PRELIMINARY ASSESSMENT OF SELECT FOREST AREAS
FOR ROOSEVELT ELK
(Cervus elaphus roosevelti)
WINTER HABITAT POTENTIAL, USE, & MANAGEMENT
RECOMMENDATIONS IN THE WILSON CREEK WATERSHED
ON THE SUNSHINE COAST OF BRITISH COLUMBIA

Bull Roosevelt Elk in Coastal Old Forest Habitat in Wilson Creek Watershed, 2015
(Bill Legg Photo)

24 October 2017

For:
Elphinstone Logging Focus (ELF)
Box 85, Roberts Creek, BC
VON 2W0

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QUALIFIERS

SECHELT (SHÍSHÁLH) AND SQUAMISH (Sḵwx̱wú7mesh) FIRST NATIONS

As the study area is within the traditional territories of the Sechelt (shíshálh) and Squamish (Sḵwx̱wú7mesh) First Nations, who have never signed treaties, the land is recognised as subject to traditional and legal interpretation of First Nations aboriginal rights and land title, especially in light of the June 26, 2014 Supreme Court of Canada (SCC) ruling on aboriginal title (Tsilhqot’in Nation v British Columbia). The Sechelt (shíshálh) and Squamish (Sḵwx̱wú7mesh) First Nations are currently engaged in the BC Treaty process and are also involved in other government-to-government (G2G) discussions associated with land and resource use in their traditional territories outside the treaty process. Nothing in this report shall abrogate or derogate from any aboriginal title or aboriginal rights of the shíshálh and Sḵwx̱wú7mesh First Nations or any shíshálh and Sḵwx̱wú7mesh members.

RELEVANT REGISTERED PROFESSIONAL BIOLOGIST QUALIFICATIONS

This report was prepared by myself, conservation biologist Wayne McCrory. I am a Registered Professional Biologist (RPBio) in the province of British Columbia. I have an Honours Zoology degree from the University of British Columbia (1966) and have more than 40 years of professional experience. My extensive wildlife and bear work has been published in ten proceedings, in peer-reviewed journals, and in government publications. I have produced 85 professional reports, some peer-reviewed, many involving environmental impacts, mammal inventories, ecosystem analyses, cumulative effects reviews, bear habitat and bear hazard assessments, and bear-people conflict prevention/management plans. My curriculum vitae (CV) is available upon request.

Although I have been doing ecological field research on the BC coast for 30 years, I only recently started field research of Roosevelt elk in 2014 in the Phillips watershed on the BC south coast, and in 2015 on the Sunshine Coast. My coastal ungulate research experience includes a review of the potential impacts of logging on marbled murrelet and Sitka black-tailed deer old-growth potential habitat on the BC central coast. I have done a detailed report on the coastal predator-prey Sitka deer-grey wolf ecosystem, including detailed Sitka deer winter range GIS modeling for Princess Royal Island and adjacent areas, and am a sub-author on another similar report. Elsewhere, I have done extensive ungulate range assessments including Rocky Mountain elk, mountain goats, mule deer, bighorn sheep, mountain caribou. This includes some field research and habitat mapping for some of these ungulate species in Mountain National Parks for the Canadian Wildlife Service and Parks Canada.

As a Registered Professional Biologist in the province of British Columbia, while I have made the best efforts to ensure the accuracy of this review, no liability is assumed with respect to the use or application of the information contained herein.
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SUMMARY AND RECOMMENDATIONS

Field sampling of Roosevelt elk winter range involving three different habitat transects of three early mature or mature/old forests in the Wilson Creek watershed area from March 1-2, 2017 using the suggested Ministry ranking approach indicated that one (transect 1) has low-moderate elk winter range potential, while the other two (transects 2 and 3) have moderate-high elk winter range potential. Transects were selected by the clients. Transect 1 and 2 areas were selected because they are in cutblocks proposed for logging by the Sunshine Coast Community Forest (SCCF).

