

# Bibliography of Environmental Research Funded by the Skagit Environmental Endowment Commission and Related Publications

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## Summary

As the first phase of a project to help direct future funding in the area of Conservation Biology by the Skagit Environmental Endowment Commission (SEEC), an EndNote bibliography was created with citation information, summaries and locations of reports from biological research and planning projects funded by SEEC prior to 2004. A total of 116 SEEC-funded reports were located and summarized, with only 11 projects missing reports, and 5 reports pending from the authors. The bibliography also includes published studies from the upper Skagit valley and adjacent areas not funded by SEEC, and some indexed government publications. Locations of other bibliographies for the area, and other possible sources of information are presented.

Environmental projects funded by SEEC have emphasized fisheries management and rare species, followed by game species, species sensitive to management and other animals. Population inventories are by far the dominant type of study. Recommendations arising from this project include: improving access to results of SEEC projects by making reports available at two central offices and electronically, archiving data and meta-data, encouraging scientific peer review of research projects, and requiring cumulative progress reports for multi-year projects. Preliminary suggestions for focusing the overall research program supported by SEEC include: baseline studies for long-term environmental monitoring, landscape-scale comparisons of managed versus protected areas, compilation of effects of the Ross Dam, multidisciplinary projects on specific management issues or a co-ordinating and synthesizing role for projects in the several adjacent jurisdictions.

## Introduction

The Skagit Environmental Endowment Commission (SEEC) funds research and planning studies in environmental fields, along with education, extension, infrastructure, recreation and land acquisition programs. Proposals are evaluated in annual competitions for a total of approximately US\$300,000 per year. The Commission is composed of primary and alternative commissioners appointed by the city of Seattle and the Province of British Columbia. The Commission is supported by staff from both the city and the province. Its scope is defined only by a geographic area – the work must be conducted in the Skagit River watershed upstream of the Ross Dam. The multi-agency structure and broad scope has made it difficult to set priorities for evaluating proposals for environmental research and planning. To help focus future proposal evaluations, SEEC has started a 3-step process to: 1. Review past research funded by SEEC and other conservation biology research within the upper Skagit River watershed, 2. Identify knowledge gaps and research priorities for biodiversity and conservation biology in the upper Skagit, 3. Report on priorities and the broader role of SEEC in biodiversity and conservation work within the watershed.

This report summarizes the first step of the process, the creation of an annotated bibliography of environmental research and studies funded by SEEC and related research in the upper Skagit. In addition to serving as the basis for the second step of gap analysis, we also intend the bibliography to help researchers access past research from the region. The scope of this bibliography was “conservation biology”, in which we included ecosystem mapping, species inventories, autecological studies of species, “game” management, fisheries management and studies of natural disturbances. For SEEC-funded studies, we also included studies of archaeological resources and cultural values, geological processes that might be useful as land-use indicators, park, fire and ecosystem management plans, and related extension products, though we were less diligent in tracking down all of these reports that are less directly related to conservation biology. For work not funded by SEEC, we focused on published papers, reports contained in various government indices and work found incidentally to our search for SEEC reports. A few SEEC reports remain missing, and there are undoubtedly many other non-SEEC

studies in the area; we view the bibliography as an “open document” that should be updated as this other information trickles in, and as new studies are conducted. To help with the second step of the prioritization process, we also summarize the types of studies that SEEC has emphasized in past funding, major gaps that we perceive in past work by SEEC and other agencies in the area, and possible ways to focus future SEEC funding.

## Methods

This project consisted of assembling and summarizing reports from SEEC-funded projects, collecting references to published and some other non-SEEC-funded projects, setting up a bibliography in EndNote and recording observations and recommendations derived from this process.

### *SEEC reports*

We received 3 lists of projects funded by SEEC:

1. A report by Larkin (1999) labeled “B.C.’s Wild Heritage”. This was a SEEC-funded inventory of reports from SEEC environmental projects that were found during site visits to the offices of the various agencies involved in SEEC. It includes reports prior to 1998, and projects funded for 1998.
2. A printout of an Access database provided by Celia Grether (Seattle City Light). This included all SEEC projects funded through 2003.
3. A list provided by Darryll Johnson of the University of Washington.

Combining the list of publications and the project lists was more difficult than might have been expected, because:

- 1) Publication titles were often very different from the project name or proposal title.
- 2) Publication authors may differ from the project applicant, particularly where the project funding was assigned to a government agency rather than an individual.
- 3) Project reports may have been written the calendar year of the project grant, the following year when the grant ended, or the year after (or apparently never, in some cases).
- 4) Multi-year projects may have had different project and publication titles each year.
- 5) Some projects produced more than one report.

Some projects listed in the bibliography as not having a report may therefore actually have a report that was simply not recognized as being from that project. Most discrepancies between the different project lists have been resolved, but we highlight these sources of confusion as problems that might be addressed in a future system to better track SEEC-funded projects and products.

Reports were obtained from the offices of BC Parks in North Vancouver (contact: Chris Tunnoch), BC Ministry of Water, Land and Air Protection (WLAP) in Surrey (contact: Jack Evans) and Seattle City Light (contact: Celia Grether). The shelves housing these reports in each office were checked, which uncovered a few more reports from SEEC-funded projects (not included in Larkin 1999, or post-1998) as well as some non-SEEC work from the upper Skagit. We searched for reports that were expected from Larkin (1999) but not found in these offices, or reports for other projects on the SEEC lists, by:

1. Contacting biologists in the other offices associated with SEEC:

- a) Judy Millar, BC Parks Penticton Office (responsible for Manning Park and area) (250 490 8200) to ask about projects with funding to BC Parks or BC Ministry of Environment. Judy sent a parks bibliography, 2 reports and information on 2 missing studies.
- b) Bob Kuntz at North Cascades National Park (NCNP; 360 856 5700 ext. 368) to ask about projects with funding to NCNP or National Parks. Bob referred the request to Pat Young, who provided the summary of the gray wolf study and information on the aerial photo archive.
- c) Bill Gaines at Okanogan National Forest (509 664 9232) to ask about projects with funding to that forest. Bill sent the abstract for the spotted owl survey report and referred us to Bob Naney (509 997 9744), who sent the abstract for a grizzly bear project that included a SEEC-funded study.
- d) Kendrick Marr at the Royal BC Museum for information about a 1990 plant catalogue funded by SEEC. He referred the question to Adolph Ceska, who was involved in the project.

2. Contacting authors for reports or projects where an individual author was identified:

Tanya Luszcz (several bat projects – responded with reports),  
 Denis Knopp (ecological study of the Northern Cascades – sent report),  
 Laura Friis (forwarded to sub-contractor for missing project, John Richardson – report obtained),  
 Geraldine Allen (rhododendron phase III – no response yet)

3. Searching for information on the missing reports or their projects on the internet and in government publication databases. This revealed a few additional related studies.

*Non-SEEC projects*

Some planning documents for the parks and managed forests in the upper Skagit, not funded by SEEC, were found with the SEEC reports in the government offices. These park management plans, fire management plans and timber supply reviews were included in the bibliography. They are an opportunistic subset, rather than a complete set, of all planning documents for these areas.

Published papers from the upper Skagit (above Ross Dam) and surrounding areas were found by searching BioSys (Biological Abstracts), TreeCD (primarily forestry references), and WilsonWeb (Web of Science) publication indices for any references containing “Skagit”, “North Cascades”, “Manning Park”, “Manning Provincial”, “Ross Lake” or “Ross Reservoir”. The results were examined to find biological studies occurring in the upper Skagit or adjacent parks. We excluded studies only in the lower Skagit valley (below Ross Dam), including many agricultural studies, in the Skagit estuary or not related to conservation biology.

