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JULY – AUGUST 2013

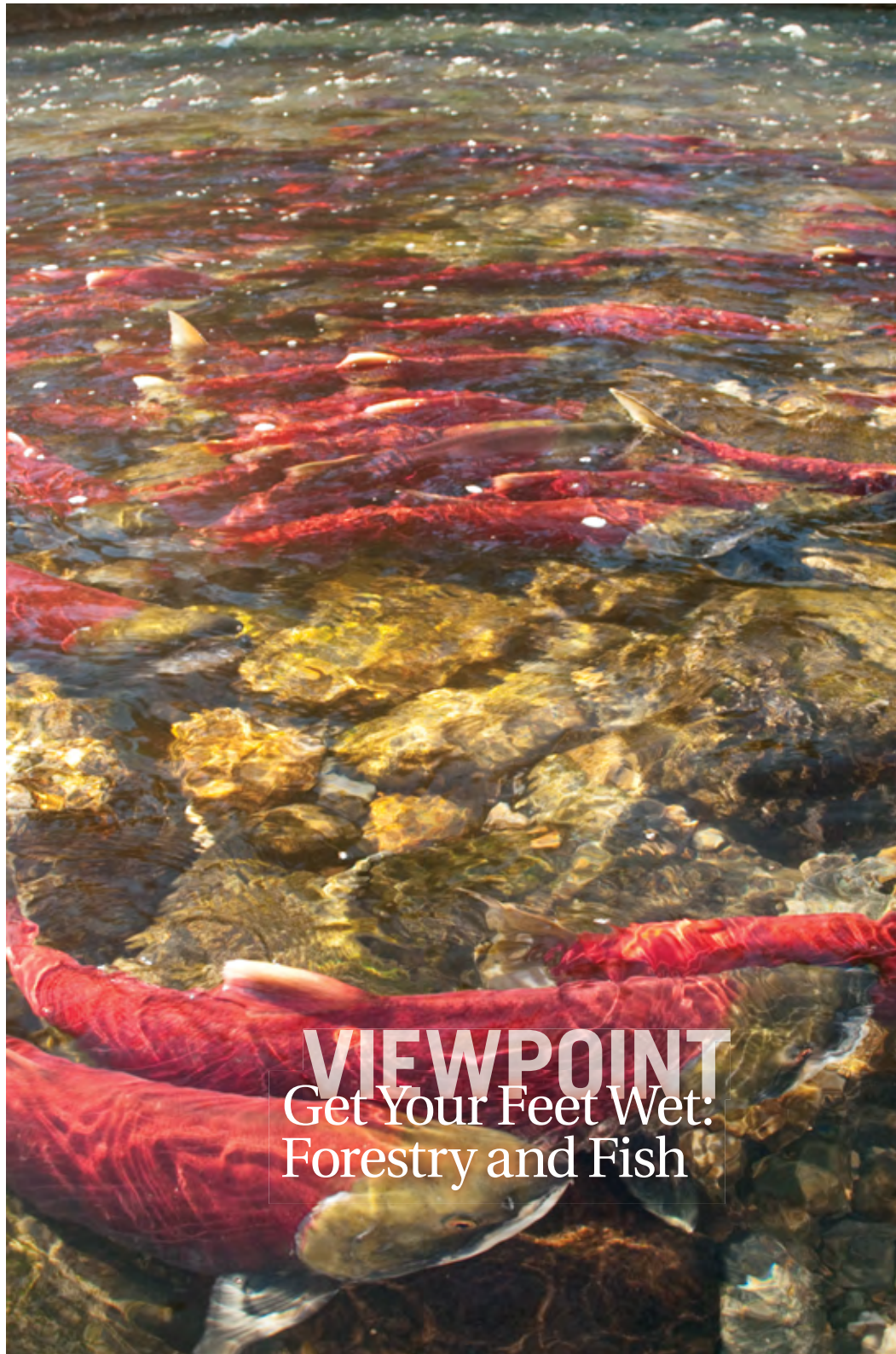
Forest PROFESSIONAL

The Cohen Report:
Is Logging to Blame for
Decline of Sockeye?