Studies show that elk and black-tailed deer are susceptible to population declines, and even catastrophic die-offs, if not enough old forest is reserved for the years when severe winter conditions occur. Ministry studies strongly recommended greater protection of Roosevelt elk (and black-tailed deer) winter habitats starting fourteen years ago, as set forth under Section 69 of the BC Forest Practices Code, which spelled out that: ungulate winter ranges are to be permanently established by 2003. Provincial ministries are currently working to delineate these ranges for all of the province’s ungulates by this deadline.

My review concludes that despite these sound conservation planning objectives, neither the province nor the SCCF have taken any action to protect elk winter habitat as legal ungulate winter range (UWR) in the Wilson Creek watershed area, as spelled out under the Code’s section 69 from 14 years ago. Although the community forest’s 2006 management plan acknowledges the need for section 69 habitat protection for wildlife, including species at risk, there is nothing in the plan regarding the need to recognize and properly protect Roosevelt elk in their chart area. A search of the Ministry’s website on approved UWRs indicates nothing has been protected for elk for the Sunshine Coast (see https://catalogue.data.gov.bc.ca/dataset/ungulate-winter-range-approved).

I found that the Wilson Creek watershed transect 1 area and the transect 2 area I surveyed in March have low-high potential for elk winter range, and evidence of at least low winter use by the species, yet these are now currently proposed cutblocks by SCCF. A Google Earth review of forested and logged areas for the Wilson Creek and Elphinstone areas, as well as my 2014 conservation report, suggests that significant areas of potential candidate areas for UWR for Roosevelt elk in the area have already been logged.

In my professional opinion, it would appear that despite the fact that elk are blue-listed and their winter survival is partly dependent on an adequate supply of older forest types, if the intent of section 69 of the Forest Practices Code was to protect relevant coastal elk winter range by 2003, the government should have moved much more quickly to ensure this safeguard was in place on the Sunshine Coast in order to provide more secure winter habitat for the herds they subsequently reintroduced. If anything, the province should have at the very least established a moratorium on logging of existing mature/older forests surviving on the Sunshine Coast, including the Wilson Creek watershed and Elphinstone area, until they had carried out adequate elk winter habitat surveys and apportioned a sufficient amount of protected UWRs to safeguard the restoration of this blue-listed species in the area. As noted by Quayle and Brunt (2003): Several sources of information suggest a negative overall picture of the status and trend of Roosevelt elk winter habitat in British Columbia, which has been degraded by industrial forestry.

Recommendation

I recommend that no further cutblocks in the Wilson Creek watershed and Elphinstone area that include mature/older or maturing fire-originating stands be approved until such time as Elk winter range (UWR) protection measures are in place.
1.0 INTRODUCTION, CONSERVATION BACKGROUND, & STUDY OBJECTIVES AND RATIONALE

NOTE: Note throughout that I loosely use the terms mature, old, or older forests that are technically defined in my Elphinstone Conservation report (McCrory 2014). These forest age categories are more or less consistent with what the Ministry appropriately refers to as maturing fire-originating stands (Gordon and Waghorn 2002). A large wildfire passed through the area, apparently in about the 1860s. Also note that I have used the terms Roosevelt elk and coastal or rainforest elk interchangeably.

In 2014, I completed a comprehensive conservation assessment for the Elphinstone Logging Focus group of the Mt. Elphinstone forest, including field documentation of any use by Roosevelt elk. This research led to a comprehensive report recommending protection of surviving older forests in the area to safeguard high biodiversity values and important Roosevelt elk winter habitats from further threats related to clearcut logging (McCrory 2014). At the time, I found some evidence of elk and coastal black-tailed deer use of older Elphinstone forest types.