The following web-based government bibliographies were searched for the same terms:

- BC Ministry of Forests library (which incorporates the library of various BC environment ministries) <http://www.for.gov.bc.ca/hfd/library/>
- US Forest Service PNW Research Station <http://www.fs.fed.us/pnw/publications/index.shtml>
- North Cascades National Park <http://www.nps.gov/noca/nat.htm>
- Washington Department of Fish and Wildlife <http://wdfw.wa.gov/wildlife.htm>
- BC Parks <http://wlapwww.gov.bc.ca/bcparks/>
- BC Government Publications <http://www.publications.gov.bc.ca/>
- Natural Resources Information Network (NRIN) <http://www.nrin.org/>

Relevant publications from these sources were included in the bibliography. However, we did not have extensive time to do these searches, and the publication lists are likely to be updated; users should therefore consult these websites directly for more thorough reviews.

References from 3 additional sources of information about studies in the upper Skagit valley and adjacent areas were not incorporated into the bibliography. Researchers during thorough reviews of studies in particular environmental fields in the area should certainly consult these sources. Providing links to these sources would also be recommended for any future web-based delivery of SEEC reports:

1. North Cascades National Park bibliography. Ron Holmes of North Cascades National Park provided text files containing citations, some with abstracts, for reports in the NCNP bibliography. These reports include 263 on animals, 136 on plants, 51 on geological features and 19 on air quality in the Skagit River valley and surrounding areas. Many of these reports are housed at the NCNP office. Because they arrived just before this project was due, we have not added these references to the bibliography, but could make the text files available to SEEC.
2. National Biological Information Inventory (NBII): Many sources of relevant information are available through the NBII, including survey results, inventories and geospatial data on species and habitat coverages. We suggest that users refer directly to the NBII site, <http://www.nbii.gov/index.html>.
3. BC Parks bibliography: Judy Millar of BC Parks in Penticton provided a spreadsheet of 206 publications or reports involving Manning and Skagit Valley Provincial Parks (without summaries). We did include 27 of the most relevant in the bibliography.

We checked for other websites with relevant publications, using a Google search for “Skagit”, and following links that seemed relevant. This proved to be an inefficient way to obtain information about specific research projects.

We have included some references cited in the reference lists of SEEC reports and other publications. We spent a limited amount of time on this process, which could produce an exponential growth of related references.

### *Bibliography structure*

The bibliography contains the following main fields:

Author(s): Names as given in the report or publication, sometimes a company or government agency.

Year: Year the report or publication was produced. Some unpublished SEEC reports did not have a date. For these, we assumed that the report was written in the year following the fiscal year of the grant. (e.g., 1995 for a report on a project funded in 1994-95 fiscal year)

Title:

Source: Journal information, government publication series or unpublished report with organization name and location where available.

Summary: For SEEC-funded reports, we included the summary or abstract in the original report, if one was provided. In some cases we included additional information or comments (occasionally including caveats when the summary seemed to draw conclusions or recommendations not fully supported by the project’s results). We wrote brief summaries for reports that did not provide their own. For non-SEEC projects, we included published abstracts if available, or our own summaries in a few cases. Other non-SEEC projects

were not summarized. In all cases, we indicated which parts of the summary were from us and which were from the original report.

SEEC project number: Includes “non-SEEC” for projects not funded by SEEC.

Type of report: We classified the SEEC-funded reports or publications as:

- Paper (peer-reviewed publication in journals)
- Government publication (in an indexed series)
- Final project report (unpublished)
- Stand-alone progress report (meaning that it contains information that is not fully covered in a final report, or that no final report was found)
- Progress - see final report (i.e., information in the progress report is covered in the final report; users would only need to read the final report. Also used for “data reports”)
- Extension product (simplified information intended for general public)
- Funded project without a report (for SEEC projects that were funded, but for which a report has not yet been found)
- Ongoing series (e.g., timber supply review reports that are updated every few years)
- Other (e.g., photo archives)

Type of study: We classified the SEEC-funded studies as:

- Natural history survey (primarily anecdotal information, observations, non-intensive counts or taxonomy)
- Inventory – population (designed to indicate population size or density of one or more species, or amount of particular habitat types)
- Inventory – community or species list (designed to enumerate the species present within an area, ecosystem or taxonomic group)
- Applied research (research designed to answer one or more questions of current management concern)
- Basic research (research designed to answer one or more questions driven by scientific theory or simply curiosity)
- Cultural – current (e.g. user surveys)
- Cultural – archaeology (and historical)
- Mapping (of biological features, such as ecosystem types, including aerial photography)
- Literature review (including catalogues of specimens)
- Extension
- Management plan
- Unknown (for studies where no report has yet been found)

These classifications are not all completely distinct, but were intended to provide an overview of where past SEEC funding has been focused.

Field of study: SEEC-funded project's topics were classified as:

- Fisheries
- Game management (harvested terrestrial species)
- Rare or endangered species or ‘elements’
- Sensitive species (species chosen because they are sensitive to some management action, including forestry and reservoir management, but not harvested or rare species)
- Animal ecology
- Plant ecology (also includes fungi)
- Aquatic ecology
- Fire studies and management

- Geology (only studies involving management issues – e.g., slope stability, or long-term environmental monitoring – were included)
- Archaeology
- Forestry
- Cultural
- Miscellaneous

Location(s) of report: Indicates where the project report can be obtained. We hope that eventually all SEEC reports are maintained in at least 2 offices (Seattle City Light and one of the BC MWLAP offices) as well as being available electronically. The “location” field indicates where reports are currently available.

We classified projects where no report has yet been found, if the information could be inferred from the project title or an available proposal.

We did not include a separate field for “key words”, because any field or fields in the bibliography can be searched for particular words or phrases.

#### *Limitations*

Because of the relatively short time available for this review, or possibly because the reports do not exist, we are missing reports from the following projects:

**85-12 Creel census I.** Funding to Washington Department of Game. May have produced one of the fisheries reports included in the bibliography (it is difficult to relate each of these reports to a specific project)

**86-08 Fisheries study II.** Funding to Washington Department of Game. As above.

**87-02 Raptor study.** Funding to BC Ministry of Environment Lands and Parks. A report from the US version of this project, 87-09, is included in the bibliography.

**88-10 Wild rivers study.** Funding to Okanogan National Forest, but project not recognized by either contact in this organization.

**89-11 Wildlife literature review.** Study apparently undertaken by SEEC itself.

**92-15 Grizzly bear study.** Funding to BC Parks, North Vancouver.

**93-12 Ross drawdown vegetation study.** Funding to BC Parks.

**95-06 Nlaka’pamux perspective to the upper Skagit watershed.**

**95-08 Fire management plan – phase II.** Probably at BC Parks, but Judy Millar thinks that the information was all incorporated into the final phase report, which is in the bibliography.

**98-13 Upper Skagit River/Ross Reservoir recreation trout fishery assessment.** Funding to BC Ministry of Environment. May be related to one of the many fisheries reports included in the bibliography.

**00-01 Mushrooms of the upper Skagit.** Report obtained for a 1999 mushroom project, but this appears to be a separate grant.

Other than hoping that they turn up in the future, there is not much we can do to find these reports. For five other reports, the authors have been contacted and will hopefully be sending the reports shortly. One recent project has had its final report delayed, and one extension brochure was not located. All are recorded as “No report found” in the “Type of report” field in the bibliography.

The brief summaries are intended to help users decide whether to obtain the report itself. They do not include all the details of the study. At the same time, readers should also check the original report before relying too heavily on results, conclusions and recommendations reported in the summaries from some studies. Users should also not assume that reported project objectives were fully met.

Non-SEEC references represent only a partial list of all relevant publications, because there are endless pathways to pursue to find all information from a loosely-defined area of interest. The bibliography should be set up as an open document, with some way for users to contribute additional citations. This might be possible through a web-based application, though it would require a human monitor to make sure that only correct and relevant information is entered. Updating the bibliography should also be part of monitoring the completion of future SEEC-funded projects.

In the Methods section, we listed 3 other useful sources of information about studies in the area. These might someday be incorporated into the bibliography (or, users could refer to the 3 other sources directly). Other sources of information about the upper Skagit that might be pursued include:

- Records from the Conservation Data Centres in BC and Washington
- Records and publications from provincial, state and university museums
- University theses
- Conference proceedings
- Project lists from other funding agencies, such as NSF in the U.S. and FRBC/FIA/FII/FSP in B.C.