**Responsible
Log Handling
on BC's Coast**

Students Visit Mexico
to Observe Community
Forestry in Action

Special Feature:
Results of ABCFP's
Membership Renewal
Survey



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Get Your Feet Wet:
Forestry and Fish

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BC Forest
PROFESSIONAL

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ON BACK COVER



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Put in Your Two Cents

The **BC Forest Professional** letters' section is intended primarily for feedback on recent articles and for brief statements about current association, professional or forestry issues. The editor reserves the right to edit and condense letters and encourages readers to keep letters to 300 words. Anonymous letters are not accepted. Please refer to our website for guidelines to help make sure your submission gets published in **BC Forest Professional**.



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Working on Private Land

Recently, the ABCFP Council had the opportunity to tour Island Timberlands' land near Nanaimo. Joining us on the tour were forest professionals from Island Timberlands, TimberWest, as well as representatives from the Private Forest Landowners Association and the Private Managed Forest Land Council. Everyone on the tour enjoyed learning more about the special challenges of working on private land.

I was most impressed with the passion of the private land professionals we met and the things they were doing, not because they were required to do so, but because their actions were good for the environment and/or the communities in which they operate.

Earning a Social Licence to Operate

Professionals working on private land have a number of challenges when it comes to maintaining their social licence to operate. Harvesting activities take place, literally, in people's backyards. How do forest professionals deal with the concerns of neighbours and the community? It certainly isn't easy and I'm sure you can't please everyone but the professionals at Island Timberlands have had great success working with concerned neighbours and believe that communication is the key.

Telling the community about the legislation private land owners are bound by, as well as explaining the planning process all forest operations on both Crown and private land must go through does help to eliminate some of the controversy.

One example we saw on our tour was how Island Timberlands consulted with a local teacher who is a member of a mountain bike club that uses trails on an area of their land planned for harvesting. This teacher also runs a mountain bike club for students at his school. The forest professionals worked with this teacher to preserve some trails while harvesting around others. They invited the student mountain bikers and their parents to come on a bike tour of the active harvest area and wowed the kids with demonstrations of some of the harvesting equipment.

Improving Environmental Conditions

In the area where Island Timberlands works there is a problem with stream sedimentation both on and off their private lands. In an effort to improve the situation, the forest professionals have made special efforts that include moving roads, building culverts and seeding disturbed areas with native grasses.

In one area we visited on the tour, they moved a spur road to join the main haul road just before a fish creek instead of at its historic location just after the fish creek. Making the decision to move the road wasn't cheap but it greatly reduced the amount of sediment entering the creek and improved the fish habitat.

In a nearby area, the professionals installed culverts to stop seasonal flooding. This action had positive effects for both the stream and Island Timberlands as it allowed the road to be used even in the rainiest weather. Areas close to streams, as well as recently disturbed areas, are regularly seeded with native grasses to help reduce the amount of erosion.

Unique Challenges Bring Unique Solutions

No matter where you work — on private or Crown land, on Vancouver Island or in northern BC — there are unique challenges you must overcome. Figuring out how to work with the community, keep your employer profitable and minimize the negative impacts on the environment requires forest professionals to think strategically and creatively. I know there is great work going on everyday and I'd love to hear about it. Please let me know how you strive to balance the environmental, social and economic values of the forest by e-mailing me at president@abcfp.ca. 🍁



Cumulative Impacts and the Incredible Shrinking Forest Landbase

We all have a story. A mine is approved in the same area where the province had been trying to save the habitat of a dwindling number of caribou. Transmission lines cut through swaths of forests and make it impossible to reach merchantable timber. Oil and gas pipelines knock down juvenile timber plantations. Two sets of resource roads approved mere metres from each other.

While there is always a long list of forest issues on the association's radar — cumulative impacts on the forested landbase and the permanent reduction of the forested landbase are making their way to the top of the list again and will no doubt feature in our discussions with the new provincial government.

As an organization made up of professionals rich with knowledge of the forested landbase and ecosystem management, perhaps there is no better time to partner with the government on these issues. How can we ensure that the province's most important renewable resource and contribution to reduction of carbon prospers in the future?

In 2008, the association drafted a land-based management statement. We recognized — as did others — the decision making that was taking place in different government silos and the lack of good planning by the government was creating much of the cumulative impacts problem. We spoke to whoever would listen to us in the government.

Our most impactful meeting was with Doug Konkin, RPF, the then Deputy of Environment and head of the Resource Management Co-ordination Process (RMCP). It was a tricky meeting but we succeeded in getting agreement on our main premise — that the government needed to show some leadership in cumulative impacts on the landbase.

We left the meeting hopeful that our message had been heard and that the government was moving towards a more co-ordinated approach to dealing with conflicting resource needs on the landbase.