Roosevelt elk (Cervus elaphus roosevelti) are a recognized coastal subspecies that has uniquely evolved and adapted to coastal temperate rainforests over millennia. Provincial studies on Vancouver Island demonstrated that, as with coastal black-tailed deer (Odocoileus hemionus columbianus), Roosevelt elk are partially dependent on mature and old-growth forests for foraging, shelter, and escapement from predators. In more severe winter conditions, loss of traditional older forest winter habitat due to clearcut logging has been demonstrated to cause winter die-off. It is likely that older forests with fairly open spacing also offer the best shelter during periodic Pacific coastal gale force storms and heavy rainfall events. The subspecies is also provincially blue-listed. For all of these reasons, I considered them a valid indicator species for my 2014 Elphinstone conservation assessment. The coastal rainforest elk is also widely known as an important cultural heritage and subsistence species for many coastal First Nations and therefore also deserves recognition as a “keystone cultural species” (Garibaldi and Turner 2014, Turner 2007).

Extensive logging of older-aged forested winter range on Vancouver Island has been blamed for severe coastal elk declines in the 1960s. Roosevelt elk were extirpated from the Sunshine Coast prior to 1900, but were later successfully reintroduced by the BC Wildlife Branch. A Lower Mainland Roosevelt Elk Recovery Project (LMERP) was started in 2000 as a response to a combined need both to control the re-introduced Roosevelt elk that had become nuisance animals along the urban fringe of the Sunshine Coast, as well as to continue restocking historic Roosevelt elk ranges in the Lower Mainland (BC Ministry of Environment 2008).

The Ministry’s elk population unit (EPU) for the Sunshine Coast, including the Wilson Creek watershed study area, is called Rainy Gray. Wilson (2012) indicated a population of 60 elk. Three years later, the 2015 Ministry population estimate for this recovery Elk Population Unit (EPU) was 90 animals, still far less than their estimated carrying capacity (MFLNRO 2015).
In terms of habitat needs, studies show that Roosevelt elk occur in coniferous forests of all age classes as well as deciduous forests and non-forested habitats, including early stage clearcuts, wetlands, and vegetated slide paths. According to Brunt (1990), snow depth is important in determining use of winter habitats. During more severe winter events, elk will move into mature and old forest to seek snow interception cover when snow in more open areas deepens enough to cover low-growing plants (>30 cm). According to Henigman et al. (2005), old-growth forest structure provides forage, security cover, thermal cover, and snow interception for Roosevelt elk.

Quayle et al. (2003) provide the following instructive summary:

Elk populations declined significantly on southern Vancouver Island during the deep-snow winter of 1968–1969 when old-growth winter range was unavailable (Nyberg et al. 1990)....Forest harvesting has been largely responsible for the loss of high-quality elk winter range on Vancouver Island. High-quality elk winter range occurs in old forest along valley bottoms or riparian corridors, so elk needs may conflict with the interests of industrial forestry.... Whether threats come from humans or other species, all interactions with Roosevelt elk operate within the vital context of their habitat. For this reason, the greatest threat to the viability of Roosevelt Elk in the long term is the fragmentation of their habitat and the destruction of their winter range. The urban landscape continues to expand into Roosevelt elk habitat, particularly on southern Vancouver Island and parts of the Lower Mainland, and the limited availability of old-growth forest as winter range is reduced by logging. Although it is difficult to account directly for the population effects of broad-scale habitat trends, it is easy to speculate that diminishing habitat quality in the future will only lead to diminishing numbers of Elk on Vancouver Island. In addition to direct effects, such as reduced overwinter survival, the loss and fragmentation of habitat may directly augment other threats: increasing vulnerability to predators, creating problem wildlife situations, and providing greater access for unregulated hunters.

The Wilson Creek watershed area is in what is known as the Chapman Landscape Unit (LU). It needs to be noted that older forests that would provide lower elevation critical winter range for Roosevelt elk is already in short supply. According to the Chapman LU plan (Gordon and Waghorn 2002):

The Chapman LU has a heavy harvesting and natural disturbance history throughout, and particularly in lower elevation BEC units. Advanced second growth and maturing fire-originated stands are the predominant forest cover in the lower portions of the LU (p. 23).

