We should probably be grateful that one of its favourite prey items is rats.

The lower mainland once had large areas of open grassy habitat along the estuary of the Fraser River. This provided ideal habitat for short-eared, barn and burrowing owls. This land is now increasingly covered by residential areas, airports, industry and highways. As a consequence, burrowing owls have vanished from the lower mainland while the number of resident short-eared owls is probably no more than dozen or so. There are records of both of these owls at Colony Farm Regional Park. Short-eared owls are still occasionally seen there but it has been over two decades since burrowing owls were observed. Barn owls, with their preference for nesting within human-made structures such as barns seem to be faring a little better although they remain a species of concern in BC. At one point, BC was the only place in Canada that had breeding barn owls until these owls moved into southern Ontario a few years ago. Place such as Colony Farm Park, with its protected tall grass meadows, provide significant habitat for both short-eared and barn owls.

Amphibians including the red-legged and tailed frogs as well as western toads are all species at risk. The inadvertent introductions of large voracious bullfrogs as well as green frogs from eastern Canada are, in large part, to blame for the plight of some of these frogs although inadequate protection of ephemeral (seasonal) wetlands is also a serious problem. While provincial legislation offers some protection for salmon streams, the seasonal wetlands which support red-legged frogs and western toads are not protected by legislation. Since most permanent wetlands tend to be taken over by bullfrogs, seasonal wetlands, especially those located within dense forests are essential for the survival of these amphibians.

There is a familiar theme in most of the challenges faced by many species at risk. In general, people tend to cause profound changes in the environment that makes it difficult for many species to continue to breed successfully and survive. Sometime, however, it is possible for volunteers to make significant improvements – even in the absence of appropriate legislation. For example, the installation of nest boxes for purple martins on pilings in the water allowed these swallows to make a successful return to Port Moody in 1996 after an absence of a quarter of a century. Constructing and installing nest boxes for barn owls in regional parks has allowed these owls to nest successfully at Colony Farm and

Minnekhada Parks. Working with local authorities to ensure a new barn roof at Minnekhada Park was constructed in a manner that protected nesting habitat for Townsend's big-eared bats or protecting wetlands in Bert Flinn Park in Port Moody are also ways that local naturalists have helped species at risk. There is a valuable message here: when people have the knowledge and will to make a difference, it is sometimes possible to make significant improvements in habitat that will benefit species at risk. With so many species at risk, it is very important to keep on trying.