Fast forward to 2013. We now have FLNRO — a big step forward in bringing the silos together; however, there are still problems on the land, but now they are bigger challenges. Take, for example, the proposed LNG pipelines which are estimated to be 48" wide each and would travel over 700 km from Fort Nelson or Dawson Creek to Kitimat or Prince Rupert. Imagine, three massive pipelines with the required right of ways all within close proximity and all carrying the same product. Now layer on the tens of thousands of kilometres of 2.7 metre-wide cut lines for the seismic programs, the thousands of 1-acre well pads, the thousands of kilometres of feeder pipelines, roads, compressor stations and gas plants. Then consider issues associated with the use of millions of cubic metres of water for fracking and the impact

on wildlife, the forests and surrounding areas in Fort Nelson and Dawson Creek.

All of this will be the result of opening up new markets and LNG opportunities for shale gas in the northeast. And authority to regulate this industry falls not within what many consider the "land management ministry" but with the Oil and Gas Commission (or perhaps the new Natural Gas Development ministry).

In addition, BC Hydro's Northern Transmission Line and the proposed Site C dam projects require timber and forest land to be permanently removed from the forested landbase and will permanently change the surrounding ecosystems.

Now consider the large number of mines being proposed, introduction of more wind farms and additional independent power projects. Once again the forested landbase gets permanently reduced and the cumulative impacts on the landbase increase.

This is not a discussion to stop the development of other sectors but an expressed concern to ensure that development proceeds using a principled approach to stewardship. What is needed is a comprehensive discussion about the need for smart planning on the entire landscape. And this kind of planning is what forest professionals do every day.

It's time for us to restart the conversation about cumulative impacts. Results to date of current processes for planning are of concern. A new rigorous and comprehensive process will give us all confidence that the right balance is being struck.

It's time for a more holistic view of our forested landbase and all that we can achieve on it. As the stewards of our resources, the government needs to optimize the use of its land, water and resources for the economic, social and environmental benefit of the people of BC. 🍁

Fire and Fuels Management Guidelines Now Available

The *ABCFP Interim Guidelines for Professional Practice in Fire and Fuels Management* is now available for member use and can be found on the ABCFP website (Regulating the Profession, Practice Guidelines). Considering that the frequency and severity of wildfires have been increasing, and there is an increasing likelihood of damages and related costs due to ever-expanding interface areas, these guidelines are intended to assist members who work in the area of fire and fuels management. The guidelines were developed in response to issues identified by forest professionals and by the Forest Practices Board, and include:

- Clarification regarding the use of common fire and fuels management terms and their definitions;
- A review of the respective roles and responsibilities for forest professionals and their clients or employers, and approving authorities;
- A discussion on professional liabilities in relation to work in the area of fire and fuels management;
- A review of due diligence considerations and practices;
- Identification of aspects of fire and fuels management that include the practice of professional forestry;
- Clarification on expected and required skill sets;
- Considerations when developing fire and fuels related plans and prescriptions; and
- Considerations for other land uses and values, and other types of plans and prescriptions.

These guidelines are interim — intended to provide member guidance during the 2013 fire season and to stimulate member discussion and suggestions for improvement. The ABCFP will continue to accept member comments and suggestions for the rest of this year, with the intent of refining this guidance document for 2014. To contribute your comments and suggestions for ABCFP consideration, please e-mail Jackie Hipwell, resource associate, at jhipwell@abcfp.ca.

New Guidelines Available - Supervision of the Practice of Professional Forestry

ABCFP members and users of professional services have come to the ABCFP with questions regarding the word 'supervision' in the professional context. As a result, the supervision guideline has been established to assist in the interpretation of the concept of 'supervision' as it is used in the *Foresters Act* and in the ABCFP Bylaws. The guideline builds on an earlier version of guidance by providing characteristics of supervision in the practice of professional forestry and practical examples of how supervision is applied. You can find the guidelines on our website (Regulating the Profession, Practice Guidelines).

Discount for ABCFP Members Taking Aboriginal Consultation Workshops

Indigenous Corporate Training is offering its popular workshop, Aboriginal Consultation and Engagement, in cooperation with the ABCFP in two locations this fall. ABCFP members will get a \$50 discount by using the code "ABCFPmember" when they register online. Visit www.ictinc.ca/events for more information on the Kamloops workshop on September 25th or the Nanaimo workshop on October 10th.