My 2014 review concluded that protection of mature and old forest values in the Mt. Elphinstone area, rather than further clearcutting, would help anchor elk recovery efforts as well as establish a significant old forest ecological benchmark for habitat for the subspecies. My professional opinion was that this would help sustain local numbers for First Nations cultural-ceremonial/heritage uses and subsistence hunting. Preserving surviving old forest elk winter habitat would also help anchor more positively the Ministry’s efforts to meet the proposed provincial Roosevelt elk recovery objective to maintain or restore the contribution of Roosevelt elk to natural biodiversity and ecosystem function. The provincial goal is to see these coastal elk provincially de-listed. My professional opinion at the time was that
restoration of ungulate natural biodiversity could not really be accomplished on the Sunshine Coast if most of the Roosevelt elk’s mature and old forest winter range continued to be subjected to clearcut logging.

At the time, my opinion as a professional biologist was not only based on limited field surveys of the Elphinstone forest, but on previous ungulate research on the Central Coast-Great Bear Rainforest involving a background review of the impacts of clearcut logging on Sitka black-tailed deer winter range, along with the development of habitat models of critical winter range (Darimont et al. 2003, McCrory et al. 2003). Also, further up the south coast from the Sunshine Coast, I conducted field assessments and detailed grizzly bear habitat mapping over a ten-year period in the Phillips watershed and, using Roosevelt elk as another indicator species, found that extensive areas of older forest of their potential valley bottom winter range habitats had been extensively clearcut. The relict Phillips elk population is possibly the only remaining native herd to survive on mainland British Columbia (Quayle and Brunt 2003), so extirpated had the species become. My Phillips baseline research led to a watershed ecosystem recovery plan for the Kwiakah First Nation Aboriginal Title Lands project (McCrory 2017). This included recommendations for improved protection of older forest ungulate winter range under the Ungulate Winter Range (UWR) policy of the provincial government’s Roosevelt elk recovery plan; as well as to meet recovery goals of the 2016 Great Bear Rainforest Order under the Landscape Reserve Design (LRD) process.

Early in 2017, I was commissioned by Elphinstone Logging Focus to carry out further elk winter range habitat surveys of a number of select mature/older forest sites in Wilson creek (adjoining Elphinstone Face) and pass a professional scientific opinion on whether or not they warranted section 69 Ungulate Winter Range (UWR) protection under the umbrella of the province’s Roosevelt elk management plan. I did not assess forest plantations in the general area related to provincial management prescriptions for improving or reducing elk habitat values. For example, these include such actions as single tree selection, better spacing of planted forests, or even: creating large clearcuts that can have the result of reducing the incidence of elk browsing because of the diminished security cover provided to the elk (Henigman et al. 2005, Coast Forest Region: Roosevelt elk Wildlife Habitat Decision Aid).

Although my study was constrained by the short-term duration of the field work and the lack of a Ministry elk winter range habitat map, I stand by my recommendations.

2.0 STUDY APPROACH

The study approach included:

- Extensive background scientific literature review on Roosevelt elk ecology, management, conservation status, and provincial recovery policy and initiatives.

- Field surveys of three potential elk winter habitat areas selected by the client group. The surveys were done by walking wildlife trails or other trails. Distances were estimated and waypoints were recorded on a Garmin GPS unit and later downloaded to a Google Earth Map. Waypoints included wildlife/elk trail locations, start and end points, locations of elk and deer pellet groups, and other evidence of ungulate use. Potential elk winter (Ew) and deer winter (Dw) plant foods were identified from the scientific literature, and each shrub or green plant food community was subjectively ranked in abundance according to a visual sliding scale from Tr (Trace), L (Low),
M (Moderate) and H (High). It was more difficult to quantify the relative abundance of arboreal lichens either intact on tree or as windfall. For such lichens, observations of absence or presence were also recorded.

- All elk winter sign was recorded including pellet groups, relative age of pellet groups, tracks, elk trails, browsing, bedding sites, and so on. Elk winter pellets were distinguished from black-tailed deer pellets by their considerably larger size, the one being about twice the diameter of the other; although it was sometimes difficult to distinguish between what appeared to be smaller, subadult elk pellets or larger adult deer pellets. The number of recent elk pellet groups was computed to an index of xxx pellet groups/kilometer of habitat transect walked.