## Results

The bibliography includes 116 reports from SEEC-funded projects, 18 SEEC projects currently lacking reports, and 122 additional non-SEEC references. There only appeared to be 2 peer-reviewed publications from SEEC-funded environmental projects, but there may be other papers that we did not connect to SEEC funding.

Fields of studies of the SEEC-funded environmental reports were dominated by fisheries and rare and endangered species (Table 1). Sensitive species (sensitive to management, but not rare or endangered), game species, and other animals were a secondary group, while fire ecology, plant studies and aquatic ecology had few reports. (Note that rhododendron studies were included with rare species, rather than as plant studies.) Almost all the fisheries studies were classified as population inventories, as were the majority of studies of rare and endangered species, sensitive species and game species. The fire reports were mostly planning studies, rather than research. Relatively few publications were classified as applied or basic research. Only 3 reports were explicitly literature reviews, though planning studies did review some relevant information in their fields.

**Table 1. Summary of types of study and fields of study for SEEC-funded environmental reports in the bibliography<sup>1</sup>.**

	Fisheries	Rare and endangered	Sensitive species	Game species	Other animals	Fire	Plants	Aquatic	Misc. <sup>2</sup>	Total
Inventory-population	28	17	7	7			1			60
Inventory-community		4		3	7		4		1	19
Planning	2					5			1	8
Applied research	1		4			1				6
Natural history		2			1			2	1	6
Basic research		5								5
Literature review				1	2					
<b>Total</b>	<b>31</b>	<b>28</b>	<b>11</b>	<b>11</b>	<b>10</b>	<b>6</b>	<b>5</b>	<b>2</b>	<b>3</b>	<b>104</b>

<sup>1</sup> These are the numbers of *reports* in the bibliography, not the number of *projects*. Some projects may produce >1 report. Some missing reports are included, where we could infer the study type and field (e.g., from the project proposal).

<sup>2</sup> Miscellaneous includes reports that include both plant and animal inventories



In addition to the reports summarized in Table 1, the bibliography includes SEEC-funded reports in: current cultural issues, including user surveys (9), archaeology (4), geology (3), 5 extension products, and 6 reports from mapping projects.

## **Recommendations and Suggestions**

Although not specifically part of this contract, we recorded several points during this compilation that may be useful for the next steps.

### *Requirements for SEEC projects*

Project number and summary: Future compilation or synthesis of SEEC projects would be more efficient if the project number and a one-page summary were required on all reports (as suggested by Larkin 1999). A project number used throughout multi-year projects would help to sort out reports from the same versus related ongoing projects (an issue with some fisheries studies).

Two full sets of hard copies: Hard copies should be provided to Seattle City Light and one of the BC WLAP offices (either the Parks office in North Vancouver, which has been more directly involved with SEEC, or the regional office in Surrey, which is larger and possibly more stable during BC's frequent government upheavals), and to any agencies specifically involved in the work. Existing reports from past studies should be copied and shared among these offices, to provide a complete set of reports in at least 2 offices.

Electronic reports: More importantly, all reports should be centrally archived in electronic form and made available to users. This should certainly be the case for reports submitted in the future. Making these reports available on the Web would be simple, and would enhance their value. Information from future reports should also be entered into the database when they are submitted. Making electronic submission a formal requirement for completion of a contract would prevent future long searches for missing or misplaced reports. A small commitment from SEEC would be required to have someone set up and maintain the electronic repository.

Data archiving: Future access to the data collected with SEEC funding should also be ensured by setting up a formal data archiving system. This would allow the data to be used to address unanticipated future questions, even if the reports themselves become 'dated'. In many cases, well-documented data may end up being more valuable than the report produced by a project. Data archiving requires project proponents to devote some time to documenting the data, including describing the project context, the sampling design, how the data were collected, geo-referencing sampling locations, what specific variables in data files mean, etc. Protocols for these 'meta-data' are well developed. There has also been considerable experience, particularly with publicly-funded data in the U.S., on how to deal with the issue of proprietorship and intellectual property rights. Because data archiving requires a time commitment from the project proponent, this requirement should be specified at the proposal stage and built into the funding agreement.

Final reports and cumulative progress reports: Multi-year projects should be required to summarize all results in a final report. An additional useful approach is to make the yearly progress reports incremental for multi-year projects. That is, the year 2 report would summarize the cumulative results from year 1 and year 2, as well as briefly outlining what was specifically accomplished in year 2. Final reports should be encouraged to combine the project's results with those of related projects, especially those from adjacent areas.

Scientific peer review: Several of the projects and reports examined in this compilation would have benefited from a more thorough scientific review process. That includes advice at the project design stage. Even projects that are merely documenting distribution or occurrence of species are much more useful, particularly for long-term monitoring, if they have a carefully considered and repeatable sampling design and field methodology. Peer review of reports would help ensure that study results are well presented and that conclusions drawn are supported by the study. The proposal review process might favor studies that are intending to produce peer-reviewed products, as well as graduate student thesis work. Academic partners of SEEC could be encouraged to review project reports where journal publications or theses are not appropriate end-products.

Synthesis: More generally, projects that synthesize information from a variety of studies or other sources should be encouraged. This would help combine all the 'pixels' of individual studies into a bigger picture.

#### *Allocation of future SEEC funding*

One observation during our compilation of old SEEC reports was that many inventory studies make relatively little contribution to long-term knowledge. Projects that simply note what species are present in particular areas within the Skagit valley, or even their relative abundance or general habitat associations, seem to be less valuable now than projects that either provide solid baseline values useful for long-term monitoring, or projects that made sound contributions to the scientific knowledge base. An acceptable rationale for a proposed project should therefore not simply be that relatively little is known about a particular group in the upper Skagit area. Instead, the project should demonstrate that it will make a substantial scientific contribution, contribute directly to improving management, or provide reliable baseline measurements for future monitoring.

A related issue is whether funding should focus on projects that collect routine data needed for resource management (e.g., fish population indices), or whether emphasis should be placed on projects that advance the state of knowledge used to improve management decisions. The latter might include adaptive management comparisons of different management practices or policies, or more fundamental biological information that underpins management. The simple measurements needed for yearly management could be considered a standard responsibility of government agencies; adaptive management or basic research that improves management is an incremental contribution that might be more in line with a mandate for environmental improvement.

The overall impression of past SEEC-funded research is a fairly scattered array of individual projects. It would be difficult to synthesize this varied information, or even to describe the overall research program coherently. Some possible focal points that might help provide SEEC with a more coherent program in the future include:

- Long-term indicators of environmental change. The large proportion of protected areas in the upper Skagit, the range of ecosystem types, and its location across the coastal-interior transition make it ideal for monitoring designed to measure long-term environmental change. Projects with this focus would need to measure environmental variables not directly affected by management (e.g., not harvested populations or managed stands). A few focal species or taxonomic groups covering a range of life-history types and requirements could be chosen, as well as broader indices of landscape composition and structure. Projects for long-term monitoring should emphasize obtaining representative samples with repeatable methodologies, ideally at permanent sampling sites. Data archiving would be particularly important here.
- Landscape level effects. The Skagit valley on both sides of the border has large protected areas, and large areas with fairly intensive forest management. This forms a

sort of split-plot design that could be insightful for examining landscape-level management effects, such as effects of habitat fragmentation. Studies with this focus would need to ensure that comparable ecosystems were available to study in the managed and protected landscapes (not, for example, protected alpine habitat versus fragmented valley bottoms).

- Effects of the Ross Dam. The damming of the Skagit River was the original motivation for the establishment of the Skagit Environmental Endowment, but relatively few studies seem to address the effects of the dam. Direct comparisons of the dam's effects are clearly not possible, but studies could be designed to infer some of these effects. Synthesis of information on the effects of the dam might also be worthwhile.
- Multidisciplinary focus on specific management issues. SEEC might consider deciding on one or two major management issues in the valley (possibly including the effects of the dam) and soliciting proposals on a range of organisms or other values affected by the management issue. This could allow synthesis of a broader, multidisciplinary perspective from the individual studies.
- Co-ordinating/synthesizing role. With the involvement of several agencies on each side of the border, SEEC is in a good position to play a role in co-ordinating or synthesizing regional research efforts. Thoughtful synthesis of existing information, combined with targeted projects to fill specific gaps, can make a much larger long-term contribution than many individual isolated projects.