New Discussion Paper Available: Describing Professional Trust and Respectful Regard

Since 1997 the profession and major stakeholders have embarked on improving the benefits associated with an increased reliance on professional judgment. Professional reliance in natural resource management is effective because of the knowledge and skill available from forest professionals, their commitment to a standard and the accountability mechanisms within the profession.

The professional reliance initiative in forest resources has made significant progress in recent years; specifically, members have demonstrated that they understand and apply professional reliance. However, members continue to tell us that an area of concern is 'trust.' Therefore, the ABCFP is looking further into the subject of professional trust and respectful regard and has produced a discussion paper for members that is available on the website (Publications and Forms, Stewardship and Practice Reports).

The purpose of the paper is to generate more specific and informative discussions among professional members regarding professional trust and respectful regard. You can post your discussion comments online or e-mail your comments to Mike Larock, RPF, director of forest stewardship and professional development, at mlarock@abcfp.ca

Selection Process for Committees Now Available

In order to provide transparency on how members are selected for ABCFP committees and task forces, we've written down our selection process.

Selection process for ABCFP committees and task forces*:

1. Staff will identify the gap(s) in committee membership.
2. A notice will be put in **The Increment** stating the name of the committee or task force and the core requirements of membership. If there are other required attributes, they will also be stated (e.g. designation, gender, location, employer type etc.).
3. Interested members will be asked to submit a resume for review.
4. Staff will review the resumes with the committee chair or committee/task force members and, if required, interviews of candidates will be held.
5. For CEO committees, staff will recommend appointments to the CEO.
6. If a selection committee is required, the committee chair will coordinate selecting the members of this committee and will include staff support. The selection committee will do the candidate ratings and select the successful candidate(s) for approval by the CEO or council.
7. For CEO committees the final appointments will be approved by the CEO prior to notification of the successful candidates.
8. For council committees such as the board of examiners, Joint Practice Board and the discipline committees, the final appointments will be approved by council prior to notification of the successful candidates.
9. All members who applied for a position on the committee will be thanked for their interest and notified of whether or not they were successful in their application.

*this process does not apply to council committees.

The Fish-Forest Connection — Some Food for Thought

THINKING ABOUT FORESTS IN THE TRADITIONAL SENSE DOES NOT USUALLY CONJURE UP images of fish. However, as a testament to the interconnectedness of forests and riparian communities, the Viewpoints articles in this issue of **BC Forest Professional** focus entirely on that water-land connection. Specifically, we look at the impact of salmon on forest vegetation and learn the far-reaching effects that marine species can have on the evolution of forest terrain. This issue also includes an analysis of the Cohen Report as it relates to the forestry sector. The lengthy report, released in three volumes, aims to uncover reasons for the decline in Fraser River sockeye salmon runs and investigates whether logging was a contributing factor. Other articles shed insights on the marine log handling industry and how shifting government regulations have changed (and will continue to change) practices adapted by industry. Rounding out these articles is a piece that looks at the cost/benefit of conservation from the often dueling perspectives of forest development and marine protection.

Interest articles take us to the forests of Mexico, where we follow a Selkirk College forestry class on their eye-opening journey to study the heavily forested lands in the Sierra Norte mountains. Another inspiring article features a profile of the Regional District of Mount Waddington, which was bestowed the honour of Forest Capital of BC in 2010. The positive experiences are still being felt in the North Island district and will hopefully inspire others in the province to submit a bid to become this year's Forest Capital.

This issue also offers members a lot by way of practical news. We share the results of the ABCFP's Membership Renewal Survey and also discuss the findings of a Discipline Committee investigation involving a member's professional conduct. We hope something in this range of articles sparks thought and discussion and invite you to share any feedback — positive or negative — that they may provoke. 🐟

The Principles of Forest Stewardship¹ and Considerations for Fish

Managing forest ecosystems implies that forest professionals acknowledge and understand the range of values present on a given site. Fish values, including habitat quantity and quality, is one of the most prominent elements that we recognize in our practice when a treatment or prescription may have direct or indirect impact on a stream or river.

For example, when forest professionals are conducting a road layout and design for a proposed road that is adjacent to a fish stream, combined with a bridge crossing, they will weigh several of the Forest Stewardship Principles. **Information and Understanding** applies to the collection or use of relevant site data, fisheries inventory information and stream channel assessments. There may be the need for a professional biologist and/or engineer to assess and prescribe components of the project.