- I also ranked each survey area using the ranking system for eleven variables, such as slope and slope aspect suggested for field assessment of Vancouver Island elk winter habitats (Appendix III, p. 42. MFLNRO 2015).

3.0 RESULTS

3.1 Results of field surveys

Although the province recognizes that managing habitat is an important component of Roosevelt elk management, it appears that mapping of critical older forested elk winter habitats has not been carried out for the Sunshine Coast. As an alternative, the government’s 2015 Roosevelt elk management plan (p. 11) indicates that *qualitative assessments based on field reconnaissance* are a useful approach and one that is most frequently used. My field surveys were consistent with this approach using the ranking of winter habitat variables (p. 42, MFLNRO 2015) combined with potential elk/deer winter food rankings I have used in ungulate and bear habitat assessments done elsewhere.

On March 1-2, 2017, elk habitat transects were done in three different mature/older forested areas in the Wilson Creek watershed area that confirmed winter use by elk, and deer use of all three sites. Salal and lichen growing on tree trunks and lower limbs or lichen litterfall appeared to be the main available food, with some fern species.

Pellet group indices for each of the three interior forest areas surveyed were:

- Transect 1 - “Wilson Fungal and Wildlife Refuge”: 1.8 Ew (elk) pellet groups/transect km and 4.2 Dw (deer) pellet groups/transect km
- Transect 2 - “Chanterelle Forest” to Wilson Creek watershed: 2.3 Ew pellet groups/transect km and 0.8 Dw pellet groups/transect km
- Transect 3 - “Health Trail”: 0.5 Ew pellet groups/transect km and 4.5 Dw pellet groups/transect km

Although these surveys suggest low ungulate use at the time, it must be kept in mind that the 2015 population estimate for this recovery Elk Population Unit (EPU) is 90 animals, considerably less than the estimated carrying capacity (MFLNRO 2015). Also, old forest habitat goes off the scale of importance to winter ungulate survival during periods of very inclement winter conditions that regularly occur on the coast. Overall, transect 1 was ranked to have a low-moderate elk winter range potential, and transects 2 and 3 have a high winter range potential (Table 1).
I did not attempt to survey 15-20 year-old dense second-growth plantations, but my limited observations are that once a clearcut reaches that stage in the area, shrub vegetation and tree structures are often so thick that these altered habitats may have little value to ungulates over the majority of the rotation period in a manner already well-documented for coastal bears. However, this should be further quantified with more detailed habitat surveys.

**Table 1.** Elk winter range attributes of three Mar.1-2, 2017 habitat surveys using Vancouver Island Elk Winter Range Assessment Variables (Appendix III, p. 42. MFLNRO 2015). H = high, M = moderate, L = low ranking).

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<thead>
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<th>TRANSECT #3</th>
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<td>M</td>
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<td>Relative elk use</td>
<td>1.8 Ew pellet groups/transect km. Travel trails/corridor</td>
<td>2.3 Ew pellet groups/transect km. Higher use in seepages</td>
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3.2 Field transects

**Transect 1.** Ew/Dw(Elk/deer) pellet group/winter habitat surveys: Approx. 2 km up Field Road. Mar. 1, 2017. 9:30 a.m.–11:00 a.m. Known locally as “Wilson Fungal & Wildlife Refuge”

This transect was an approximately 1.5 km loop following a rustic trail and game trails in a mature forest (age class 140yrs. + ?) with some old forest structures. GPS waypoints were taken, including Ew and Dw pellet groups observed. A total of about 800 m of survey transect was done within the unlogged forest with a total count of 2 elk and 5 deer pellet groups. The index would be 1.8 elk pellet groups/transect km and 4.2 deer pellet groups/transect km of interior forest habitat. For the edge (where some elk activity was expected), the index was 0 pellet groups/km.

Salal (L density) was the main potential Ew food of sporadic patchiness except near the west forest–logged interface. Lichen litterfall was common.

Due to the very dense vegetation, it was not considered practical to survey the adjacent densely grown-in cutblocks for pellet groups as they would be difficult to locate and it was unlikely that ungulates used them very much.