Our brief survey of research in areas adjacent to the Skagit area suggested that there were a lot of good-quality research projects being conducted in the North Cascades National Park Complex. SEEC might consider a closer co-operation with the Park, in terms of supporting projects that would complement the research activities in the Park. This would help to provide an existing research framework in which SEEC projects might make the most contribution.

Final note on EndNote: While this program is useful for producing formatted reference lists, we found it slow or difficult for importing, editing and summarizing references. An Access database of references might be a complementary approach more suitable for some aspects of cataloguing and providing electronic access to reports (and possibly archived data).

### **Appendix 1. Summary printout of bibliography entries.**

This listing contains only the author, year, report or paper title, publication source and SEEC project number (or "non-SEEC"). No publication source indicates an unpublished report. Other fields, including the summary, are included in the full EndNote bibliography. A few odd listings here may be due to quirks in EndNote. We cannot, for instance, figure out how to print out institutional authors correctly (e.g. EndNote prints "North Cascades National Park" as "Park, N.C.N."). These names are entered in the bibliography correctly; a more experienced EndNote user could probably get a better printout. The full electronic version of the bibliography should certainly be consulted for better reference information.

Agee, J. K. and J. Kertis (1987). "Forest types of the North Cascades National Park Service Complex, Washington USA." Canadian Journal of Botany **65**(7): 1520-1530. Non-SEEC.

Allen, G. "Genetic and ecological studies of *Rhododendron macrophyllum* - Phase III". Proj #:96-11.

Allen, G. and S. Ford "Genetic variation and reproductive ecology of *Rhododendron macrophyllum* (Pacific *Rhododendron*) in the Skagit Valley and Manning Provincial Park - phase II". Proj #:95-05.

- Allen, G. A. and S. Ford ((1995?) No date). "Genetic variation and reproductive ecology of *Rhododendron macrophyllum* (Pacific Rhododendron) in the Skagit Valley and Manning Provincial Park - phase I of a two-year project". Proj #:94-06.
- Almack, J. (1986). "North Cascades grizzly bear project annual report 1986." Proj #:SEEC?
- Almack, J., W. L. Gaines, et al. (1993). "North Cascades grizzly bear ecosystem evaluation-Final report." Proj #:SEEC?
- Archives, S. M. (1997). "Skagit Valley Provincial Park management plan (Draft)". Non-SEEC.
- Austin, M. A. (2004). "Grizzly bear recovery planning in the British Columbia portion of the North Cascades: Lessons learned and re-learned." *Ursus* **15**(1): 123-128. Non-SEEC.
- Barnard, T. (1986). "Current status of Black bear, Grizzly bear, Cougar and Wolf in the Skagit River watershed. " Proj #:86-02.
- Barnard, T. (1986). "Current status of deer spring ranges at Whitworth and Pondersoa Meadows, Lower Skagit Valley". Proj #:86-02.
- Barnard, T. (1986). "Rocky Mountain Elk: Current population status and habitat suitability in the Skagit River watershed". Proj #:86-02.
- Barnard, T. (1986). "Status of fur harvesting in the Skagit River watershed, 1970 - 1986." Proj #:86-02.
- Barnard, T. (1987). "Characteristics of the 1986 fall hunting effort and harvest in the Skagit River Watershed." Proj #:86-02.
- Barnard, T. (1987). "Current population status and seasonal distribution of Mountain Goat in the Skagit River watershed. " Proj #:86-02.
- Beckett, K. R. (1969). "16 new bird records for Manning Park, British Columbia." *Blue Jay* **27**(3): 159. Non-SEEC.
- Beechie, T., E. Beamer, et al. (1994). "Estimating coho salmon rearing habitat and smolt production losses in a large river basin, and implications for habitat restoration." *North American Journal of Fisheries Management* **14**(4): 797-811. Non-SEEC.
- Beechie, T. J., G. Pess, et al. (2000). "Modeling recovery rates and pathways for woody debris recruitment in Northwestern Washington streams." *North American Journal of Fisheries Management* **20**: 436-452. Non-SEEC.
- Binney, E. P. and R. W. Fonda (1990). "Drought relations of *Phyllodoce empetrifomis* at timberline in the north Cascades USA." *Bulletin of the Ecological Society of America* **71**((2 SUPPL)): 92. Non-SEEC.
- Bivin, M. (2003). "An overview of the botany forays of 2002 and plans for vegetation studies in North Cascades National Park Service Complex for the summer of 2003." Non-SEEC.

- Björklund, J. and D. Drummond (1987). "Helicopter nesting and habitat survey of Peregrine Falcon, Bald Eagle, and Osprey; and Ground-survey of Spotted, Barred, and Great Grey Owls in the Ross Lake drainage, Washington State". Proj #:87-09.
- Blackwell, B. and M. Coulthard (2001). "Fire management plan for E.C. Manning Provincial Park, Skagit Provincial Park and Cascade Recreation Area. " Proj #:98-14.
- Blackwell, B. A. "Fire management plan, EC Manning Park, Skagit Valley Recreation Area". Proj #:92-13.
- Booth, B. P. (No date (1988?).). "The breeding status of the spotted owl in the Skagit River region of British Columbia. " Proj #:88-08.
- Brakke, D. F. and T. J. Loranger (1986). "Acid neutralizing capacity of lakes in the north Cascades area of Washington state, USA." Water, Air, & Soil Pollution **30**(3-4): 1045-1053. Non-SEEC.
- British Columbia Ministry of Environment, L. a. P. "Upper Skagit River/Ross Reservoir recreation trout fishery assessment". Proj #:98-13.
- British Columbia Ministry of Environment, L. a. P. (1987). "Estimate of the deer populations in the Skagit River watershed." Proj #:SEEC?
- Buffo, M. (2004). "Whitebark Pine (*Pinus albicaulis*) in subalpine forest of the cascade range: a case study of forest structure with management recommendations." Non-SEEC.
- Burrows, J. A. and R. Gellner (1994). "Skagit River trout sampling program: data report". Proj #:94-07.
- Burrows, J. A. and R. Neuman (1995). "Skagit River rainbow trout population trends: Research angling from 1986 to 1994." Proj #:94-07.
- Burrows, J. A. and R. Neuman (1995). "Skagit River rainbow trout population trends: underwater census from 1982 to 1994." Proj #:94-07.
- Burrows, R. (2003). "Glacier Monitoring in North Cascades National Park Service Complex". Non-SEEC.
- Bush, K. (1995). "Preliminary "Letter Report" for an archaeological inventory of unsurveyed crown land, Upper Skagit River, east of Nepopekum Creek area, SW BC". Proj #:95-06.
- Cannings, S. G. (1987). "*Chionea macnabeana*, new record. Alexander, a micropterous crane fly (Diptera Tipulidea) new to Canada." Journal of the Entomological Society of British Columbia **84**: 50-51. Non-SEEC.
- Case, M. (2004). "Fine-scale variability in growth-climate relationships of douglas-fir and lodgepole pine, North Cascade Range." Non-SEEC.
- Catton, W. R., Jr. (1968). "Decision in the north Cascades, Washington state USA. V. The proposals as viewed by a sociologist of recreation." Journal of Forestry **66**(7): 540-546. Non-SEEC.