Further to this, forest professionals will evaluate **Temporal and Spatial Strategies**, as the road and crossing location will have implications on future access and may impact whether other landscape objectives can be met. It may be discovered that other resource industries will be using this road in the near future, which could highlight the need for different design criteria such as a wider running surface or a permanent crossing structure rather than a temporary one. These accommodations may have greater impact on fish habitat, which would need to be addressed in the overall assessment of the project design and the objectives for the watershed.

It is the weighing and balancing of these and other factors that determine how well we uphold the Principles of Forest Stewardship and the durability of our management decisions.

¹ The main document can be seen at http://abcfp.ca/publications_forms/publications/committee_reports.asp



Salmon Forests

MILLIONS OF PACIFIC SALMON RETURN FROM THE OCEAN TO SPAWN IN thousands of streams throughout British Columbia. Sockeye salmon migrate astonishing distances through the mighty Fraser basin to the northern Interior to spawn in tributaries of the Stuart-Takla lakes over 1,000 kilometres from the ocean — watersheds that are dominated by hybrid white spruce, subalpine fir and lodgepole pine. In the Great Bear Rainforest of the central and north coast, all six species of salmon (chinook, chum, coho, pink, sock-eye and steelhead) are supported by hundreds of small watersheds containing old-growth forests of western redcedar, western hemlock, amabilis fir and Sitka spruce that are managed under ecosystem-based management.

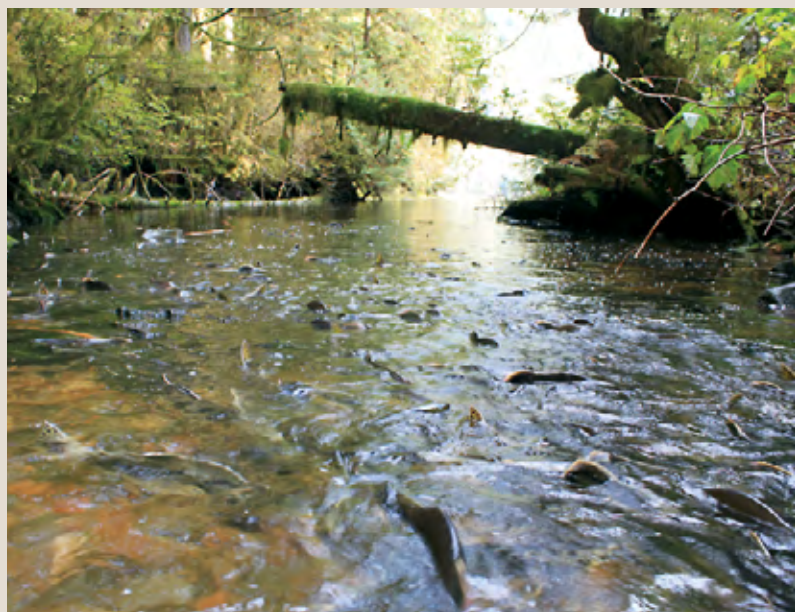
BC salmon are a cultural and ecological icon of our province. Not only are they crucial to the cultures and economies of many communities, they also support important species for biodiversity — grizzly bears, bald eagles, and orca whales to name a few. I have spent much of my scientific career studying how salmon and their marine-derived nutrients affect biodiversity in the Great Bear Rainforest.

Forest Practice and Policy Implications

One of my key research goals as a graduate student at the University of Victoria and as a postdoctoral researcher at Simon Fraser University was to document how salmon nutrients affect riparian plant communities. We found out that bears, wolves and other species drag lots of half-eaten salmon into the forest; that stream water flow links dissolved nutrients from salmon to soils and the root networks of trees; and that salmon nutrients can be detected in the tissues of riparian plants over 100 metres from the spawning channels. But what evidence is there that salmon affect plant growth or diversity?

Some of my recent analyses from more than 50 streams in the Great Bear Rainforest have shown that salmon increase riparian plant productivity. At streams that support a high density of spawning salmon we observed plant communities that are dominated by nutrient-loving species (such as salmonberry and stink currant), higher nutrient quality (nitrogen content of leaves) and faster tree growth. Surprisingly, nutrient subsidies from salmon also caused a decrease in plant diversity because a few species can out-compete the others for salmon nutrients. The result is often dense thickets of salmonberry and stink current laden with berries that are consumed by many mammals and birds, or large and fast-growing Sitka spruce trees that play important functional roles for salmon as fallen large woody debris in streams. Salmon thus change the structure and functioning of riparian communities.