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Map 1. Location of three elk winter habitat transects 1, 2 and 3 in Wilson Creek watershed, early March, 2017.
1a-1b
Transect 1a-1b, about 600 m, followed a rustic hiking route that was flagged through the middle of this large forest patch, clearcut on both sides. I recorded 2 elk pellet groups (recent) and 5 deer (fresh to indeterminate age). Few available arboreal lichens for ungulates were observed on lower tree trunks and branches, but litterfall was evident as an available ungulate winter food. Several small ungulate/wildlife trails were noted, while one that appeared more travelled was followed in a north-south orientation for the whole length of the forested habitat, indicating its importance as a biodiversity corridor.

1b-1c
I followed the edge of an estimated 15-20 yr. old plantation forest for about 300 m. The clearcut was inspected at several points and was observed for most of the length a thicket of second-growth Douglas fir with some salmonberry and other species. No ungulate sign was observed and I concluded that at this early seral/early closed canopy stage, ungulate travel and use might be restricted due to the denseness of the vegetation when compared to the ease
of travel through the adjacent unlogged mature older forest. In other words, there may be some temporary benefits of early post-logged clearcuts to ungulates, but there is a much longer period of very limited habitat value due to closed canopy creating poor travel conditions, and shrubs and forbs slowly losing their ability to grow as the forest cover shuts out the sunlight. This has been well documented for coastal forests by Alaback (for discussion see McCrory 2014).

I expected to see the “edge effect” of increased ungulate use but no pellet groups were observed. Increased sunlight along the edge had enhanced the density of the salal understory for approximately 30 metres into the unlogged forest habitat, but no ungulate use of this species was evident.

1c-1d to 1d-1a
This transect left the edge of the cutblock and followed through the unlogged forest for about 100 m and 30-40 m in from the edge of Field road where near 1d what appeared to be the main elk/deer travel trail was intersected again. The block was traversed to the east side of the forest and then the edge followed 100 m back to 1a. No pellet groups were observed.

**Transect 2.** Ew/Dw(Elk/deer) pellet group/habitat winter surveys: Approx. 1 km up Field Road. Mar. 1, 2017. 11:30 a.m. – 2:00 p.m. Known locally as the “Chanterelle Forest” to Wilson Creek and back.

**Map 3. GPS waypoints along Ew transect 2. Wilson Creek watershed.**
Overall, salal (L density) was the main potential Ew food of sporadic patchiness, except near the west forest-logged interface. Lichen litterfall was common.

On this 800 m each way transect (total length 1.6 km), a total of 7 elk pellet groups and 3 deer pellet groups were counted. This gave an index of about 2.3 elk pellet groups/transect km and 0.8 deer pellet groups/transect km. Some concentrated use by elk was noted in a wet area within the proposed new cutblock.

2a-2b
This was a 600 m transect up a trail in a similar type of forest as transect 1 except for some very large old Douglas fir trees that survived the 1865 burn. Part way up, we passed into a Mt. Elphinstone Provincial Park unmarked boundary. 2b was near an open bluff overlook and it was here that a large bull elk had been previously photographed by retired geologist John Davies, who was part of today’s survey group. No ungulate pellet groups were documented.

Salal (L density) was the main potential Ew food of sporadic patchiness except near the west forest-logged interface. Arboreal lichen litterfall was common.

2b-2c
We followed a flagged route 200 m to Wilson Creek. This is in a proposed cutblock outside the park. A seepage was crossed with considerable recent elk sign in about a 100 m area, including 6 fresh pellet groups, numerous tracks, and 1 cropped deer fern (attributed to elk). This also appeared to be a traditional First Nation alder chip harvest area for smoking salmon, etc.

It was difficult to ascertain what elk were feeding on. Sword fern was more common (L) than deer fern (incidental at the site), but the light-coloured arboreal crustaceous lichen was the most commonly observed potential elk winter food item and I suspect that this was the most common food sought at this site of concentrated elk use.