- Cazares, E. and J. M. Trappe (1990). "Alpine and subalpine fungi of the Cascade Mountains, Washington USA. I. *Hymenogaster glacialis* new species." *Mycotaxon* **38**: 245-250. Non-SEEC.
- Christophersen, R. (2003). "Forest Carnivore Inventory in North Cascades National Park Service Complex." Non-SEEC.
- Christophersen, R., J. Scaberl, et al. (2004). "Forest carnivore inventories in North Cascades, Mount Rainier, and Olympic National Parks." Non-SEEC.
- Cole, D. N. and S. J. Trull (1992). "Quantifying vegetation response to recreational disturbance in the North Cascades, Washington." *Northwest Science* **66**(4): 229-236. Non-SEEC.
- Commission, I. J. (1971). "Environmental and ecological consequences in Canada of raising Ross Lake in the Skagit Valley to elevation 1725. Appendix F. International Joint Commission, Canada and United States." Non-SEEC.
- Commission, S. E. E. "Wildlife literature review". Proj #:89-11.
- Complex, N. C. N. P. S. "Aerial photography of the upper Skagit watershed." Proj #:98-01.
- Complex, N. C. N. P. S. (1994). "Gray Wolf research project, Ross Lake national recreation area / Skagit River provincial recreation area." Proj #:92-20.
- Connor, E. (2003). "Life history and migration patterns of bull trout in North Cascades National Park." Non-SEEC.
- Conservation Data Centre, V., British Columbia (1994). "Skagit River Rare Biological Elements Study: Part 1 - Pacific Rhododendron Communities, Part 2 - Small Mammals, Part 3 - Bats". Proj #:93-06.
- Craig, J. B. (1968). "North Cascades, a different kind of country: North Cascades National Park, northwest USA - proposal: trees." *American Forests* **74**(7): 18-19. Non-SEEC.
- Daly, M. K. (1991). "Forest dwelling songbirds in the Skagit valley, B.C.: development of a wildlife viewing program." Proj #:91-05.
- Desrosiers, J. and C. M. Cadrin (1993). "The Pacific rhododendron (*Rhododendron macrophyllum* D. Don ex. G. Don) communities of the Skagit River watershed, British Columbia. Part 1 of Skagit River rare biological elements study (Andrew P. Harcombe, Project Manager)." Proj #:93-06.
- Dethier, D. P. (1979). "Atmospheric contributions to stream water chemistry in the north Cascade range, Washington USA." **15**(4): 787-794. Non-SEEC.
- District, M. V. R. (2001) "Wolverine distribution survey." Proj #:00-06.
- Douglas, G. W. (1969). "A Preliminary Biological Survey of North Cascades National Park and Ross Lake and Lake Chelan National Recreation Areas." Non-SEEC.
- Douglas, G. W. (1972). "Subalpine plant communities of the western north Cascades, Washington." *Arctic & Alpine Research* **4**(2): 147-166. Non-SEEC.

- Douglas, G. W. and T. M. Ballard (1971). "Effects of fire on alpine plant communities in the north Cascades, Washington." Ecology **52**(6): 1058-1064. Non-SEEC.
- Douglas, G. W. and L. C. Bliss (1977). "Alpine and high subalpine plant communities of the north Cascades range, Washington USA and British Columbia Canada." Ecological Monographs **47**(2): 113-150. Non-SEEC.
- Downen, M. (2003). "Diablo and Gorge reservoirs fishery enhancement and Ross Lake Rainbow Trout captive brood stock program, North Cascades National Park Service Complex." Non-SEEC.
- Dunwiddie, P. W. and R. C. Kuntz, II (2001). "Long-term trends of bald eagles in winter on the Skagit River, Washington." Journal of Wildlife Management, **65**(2): 290-299. Non-SEEC.
- Evans, R. D. and R. W. Fonda (1990). "The influence of snow on subalpine meadow community patterns, North Cascades, Washington." Canadian Journal of Botany **68**(1): 212-220. Non-SEEC.
- Farr, A. C. M. (1986). "A Pacific giant salamander survey and list of herpetological records in the Skagit River watershed. " Proj #:SEEC?
- Firman, M. C. and R. M. R. Barclay (1993). "Bat survey of the Skagit River watershed in British Columbia. Part 3 of Skagit River rare biological elements study (Andrew P. Harcombe, Project Manager). " Proj #:93-06.
- FOCUS (Forest Concerns of the Upper Skagit), W. "A sense of place - A report to participants in "Community Treasures of the Upper Skagit Valley"". Proj #:97-01.
- Ford, S. (1998). "Reproductive and genetic variation of rhododendron macrophyllum (G. Don ex D. Don) at populations in British Columbia and Washington". Proj #:94-06.
- Forest, O. N. (1988). "Spotted owl survey". Proj #:88-08.
- Forsman, E. D. and B. P. Booth (1986). "A survey of the spotted owl in the Skagit River region of British Columbia." Non-SEEC.
- Freeman, S. D. (2001). "Summary of the 2001 results of the harlequin duck inventory". Proj #:01-13.
- Freeman, S. D. and R. I. Goudie (2001). "Harlequin Duck Inventory of the Upper Skagit River Watershed". Proj #:01-06.
- Freeman, S. D. and R. I. Goudie (2001). "Harlequin Duck inventory of the Upper Skagit River watershed." Proj #:00-12.
- Freeman, S. D. and R. I. Goudie (2002). "Harlequin Duck Inventory of the Upper Skagit River Watershed: Interim Data Report Year 1". Proj #:01-13.
- Freeman, S. D. and R. I. Goudie (2003). "Harlequin Duck inventory: Year two". Proj #:02-10.
- Freeman, S. D. and R. I. Goudie (2004). "Harlequin Duck inventory". Proj #:03-03.

- Fuhr, B. (1986). "Skagit River drainage data base for 1:20,000 scale maps." Proj #:86-02.
- Fuhr, B. (1986). "Skagit River drainage data base for 1:50,000 scale maps." Proj #:86-02.
- Fuhr, B. (1988). "Biophysical Wildlife Habitat Mapping of the Skagit Valley". Proj #:86-02.
- Gaines, W. L. and A. L. Lyons (2003). "Crepuscular and nocturnal activity patterns of black bears in the North Cascades of Washington." Northwest Science **77**(2): 140-146. Non-SEEC.
- Gaines, W. L., P. Singleton, et al. (2000). "Conservation of rare carnivores in the North Cascades Ecosystem, western North America." Natural Areas Journal **20**(4): 366-375. Non-SEEC.
- Gellner, R. (1992). "Skagit River rainbow trout sampling program, data report". Proj #:92-18.
- Giblin, D. (2004). "Plant collecting projects at the University of Washington herbarium." Non-SEEC.
- Glesne, R. S. (1998). "Terrestrial riparian arthropod investigations in the Big Beaver Creek Research Natural Area, NCNPS Complex, 1995-1996: Part III, Arachnida:Araneae". Proj #:95-11.
- Glesne, R. S. (2000). "Terrestrial riparian arthropod investigations in the Big Beaver Creek Research Natural Area, NCNPS Complex, 1995-1996: Part IV, Hymenoptera:Formicidae". Proj #:95-11.
- Glesne, R. S., G. Brenner, et al. (2000). "Terrestrial riparian arthropod investigations in the Big Beaver Creek Research Natural Area, NCNPS Complex, 1995-1996: Part V, Analysis of arthropod community characteristics and habitat associations". Proj #:95-11.
- Goff, D. J. R. D. and S. R. Hicock (1993). "Geohazard risk assessment of the Klesilkwa drainage basin." Proj #:92-10.
- Grass, A. (1971). "A barred owl record for Manning Park, British Columbia." Murrelet **52**(2). Non-SEEC.
- Greene, C. M. and T. J. Beechie (2004). "Consequences of potential density-dependent mechanisms on recovery of ocean-type chinook salmon (*Oncorhynchus tshawytscha*)." Canadian Journal of Fisheries & Aquatic Sciences **61**(4): 590-602. Non-SEEC.
- Gregory, S., H. Li, et al. (2002). "The conceptual basis for ecological responses to dam removal." BioScience **52**(8): 713-23. Non-SEEC.
- Gresswell, R. E., W. J. Liss, et al. (1997). "Using mark-recapture methods to estimate fish abundance in small mountain lakes." Northwest Science **71**(1): 39-44. Non-SEEC.
- Griffith, R. P. (1993). "Small lake fish enhancement: Thunder Lake survey 1992, Strike Lake assessment of fish populations 1992, Nicomen Lake survey 1992, Flash Lake assessment of fish populations 1992, Poland Lake survey 1992". Proj #:92-19.