Another surprising finding of our work was how the type of watershed can affect how much salmon nutrients change riparian plant communities. For example, a key factor is the stream gradient and the slope of the riparian zone, which mediates how salmon nutrients are retained within



Top to bottom:

Pink salmon spawning in small stream on the central coast of BC.

Devil's club and a productive riparian forest subsidized by salmon.



All Photos: Morgan Hocking, PhD



Clockwise from top left: Wolf predation on chum salmon beside a small stream. Wolves eat just the salmon head and leave the remains to fertilize the forest.

Large Sitka spruce in the riparian zone of a small stream on the BC central coast.

Large woody debris modifies stream structure and helps retain salmon carcasses.

Salmonberry plants growing on the bank of a small salmon stream on the central coast of BC.



Subtidal Rock Reefs Act as Compensation

It is a common strategy on the BC Coast for log handling operations to have subtidal rock reefs constructed in order to compensate for habitat losses associated with their operation. The location of the reef is proposed by professional biologists who assess subtidal areas in proximity to the operation, selecting a site with low productivity. Typically these reefs are constructed from large, angular rip rap material that offer attachment surfaces for algae and invertebrates, as well as cover to marine species like rockfishes and perches. If well placed, these reefs are more productive than surrounding marine areas. These structures have been a successful compensation strategy to date.

Clockwise from top left:

Dive crew setting up for a log handling facility reactivation survey.

*Giant pink star, *Pisaster brevispinus*, observed in the subtidal area during a post-operation log handling facility underwater assessment. (next page)*

Survey transect being set for the completion of a post-operational assessment of the marine habitat fronting the site.

Biologist, Doug McCorquodale, examining the foreshore and intertidal areas of a proposed new log dump facility.



All Photos: Doug McCorquodale / RPBio



Coastal Log Watering — Recent Gains and an Uncertain Future

ON THE COAST OF BC, LOG DUMPS HAVE BEEN USED FOR DECADES TO transfer fibre from terrestrial areas to the marine environment. This transfer remains an essential component of transporting wood to markets, since the terrain of coastal areas is not always conducive to road transport.

For much of this century, log watering was conducted without focus on the marine environment. Logistical considerations, such as ease of access, proximity to timber supply and road access were the factors that determined the final location of log watering facilities. As a result, many of the early facilities situated around the coast are located in environmentally sensitive areas, or areas that would not be deemed suitable by today's standards.

In 1986, the Policy for the Management of Fish Habitat was created by Fisheries and Oceans Canada (DFO). This policy had a profound impact on the design, location, development and operation of BC coastal log watering facilities. Forest professionals were directed to involve biologists in the development and planning of log dumps and effort shifted to limit marine habitat loss and/or damage. The 'no net loss' principle of development ensured that habitat impacts due to construction and operation were minimized. If habitat damage was anticipated during the development phase, compensatory habitat was created to achieve "no net loss" of fish habitat. The vehicle that was employed to spell out the details associated with a particular development was known as a Fisheries Act Authorization.

The marine log handling industry adapted to incorporate the new policy into its planning and operations. More care and attention went into citing log dumps and underwater monitoring programs directed how much habitat compensation was ultimately required to offset any losses. Compensation could take many forms, but was typically in the form of subtidal rock reefs. The reefs addressed another principle within the new policy, which was to replace "like-for-like" habitats. There were additional costs, but operations were not noticeably constrained; the

new policy appeared to be working and operations were not unreasonably taxed.

Time passed and government started to shift the goalposts, despite no additional changes in federal policy or legislation. Over time, when developments that did not fit cleanly into the policy (such as reactivated log dumps) were proposed, individual DFO assessors responded to those proposals in a piecemeal and uncoordinated fashion. The result was an inconsistent array of requirements throughout the coast, increased cost, and — most significantly — excessive delays in order to get proposed developments authorized. In many cases, approval from DFO became the limiting factor in conducting a coastal forestry operation.

In an effort to solve the problem, the Coastal Forest Products Association and BC Timber Sales worked with the DFO to create a working group. The objective was to get back to the place where logging could occur under reasonable costs and timelines, while at the same time, meeting all federal habitat policy and legislation requirements. By working cooperatively through the problem, several tools were developed to allow for companies to rapidly move forward with low risk activities; at the same time, professionals were given the responsibility to ensure that net loss of productive marine habitat did not occur. By putting more focus on operations and decommissioning log watering facilities (the back end), time delays were reduced in getting approvals to move forward (the front end). Federal auditing of a subsample of developments provided the necessary regulatory oversight. Over the three years these tools have been in practice, they have been considered a vast improvement over previous practices. Compared to other industries, the forest industry was ahead of the curve with respect to DFO interaction and streamlining.