2c-2a
We followed a similar route back. One more elk pellet group was documented along with tracks under a tree with fallen lichens. We also counted 3 deer pellet groups.
Transect 3. Ew/Dw(Elk/deer) pellet group/habitat winter survey. Location was called the Health Trail. March 2. 9:30 a.m. to 1:30 p.m.

Map 4. GPS Waypoints along transect 3. Wilson Creek watershed.

This was a total 2 km loop transect. Salal was of trace density lower down but increased to a high density on the more open ridge area. There was incidental sword fern and deer fern. One elk pellet group, 9 deer pellet groups, and 3 wolf scats were documented. For ungulates, this was 0.5 elk/km transect and 4.5 deer/km transect.

3a-3b
This followed a mountain bike trail up the mountain through old forest for approximately 0.2 km. No ungulate sign was observed.

3b-3c
This followed a route uphill and eastward for about 0.4 km. Near the top, the mature forest cover thins to mossy-lichen open bluffs with an increasingly dense salal understory. In this more open upper section, the light green arboreal lichen (*Usnea* spp. ?) and light-coloured fruticose lichen were very common on the lower tree trunks and branches, which they were not in the older forest community below.

The transect segment ended at the first open bluff. Near here was one (older) deer pellet group and a recent elk pellet group.
3c-3d
This followed up and down along the semi-forested and moss/lichen covered more open granite outcrops for 400 m. Near 3c were 3 wolf scats comprised of what appeared to be ungulate hair. A total of 7 deer pellet groups were recorded.

The salal understory was thick and of high density. At 3d we GPS’ed a small pond in a granite depression that would appear to be important locally to amphibians.

3d-3a
About 1 km. A short hike was made 200 m to a small creek. One deer pellet group was recorded. Back down the mountain to an ATV trail, then a connector trail back to the other trail and the road.

4.0 DISCUSSION

Map 1 shows that the three areas of verified elk forested habitat in question connect to a large mosaic of mature/older mostly native forest or maturing fire originating stands (with some very early single tree selection), which enhances their value as elk winter habitat. Early and recent red cedar bark harvesting by First Nations was also noted in earlier surveys.

The exception is the transect 1 area (Wilson Creek watershed) that has a small area of clearcut between it and the adjacent larger intact forested areas to the southeast. However, even here there is an active ungulate trail running through the centre of this intact forest stand, suggesting localized significance as a wildlife travel and biodiversity corridor including elk.

Two of the surveyed areas (Transects 1 and 2) included proposed new clearcuts by the community.

The question was then asked how well has the province and SCCF adhered to legal elk winter range protection set forth 14 years ago by the Quayle and Brunt (2003) government study on Roosevelt elk that specified “Protection/Ownership:”

Under section 69 of the BC Forest Practices Code, ungulate winter ranges are to be permanently established by 2003. Provincial ministries are currently working to delineate these ranges for all of the province’s ungulates by this deadline.

Following this some nine years later, a follow-up comprehensive discussion paper on BC Roosevelt elk was prepared for the Ministry (Wilson 2012), which again mentions the importance of retaining currently suitable habitat that corresponds to such protection as UWRs. Some three years later, the province released their Roosevelt elk management plan based on Wilson’s report (MFLNRO 2015). One of the recommendations (Item 4, p.21) for this elk subspecies is to: Conduct analyses by EPU to determine if adequate critical winter ranges are designated and, if currently inadequate, work towards protecting additional habitat where gaps exist. In the plan, one now finds 14 years later and despite the 2003 stated provincial goal to have all UWRs in place by that year, that the first phase of Ungulate Winter Range (UWR) designation in the West Coast region was mostly complete but not the South Coast Region, which includes the Sunshine Coast. This 2015 plan claims the delay in UWR designation on the Sunshine Coast is due to relatively recent elk translocations:
… there has been no formal land base budget established for Roosevelt elk UWRs. Although this budget is not established, designation of UWR in the South Coast Region is not precluded where biological rationale for such habitat protection exists. Assessments of the availability of UWR for elk are ongoing and new information will be considered as it becomes available.