- Guppy, C. S. (2003). "Propertius Duskywing survey: The Skagit Propertius Duskywing (*Erynnis* new subspecies) of the Skagit Valley, BC". Proj #:02-06.
- Gustafson, R. G. and G. A. Winans (1999). "Distribution and population genetic structure of river- and sea-type sockeye salmon in western North America." Ecology of Freshwater Fish **8**(3): 181-193. Non-SEEC.
- Hardy, Z. and D. H. Knopp (2000). "Biomonitoring of vegetation and brown-headed cowbirds in the Skagit Valley Provincial Park". Proj #:99-15.
- Hickey, D. G. and I. W. White (1987). "1987 Canadian Skagit River rainbow trout sampling program". Proj #:86-06.
- Hoffman, R. L., W. J. Liss, et al. (1996). "Distribution of nearshore macroinvertebrates in lakes of the Northern Cascade Mountains, Washington, USA." Archiv Fuer Hydrobiologie **136**(3): **363-389**. Non-SEEC.
- Hong, W. S. (1980). "Hepaticae of the north Cascades range, Washington USA." Bryologist **83**(1): 94-102. Non-SEEC.
- Hood, W. G. (2004). "Indirect environmental effects of dikes on estuarine tidal channels: Thinking outside of the dike for habitat restoration and monitoring." Estuaries. **27**(2): 273-282. Non-SEEC.
- Hunt, W. G., B. S. Johnson, et al. (1992). "Carrying capacity for bald eagles wintering along a northwestern river." Journal of Raptor Research **26**(2): **49-60**. Non-SEEC.
- Interpretive, N. C. N. P. (No Date). "Bears and you in the North Cascades: Safety tips for travel in bear country. " Proj #:92-06.
- Interpretive, N. C. N. P. (No Date). "Wolves in the North Cascades: Questions and answers. " Proj #:SEEC?
- Jakubowski, J. (1999). "1998 High lakes survey, Skagit River watershed, Okanogan National Forest, Methow Valley ranger district". Proj #:98-04.
- Johnston, J. M. (1989). "Ross Lake: The fish and fisheries". Proj #:87-10.
- Jumpponen, A., J. M. Trappe, et al. (2002). "**Occurrence of ectomycorrhizal fungi on the forefront** of retreating Lyman Glacier (Washington, USA) in relation to time since deglaciation." Mycorrhiza **12**(1): 43-49. Non-SEEC.
- Kailin, J. (1995). "Hozomeen fire management study". Proj #:92-03.
- Kauffman, J. M. (1968). "Decision in the north Cascades, Washington state USA. III. A place for a park." Journal of Forestry **66**(7): 533-536. Non-SEEC.
- Kiffney, P. and C. M. Greene (2003). "Tributary Junctions: Hotspots of Biological Productivity and Diversity? " Non-SEEC.
- Kiffney, P. and C. M. Greene (2004). "Network connections: implications for salmon conservation." Non-SEEC.

- King, D. G., A. Grass, et al. (1973). "Observations of the dipper in the Skagit Valley of British Columbia." Murrelet **54**(2): 16-19. Proj #:non SEEC.
- Knopp, D. H. "Manning Park bird checklist". Proj #:98-09.
- Knopp, D. H. (2000). "Ecological Study of the Northern Cascades". Proj #:98-12.
- Knopp, D. H. (2002). "Propertius Duskywing survey". Proj #:01-09.
- Knopp, D. H. (no date). "Bird checklist: Skagit Valley Provincial Park". Proj #:96-10.
- Knopp, D. H. and L. K. Larkin (1998). "Butterflies of the North Cascades". Proj #:97-11.
- Knopp, D. H. and L. K. Larkin (2001). "Propertius Duskywing Study Erynnis propertius". Proj #:02-06.
- Knopp, D. H. and L. K. Larkin (2003). "Propertius duskywing survey: Propertius duskywing study in the Northern Skagit watershed - part 2". Proj #:02-06.
- Kremsater, L. L. (1987). "Non-game animals in the Skagit Valley of British Columbia: literature review and research directions". Proj #:SEEC?
- LaBonte, J. (1998). "Terrestrial riparian arthropod investigations in the Big Beaver Creek Research Natural Area, NCNPS Complex, 1995-1996: Part II, Coleoptera". Proj #:95-11.
- Larson, G. L., G. Lomnický, et al. (1999). "Integrating physical and chemical characteristics of lakes into the glacially influenced landscape of the Northern Cascade Mountains, Washington State, USA." Environmental Management **24**(2): 219-228. Non-SEEC.
- Larson, G. L., C. D. McIntire, et al. (1998). "Phytoplankton assemblages in high-elevation lakes in the northern Cascade Mountains, Washington State USA." Archiv Fuer Hydrobiologie **142**(1): 71-93. Non-SEEC.
- Lattin, J. D. (1997). "Terrestrial riparian arthropod investigations in the Big Beaver Creek Research Natural Area, NCNPS Complex, 1995-1996: Part I, Hemiptera:Heteroptera". Proj #:95-11.
- Lee, R. R. and W. P. Staub (1993). "Role of slope stability in cumulative impact assessment of hydropower development: North Cascades, Washington." Environmental Geology **21**(4): 212-214. Non-SEEC.
- Lepofsky, D., E. K. Heyerdahl, et al. (2003). "Historical meadow dynamics in southwest British Columbia: a multidisciplinary analysis." Conservation Ecology **7**(3): 5. Non-SEEC.
- Lewynsky, V. A. (1986). "Creel survey designs for the Skagit River and Ross Reservoir sport fisheries". Proj #:86-03.
- Light, S. C. "Seattle City Light Upper Skagit watershed photographs project". Proj #:98-05.
- Liss, W. J., G. L. Larson, et al. (1995). "Ecological effects of stocked trout in naturally fishless high mountain lakes, North Cascades National Park Service Complex, WA, USA." Non-SEEC.

- Liss, W. J., G. L. Larson, et al. (1998). "Factors influencing the distribution and abundance of diaptomid copepods in high-elevation lakes in the Pacific Northwest, USA." Hydrobiologia **370**(0): 63-75. Non-SEEC.
- Liss, W. J., G. L. Larson, et al. (2001). "Ecological Impact of Introduced Trout on Native Aquatic Communities in Mountain Lakes, North Cascades National Park Service Complex, WA, USA: Phase III Final Report. " Non-SEEC.
- Liss, W. J., G. L. Larson, et al. (1999). "Ecological effects of stocked trout in naturally fishless high-elevation lakes, North Cascades National Park Service Complex, WA, USA: Phase II. " Non-SEEC.
- Liss, W. J., G. L. Larson, et al. (1996). "Ecological interactions of introduced trout and native biota in high-elevation lakes in the Pacific Northwest." Bulletin of the Ecological Society of America.**77**((3 SUPPL. PART 2)): 268. Non-SEEC.
- Littell, J. S. and D. L. Peterson (2004). "Douglas-fir (*Pseudotsuga menziesii*) growth response to climate variability along biophysical gradients ". Non-SEEC.
- Looff, A. C. (1991). "Ross Lake Rainbow Trout study, 1990-91 progress report". Proj #:90-13.
- Looff, A. C. (1992). "Ross Lake Rainbow Trout study, 1990-91 data appendix". Proj #:90-13.
- Looff, A. C. (1992). "Ross Lake Rainbow Trout survey 1991-92 data appendix". Proj #:91-07.
- Looff, A. C. (1992). "Ross Lake Rainbow Trout survey 1991-92 progress report". Proj #:91-07.
- Looff, A. C. (1993). "Ross Lake Rainbow Trout study, 1992-93 data appendix". Proj #:92-08.
- Looff, A. C. (1994). "Ross Lake Rainbow Trout study, 1992-93 progress report". Proj #:92-08.
- Looff, A. C. (1994). "Ross Lake Rainbow Trout study, 1993-94 data appendix". Proj #:93-11.
- Looff, A. C. (1995). "Ross Lake Rainbow Trout study, 1993-94 progress report". Proj #:93-11.
- Looff, A. C. (1995). "Ross Lake Rainbow Trout study, 1994-95 data appendix". Proj #:94-08.
- Looff, A. C. (1996). "Ross Lake Rainbow Trout study, 1994-95 final report". Proj #:94-08.
- Loranger, T. J., D. F. Brakke, et al. (1986). "Temporal variability of lake waters in the North Cascades Mountains, Washington USA." Water, Air, & Soil Pollution **31**(1-2): 123-130. Non-SEEC.
- Ltd, S. E. C. (2002). "Ecosystem plan: E.C. Manning Provincial Park, Skagit Valley Provincial Park and Cascade Recreation Area. " Proj #:98-15.
- Ltd., A. I. (1988). "Frequency distribution for Skagit Valley user survey". Proj #:87-06.
- Ltd., A. I. (1988). "Skagit Valley user survey". Proj #:87-06.
- Luszcz, T. (2001). "Bats of the northern Skagit watershed year 2000 final report". Proj #:00-14.