At the time of writing this article, new habitat provisions of the

The Right Effort in the Right Place!

HOW BEST TO MANAGE AND CONSERVE FISH AND FISH HABITAT IS AN important question in forest and land management in BC. A key danger is implementing conservation measures that have significant impacts on forest development, while not having appreciable benefit to fisheries values. Prioritizing management strategies based on current or anticipated risks can be used to maximize benefits to fisheries values while minimizing impacts on forest development. To do this, forest and land managers must understand: 1) fish and fish habitat values; 2) current and proposed development on the landbase; 3) potential effects of planned development on watershed condition; and 4) the efficacy of the proposed management. Through developing this understanding, key issues can be identified and management strategies can be focused to ensure meaningful benefits to fish and fish habitat.

With a fish-focused risk-based approach, management effort is prioritized where risks to fish values are highest. Risk can be defined as the combination of hazard and consequence, generally defined as the likelihood of an event to have direct or indirect effect on fish habitat (hazard) and the value/extent of the fish habitat that would be impacted (consequence).

An example of this approach in action involves the Horsefly River watershed located in the Cariboo region of the BC interior.

The identification of elements at risk (in this case fish) and the potential harm that could occur as a result of an event is considered the 'consequence.' The consequence assessment involves identification of fish species and habitat type and their vulnerability during various life stages. Fish values in the Horsefly River are recognized by fisheries managers as some of the highest in the province, with key spawning areas for chinook and sockeye and both spawning and rearing habitat for coho and late maturing rainbow trout. High-value habitat in the Horsefly River is vulnerable to increases in spring flows, stream sedimentation, mid-to-late summer water temperature and reductions in both low flows and riparian function.



The location of high value habitat dictates the scale that risk analysis and management for fish is applied. If forest harvesting is planned in the upper reaches of a watershed, where high value bull trout habitat may occur, the system would be assessed and managed at the basin or sub-basin level. If high value habitat occurs throughout the watershed, including the mainstem channel such as in the Horsefly River, analysis would be applied at the watershed level with management to address expected site level and/or cumulative effects.

It is crucial to note that understanding the location and value of fish habitat helps focus attention on areas and at scales that are relevant; consequence should drive the process.

Hazards that impact fish and fish habitat can include increases in spring peak flows, reductions in low flows, increases in stream sedimentation and reductions in riparian function. The hazard assessment considers both inherent watershed conditions and land-use effects on watershed condition. If indicators are used they should reflect the current land-use situation (road density, equivalent clear-cut area), as well as inherent conditions that influence hazards (extent of forest cover,

annual snow accumulation and melt patterns, drainage density and ruggedness and presence and location of lakes or wetlands that can buffer downstream areas). The hazard assessment should also anticipate future change in watershed condition (i.e. how might ongoing land use pressures, climate change or forest health factors influence forest cover, sedimentation and riparian function).

In the Horsefly River, the current hazard situation is high with respect to reductions in riparian function and resulting stream sedimentation, largely the result of activities on private land. Past forest

development, including recent salvage of mountain pine beetle affected stands, has contributed to the stream sedimentation hazard and exacerbated peak flows in several basins. Widespread forest health issues remain in the Horsefly with further increases in streamflow, water temperature, sedimentation and riparian function hazards expected.



Photos by Randy Spykma

The combination of hazard and consequence assessment provides an estimation of risk for fish that can then be used to guide management response.

Risk = Hazard x Consequence

	Low hazard rating	Moderate hazard rating	High hazard rating
Low consequence rating	Very low	Low	Moderate
Moderate consequence rating	Low	Moderate	High
High consequence rating	Moderate	High	Very high

In the Horsefly River, high hazards combined with high values result in a very high risk situation for fish.

Another effective management tool is the application of a watershed risk assessment process across a large area. In this case, a relative risk ranking can be used that compares the level of risk within a given watershed to other watersheds, basins or sub-basins in the Timber Supply Area (TSA) or region. The relative risk ranking of a given drainage can then be used to support the prioritization of management strategies and/or investments to conserve the values at risk.