In 2006, the SCCF Stewardship Plan spelled out its stated wildlife objectives that would, in my opinion, have included the blue-listed coastal elk:

The objective set by Government for wildlife is, without unduly reducing the supply of timber from British Columbia’s forests, to conserve sufficient wildlife habitat in terms of amount of area, distribution of areas, and attributes of those areas, for

a) the survival of species at risk,

b) the survival of regionally important wildlife, and

c) the winter survival of specified ungulate species.

(p 4: 1.5.2.2 Wildlife: Objectives set by government for wildlife (FPPR s. 7))

Despite significant background information being available, there is actually nothing on elk mentioned in the stewardship plan despite their known re-introduction and all too obvious habitat uses in the community forest’s chart area.

My review concludes that despite these planning objectives, neither the province nor the community forest have taken any action to protect elk winter habitat as section 69 UWR in the Wilson Creek watershed spelled out well over a decade ago. A search of the Ministry’s website on approved UWRs indicates nothing has been protected for elk for the Sunshine Coast (https://catalogue.data.gov.bc.ca/dataset/ungulate-winter-range-approved). The Wilson Creek transect 1 area and the transect 2 area I surveyed in March, for example, have low-high potential for elk winter range yet they are now currently proposed cutblocks by the forest tenure holder, the SCCF. A Google Earth review of forested and logged areas for the Wilson Creek watershed, as well as my 2014 conservation report for the Elphinstone area, suggests that significant areas of potential candidate areas for UWR for Roosevelt elk in the area have already been logged.

In my professional opinion, it would appear that despite the fact that elk are blue-listed and their winter survival is partly dependent on an adequate supply of older forest types, if the intent of section 69 of the Forest Practices Code was to protect relevant coastal elk winter range by 2003, the government should have moved much more quickly to ensure this safeguard was in place on the Sunshine Coast in order to provide more secure winter habitat for the herds they subsequently reintroduced. If anything, the province should at the very least have established a moratorium on logging of existing mature/older forests surviving on the Sunshine Coast, including the Wilson Creek watershed (and the Elphinstone area), until they had carried out adequate elk winter habitat surveys and apportioned a sufficient amount of protected UWRs to safeguard the restoration of this blue-listed species in the area. After all, Quayle and Brunt (2003): Several sources of information suggest a negative overall picture of the status and trend of Roosevelt Elk winter habitat in British Columbia, which has been degraded by industrial forestry.
5.0 LITERATURE CITED OR CONSULTED


APPENDIX 1. BACKGROUND ON UNGULATE WINTER RANGE (UWR) MANAGEMENT  http://www.env.gov.bc.ca/wld/frpa/uwr/approved_uwr.html

An Ungulate Winter Range (UWR) is defined as an area that contains habitat that is necessary to meet the winter habitat requirements of an ungulate species. UWRs are based on our current understanding of ungulate habitat requirements in winter, as interpreted by the Ministry of Environment (MOE) regional staff from current scientific and management literature, local knowledge, and other expertise from the region. Sections 9 and 12 of the Government Actions Regulation of the Forest and Range Practices Act outline the regulatory authority for establishing UWRs.

In August 2003, a Memorandum of Understanding (MOU) on the Establishment of Ungulate Winter Ranges and Related Objectives was developed between MWLAP, the Ministry of Forests (MOF), and the Ministry of Sustainable Resource Management (MSRM). The purpose of the MOU is to expedite and facilitate the orderly confirmation and establishment of ungulate winter ranges (UWR) and related objectives across the province in order to support the Forest Practices Code and the new Forest and Range Practices Act (FRPA). The MOU clarifies general ministry roles and responsibilities, and outlines procedures and considerations to facilitate timely delivery of this initiative. It replaces previous agreements concerning coordination, administrative processes, and consultation requirements.

The MOU identifies three types of UWRs and objectives. The intent is to facilitate, through due process, the cooperative development of objectives to support the FRPA while at the same time maintaining the foundation of stakeholder support, where UWRs and objectives have been established through Cabinet-approved strategic land use planning processes.