- Luszcz, T. M. J. (2001). "Habitat use by forest-dwelling bats in the northern Skagit watershed, BC." Bat Research News **42**(4): 168-169. Proj #:00-14.
- Luszcz, T. M. J. (2002). "Influence of forest ecosystem type on bat habitat use in the Northern Skagit watershed, British Columbia." Bat Research News **43**(4): 164. Proj #:01-15.
- Luszcz, T. M. J. (2004). "Community structure and habitat use by forest-dwelling bats in southwestern British Columbia." Proj #:02-09.
- Maki, M. (2001). "Active management enhances functional values of buffers." Temperate-Agroforester **9**: 4-5. Non-SEEC.
- McLaughlin, J. and R. C. Kuntz, II (2003). "Avian distributions and habitat relationships across North Cascades National Park Service Complex." Non-SEEC.
- McPhail, J. D. and E. B. Taylor (1995). "Skagit Char project, final report". Proj #:94-01.
- Merkins, M. (1993). "Skagit Valley rare biological elements: Skagit small mammal inventory. Part 2 of Skagit River rare biological elements study." Proj #:93-06.
- Merkins, M. (1994). "Survey of small mammals in the Skagit Valley, British Columbia." Proj #:SEEC?
- Michael, J. H., Jr. (1998). "Pacific salmon spawner escapement goals for the Skagit River watershed as determined by nutrient cycling considerations." Northwest Science **72**(4): 239-248. Non-SEEC.
- Mierendorf, R., G. Burtchard, et al. (2003). "The archeology of the Pacific Northwest alpine and subalpine: A multi-park approach." Non-SEEC.
- Mierendorf, R. R. (1993). "Chert procurement in the Upper Skagit River valley of the North Cascade Range, Ross Lake Recreational Area, Washington". Proj #:89-05 & 88-06.
- Mierendorf, R. R. (1997). "An exploratory archeological survey for glassy volcanic rock sources in the Silver Creek watershed". Proj #:96-02.
- Mierendorf, R. R. (2004). "Archeology of the Little Beaver Watershed, North Cascades National Park." Non-SEEC.
- Mierendorf, R. R., D. J. Harry, et al. (1998). "An archaeological site survey and evaluation in the Upper Skagit River Valley, Whatcom County, Washington." Proj #:SEEC?
- Millar, J. "Gray Wolf Study". Proj #:92-14.
- Miller, J. (1997). "Inventory of cross-country recreational impacts in the Ross Lake watershed of North Cascades National Park." Proj #:97-02.
- Miller, M. M. and J. W. Miller (1976). Succession after wild fire in the North Cascades National Park Complex. Tall Timbers Fire Ecology Conference. Non-SEEC.
- Ministry of Environment, L. a. P., Surrey "Raptor study". Proj #:87-02.

- Ministry of Environment, L. a. P., Surrey (1986). "Skagit environment endowment Area, status of wildlife data". Proj #:86-01.
- Moody, R. (2003). "Whitebark pine conservation strategy for the Skagit watershed of BC's protected areas." Non-SEEC.
- Moran, P. (2003). "Persistent Organic Pollution and Heavy Metals in Glacial Fed Lakes and Aquatic Biota in National Parks and Forests of the Puget Sound Basin." Non-SEEC.
- Morgan, C. P., J. Davis, et al. (2004). "Promoting understanding: The approach of the North Cascades Grizzly Bear Outreach Project." Ursus **15**(1): 137-141. Non-SEEC.
- Morgan, R. (2000). "Mushrooms of the Upper Skagit Watershed: PHOTODOC". Proj #:99-04.
- Museum, B. C. P. "Plant Catalogue". Proj #:90-09.
- Nation, N. p. "Nlaka'pamux perspective to the Upper Skagit watershed". Proj #:95-06.
- Nation, S. I. "Fire history / cultural occupation of Chittenden Meadow." Proj #:99-09.
- Nellis, C. H., R. L. Fairbanks, et al. (1974). "Subspecies overlap in mule deer and deer mice in the north Cascades, Washington." Northwest Science **48**(1): **66-71**. Non-SEEC.
- Nelson, T. C., C. E. J. Mussell, et al. (2003). "Upper Skagit native char project". Proj #:02-07.
- Nelson, T. C., C. E. J. Mussell, et al. (2004). "Upper Skagit watershed native char project: progress report 2003". Proj #:03-05.
- Nelson, T. C., J. Rissling, et al. (2002). "Upper Skagit watershed native char project. Year 1 (2001-02) progress report." Proj #:01-07.
- Neuman, H. R. (1988). "Skagit River and Ross Reservoir fisheries management plan". Proj #:87-01.
- Newburger, T. (2003). "Ecological consequences of recreational use: A case study of Trapper Lake, North Cascades National Park." Non-SEEC.
- Ogilvie, R. T. and A. Ceska (1989). "Rare vascular plants of the Skagit Valley British Columbia". Proj #:88-04.
- Ostberg, C. O. and R. Rodriguez (2003). "Hybridization between native westslope Cutthroat Trout and introduced Rainbow Trout in the Stehekin River drainage." Non-SEEC.
- Ostberg, C. O. and R. Rodriguez (2004). "Distribution of native westslope cutthroat trout in the Stehekin River drainage, Washington, and hybridization with introduced rainbow trout". Non-SEEC.
- Parks, B. C. and S. E. E. Commission (no date). "Skagit Valley Recreation Area". Proj #:93-02.
- Parsons, J. K. and R. A. Matthews (1995). "Analysis of the associations between macroinvertebrates and macrophytes in a freshwater pond." Northwest-Science **69**: 265-275. Non-SEEC.

- Peterson, D. L. (2002). "Climatic variability and natural resources in the Pacific Northwest. " Non-SEEC.
- Peterson, D. L. (2004). "Response of western mountain ecosystems to climatic variability and change: The western mountain initiative ". Non-SEEC.
- Peterson, D. W. and D. L. Peterson (1994). "Effects of climate on radial growth of subalpine conifers in the North Cascade Mountains." Canadian Journal of Forest Research **24**(9): 1921-1932. Non-SEEC.
- Pond, R. (2003). "Goodell Creek gravel mine restoration: The response of native riparian terrace vegetation to mulch and soil amendment treatments." Non-SEEC.
- Prichard, S. and M. Case (2002). "Fire ecology and forest communities in Thunder Creek watershed." Non-SEEC.
- Prichard, S. J. (2004). "Spatial and temporal dynamics of fire and vegetation change in Thunder Creek watershed, North Cascades National Park, Washington". Non-SEEC.
- Prichard, S. J. and D. L. Peterson (2001). Forest succession following fire along an altitudinal gradient, North Cascades National Park, Washington, USA. Ecological Society of America Annual Meeting. Non-SEEC.
- Ramsay, M. (2003). "A comparison of the effects of soil amendment and watering regime on germination and establishment of direct-seeded native plant species used in sub-alpine restoration at Cascade Pass, North Cascades National Park. " Non-SEEC.
- Ramsay, M. (2004). "The effects of soil amendment and watering regime on germination and establishment of direct-seeded native plant species used in sub-alpine restoration at Cascade Pass." Non-SEEC.
- Research, K. W. (2001). "Mapping and conversion of existing habitat maps". Proj #:00-15.
- Resources, W. S. (1992). "Recreational use of the Skagit Valley Recreational Area, fall 1991." Proj #:91-04.
- Richardson, J. S. and W. E. Neill (1995). Distribution patterns of two montane stream amphibians and the effects of forest harvest: the Pacific giant salamander and tailed frog in southwestern British Columbia.
- Risvold, A. M. and R. W. Fonda (2001). "Community composition and floristic relationships in montane wetlands in the North Cascades, Washington." Northwest Science **75**(2): **157-167**. Non-SEEC.
- Roberts, A. M. (1968). "Decision in the north Cascades, Washington state USA. I. A forestry association's view of the proposal, western forestry and conservation association, Portland Oregon USA." Journal of Forestry **66**(7): **521-526**. Non-SEEC.
- Romain-Bondi, K. A., R. B. Wielgus, et al. (2004). "Density and population size estimates for North Cascade grizzly bears using DNA hair-sampling techniques." Biological Conservation **117**(4): 417-428. Non-SEEC.

