

Ecological Reserve # 128, Galiano Island

June 15, 2000

On June 12, 2000, accompanied by Chris Kissinger, Ken Millard and Keith Erickson, I had the opportunity to visit the wetland portions of this ecological reserve. This was the first time in many years that the small lake and surrounding wetlands could be accessed, thanks to the use of a canoe. Around 1990 a beaver had moved into this area and had raised the water level, creating a much larger water body with drowned trees and leaving the dense hardhack stands in deep water. At that time it was feared that the beaver activity had effectively drowned the peatbog vegetation that was located at north end of the central lake, inside the ring of hardhack thickets. Typical peatbog vegetation such as encountered here is unusual in the summer-dry Coastal Douglas-fir Zone and has become very rare as a result of drainage and development. The peatbog portion was considered the most significant part of the reserve.

While obviously not in keeping with the philosophy underlying ecological reserves, removal of the beaver dams was variously discussed. Concerns were raised about the road alongside which the exit stream is located and the beaver dam was lowered by the road maintenance authority. Installation of a “beaver baffle”, a device that would prevent the water level to rise beyond a specific level, was recently considered.

Our recent visit has allayed fears that the rare peatbog vegetation was left impaired by the beaver activity. This is documented by the attached table comparing the species composition from the initial surveys to that recorded on June 12, 2000. Even allowing for expected differences in species numbers between the spring surveys in 1980 and the present early summer survey, the species richness appears to have increased or at least remained the same (59 species in 1980 vs. 78 in 2000). The number of *Sphagnum* species recorded has increased from four to five. Other typical peat bog species such as sundew (*Drosera rotundifolia*), bog cranberry (*Vaccinium oxycoccos*), Cottongrass (*Eriophorum* spp.), Arctic star-flower (*Trientalis arctica*), and beak-rush (*Rhynchospora alba*) all have remained the same. Most importantly, the extent of actively growing peatbog area dominated by *Sphagnum fuscum* has increased considerably.

On the basis of these findings, I recommend, therefore, that the water level be left essentially as it is now. If concerns about the road continue, my recommendation would be that a “beaver baffle” be installed, not to lower the water level below present, but only to prevent it to rise any higher. In case of such an installation, construction should take place in a way that minimizes drawing down the water level (for installation purposes). Installation should also not occur during the growing season, but in the fall where temporary lowering of the water would have less impact on the wetland ecosystem.

A longer-term goal for the protection of the ecological reserve should be the relocation of the road.

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