- Rossenau, M. L. and P. A. Slaney (1990). "An assessment and stocking evaluation of rainbow trout in the Sumallo River". Proj #:89-19.
- Rousseau, M. K. (1988). "Heritage resource inventory and mitigation for the Ross Lake Provincial Park campground expansion project, upper Skagit Valley, B.C." Proj #:88-14.
- Rusel, G. (1994). "Quantifying fuel loads and classifying vegetation in the Skagit Valley Recreational Area". Proj #:94-05.
- Schilberg, K. and S. Barrett (No date). "Vegetation and wildlife findings for three ecological reserves in the Skagit River valley." Proj #:93-04.
- Schwartz, A. M. (1986). "The paper dam: The role of the USA Canada International Joint Commission in the resolution of the Skagit River - High Ross dam controversy." Environmental Professional **8**(3): 237-243. Non-SEEC.
- Scott, K. J. (1986). "A data report of Rainbow Trout tagging and test fishing studies in the Canadian Skagit River." Proj #:86-06.
- Scott, K. J., J. den Breejen, et al. (1991). "An assessment of the 1990 Skagit River sport fishery". Proj #:90-01.
- Scott, K. J. and V. A. Lewynsky (1987). "Creel survey of the Canadian Skagit river, 1986." Proj #:86-03.
- Scott, K. J. and G. R. Peterson (1986). "Angler catch and use survey of Ross Reservoir and the Canadian Skagit River, 1985." Proj #:85-05.
- Scott, K. J. and M. J. Staley (1993). "Assessment of the 1992 Skagit River sport fishery." Proj #:92-18.
- Scott, K. J., M. E. Thomey, et al. (1995). "Assessment of the 1994 Skagit River sport fishery". Proj #:SEEC?
- Scott, K. J., A. R. Walter, et al. (2003). "Assessment of the 2002 Skagit River sport fishery." Proj #:02-08.
- Service, B. C. F. (1988). "Fraser timber supply area plan". Proj #:88-02.
- Service, N. P. "Wolves in the North Cascades: Questions and answers". Proj #:92-04.
- Shaw, D. C. and R. J. Taylor (1986). "Pollination ecology of an alpine fell-field community in the north Cascades, Washington USA." Northwest Science **60**(1): **21-31**. Non-SEEC.
- Singleton, P. H., W. L. Gaines, et al. (2004). "Landscape permeability for grizzly bear movements in Washington and southwestern British Columbia." Ursus **15**(1): **90-103**. Non-SEEC.
- Slaney, F. C. (1974?). "10 Abstracts from Seattle City Liht assessments". Non-SEEC.
- Slaney, P. A. and T. I. Godin (1989). "Sumallo River stocking evaluation: progress 1989". Proj #:89-19.

- Smith, M. R., P. W. J. Mattocks, et al. (1997). "Breeding Birds of WA State. Volume 4 in Washington State gap analysis - Final report (K.M. Cassidy, C.E. Grue, M.R. Smith and K.M. Dvornich, eds.) Seattle Audubon Society Publications in Zoology No. 1". Proj #:92-05.
- Smukler, S. (2003). "Customizing soil amendments for ecological wildland restoration. " Non-SEEC.
- Spence, J. R. (1986). "The moss flora of alpine-high subalpine Chowder Ridge area, western north Cascades range, Washington state USA." Canadian Journal of Botany **64**(1): **146-150**. Non-SEEC.
- Spooner, A. M. (2004). "Polocene paleoecology and prehistory of the North Cascades." Non-SEEC.
- Staebler, G. R. (1968). "Decision in the north Cascades, Washington state USA. IV. Random thoughts on forestry, human values and the north Cascades, Washington state USA." Journal of Forestry **66**(7): 537-539. Non-SEEC.
- Stalmaster, M. V. and J. L. Kaiser (1998). "Effects of recreational activity on wintering bald eagles." Wildlife Monographs **137**: 1-46. Non-SEEC.
- Stone, J. H. (1968). "Decision in the north Cascades, Washington state USA. II. Forest or park, a former regional forester's view." Journal of Forestry **66**(7): **527-532**. Non-SEEC.
- Swanson, C. S. (1996). Economics of endangered species: Bald eagles on the Skagit River Bald Eagle Natural Area, Washington. North American Wildlife and Natural Resources Conference 1996. Non-SEEC.
- Taylor, R. J. and G. W. Douglas (1978). "Plant ecology and natural history of Chowder Ridge, Mount Baker: a potential alpine research natural area in the western north Cascades." **52**(1): **35-50**. Non-SEEC.
- Theodoratus, R. J. (1989). "Loss, transfer and reintroduction in the use of wild plant foods in the upper Skagit Valley, Cascade Mountains, Pacific Northwest, USA." Northwest Anthropological Research Notes **23**(1): 35-52. Non-SEEC.
- Tyler, T., W. J. Liss, et al. (1998). "Interaction between introduced trout and larval salamanders (*Ambystoma macrodactylum*) in high-elevation lakes." Conservation Biology **12**(1): **94-105**. Non-SEEC.
- Usher, J. B. (1986). "Skagit River rainbow trout (*Salmo gairdneri*) tagging study, 1984. " Proj #:SEEC?
- Vanbianchi, R. and S. J. Vagstaff (1988). "A Floristic Survey of Big Beaver Valley. " Proj #:86-07.
- Watson, J. W. and D. J. Pierce (1997). "Skagit River bald eagles: movements, origins and breeding population status, progress report 1997." Non-SEEC.



Watson, J. W. and D. J. Pierce (1998). "Skagit River bald eagles: movements, origins and breeding population status, progress report 1998." Non-SEEC.

Welch, S. J., R. C. Kuntz II, et al. (1997). "Distribution and abundance of mountain goats within the Ross Lake watershed." Proj #:96-04, 97-03.

Woodin, R. M. (1974). "Age, growth, survival and mortality of rainbow trout (*Salmo gairdneri gairdneri*, Richardson) from Ross Lake drainage." Non-SEEC.

Wright, R. G. and P. D. Tanimoto (1998). "Using GIS to prioritize land conservation actions: Integrating factors of habitat diversity, land ownership and development risk." Natural Areas Journal **18**(1): 38-44. Non-SEEC.

No author (1986). "Skagit river angling (comments and concerns)." Non-SEEC.

No author (1988). "General management plan North Cascades National Park, Ross Lake National Recreation Area, Lake Chelan National Recreation Area." Non-SEEC.

No author (2000). "Methow Biodiversity Project, Rare Species Inventory and Risk Assessment". Proj #:99-05.

No author (no date). "Experimental floating nest platforms". Proj #:00-08.

**[The following are projects without reports]**

"Creel census I". Proj #:85-12.

"Fisheries Study II (No report located)". Proj #:86-08.

"Glacier change in the Upper Skagit River basin". Proj #:SEEC?

"Grizzly Bear ecosystem mapping". Proj #:88-09.

"Grizzly Bear Study". Proj #:92-15.

"Manning fire management plan - Phase II". Proj #:95-03.

"Ross drawdown vegetation study". Proj #:93-12.

"Wild rivers study". Proj #:88-10.

"Mushrooms of the upper Skagit watershed". Proj #:00-01.

"Spotted Owl survey II". Proj #:89-07.