With an understanding of current and potential future risk to fish that may result from planned land use activity it's time for the land

manager to consider natural versus land use-related contribution to hazard, incremental effect of planned or proposed activities and the economics of any special management or development deferral to mitigate negative effects on fish. Just because the risk to fish and fish habitat in a given watershed may be high, does not mean that impacts will be realized. This reality leads to judgment calls. These judgment calls include both professional and administrative aspects. Professional judgment may be required in both hydrology (i.e. likelihood of events happening and what the event would generate) as well as biology (i.e. impact of an event on fish/fish habitat). Administrative or management judgment may include the decision to accept certain levels of risk when making decisions about planned development.

Given the high risks within the Horsefly River watershed, we have and will continue to see judgments being made at a number of levels: by the provincial government (supporting land use plans, objectives set by government, potential Fisheries Sensitive Watershed designation, etc.) as well as by forest licensees (development or permit-specific risk-based decisions). Each level of decision making should involve the assessment



The Decline of Sockeye: Is Logging to Blame?

TO GET A PROPER PERCEPTION OF WHERE FOREST PRACTICES ARE NOW IN relation to fisheries management we need to understand where we came from. The topic of forestry and fish is timely in light of the recent release of the Cohen Report, which is a detailed investigation into the decline of the Fraser River sockeye salmon runs. In this report, logging was listed as one of the factors that potentially contributed to the decline.

Forestry and Fish: The Tumultuous Past

Forestry has been a target and scapegoat for a number of environmental issues, largely due to some rather damning practices of the past — like the crossing of the lower alluvial floodplain of the Kauwinch River in 1970 during spawning season. The block was harvested without building a bridge, and as the photo on the next page demonstrates, debris build-up on the landing was disposed of by pushing it into the river. The Department of Fisheries and Oceans (DFO) was aware of this block (and many others like it), but at the time it was thought that hatcheries could replace whatever losses ensued. Values and practices have since changed dramatically.

The types of industrial practices seen in the Kauwinch watershed precipitated the 1987 Brundtland Report on the state of the earth and formed the foundation of the first Earth Summit in Rio de Janeiro in 1992. In BC this eventually inspired the introduction of the *Forest Practices Code* (FPC) in 1995 (roughly the same time as the Clayoquot Sound Scientific Plan Recommendations (CSSP)) and a government commitment to create a series of parks representative of at least 10% of each BEC zone¹. The FPC, CSSP and later, the 2008 Land Use Orders (covering the area known as the Great Bear Rainforest) all had a strong focus on managing the values of streams, their riparian areas and by default, fish. In other words, in a relatively short time, we've come a long way.

Critical components that have helped raise fish habitat management standards for industry were certification and the introduction of the professional reliance model through the *Forest and Range Practices Act* (FRPA). Certification raises the bar from what is strictly legal, and I consider professional reliance to be a key component of ecosystem based management. The forest management standards we face in many areas of the coast involve a much higher component of fish, wildlife and ecosystem management. This has resulted in a much closer relationship between members of the ABCFP and members of the College of Applied Biology (CAB) and this cross-pollination has created a greater awareness of each other's challenges. This includes improved knowledge about different riparian strategies, sediment issues, and the like.

Fish habitat is also managed in the marine environment. In 1987 DFO introduced a no net loss of fisheries habitat policy. However, due to poor understanding of requirements and inconsistent application,

the policy was rarely administered as intended (Cohen 2012). In 2002, a BC Coast Forest Products Association (CFPA) committee was formed (consisting of RPF and RPBio members) to work collaboratively with DFO to develop a clear understanding of the policy. From this joint venture the first guidance document for marine log handling was produced for the purpose of consistently meeting the policy (<http://www-heb.pac.dfo-mpo.gc.ca/publications/pdf/274124.pdf>). In 2009, DFO and the CFPA collaborated again to develop best management practices (BMPs) for log-handling activities for helicopter logging, reactivation of old log dumps and information requirements for new log dumps (Cohen 2012). These BMPs also included standards for dive (SCUBA and Remotely Operated Vehicles) assessments and a number of other requirements (<http://www.pac.dfo-mpo.gc.ca/habitat/guide-eng.htm>). These documents (later called approved work practices or AWP) were achieved by recognizing each other's mandates and in the end, we all felt comfortable with the outcomes and were validated by the positive results of the first Forest Practices Board (FPB) audit in the Central Coast of Ecosystem Based Management practices (<http://www.fpb.gov.bc.ca/WorkArea/DownloadAsset.aspx?id=2147484088>).

The Cohen Report: Fair and Accurate?

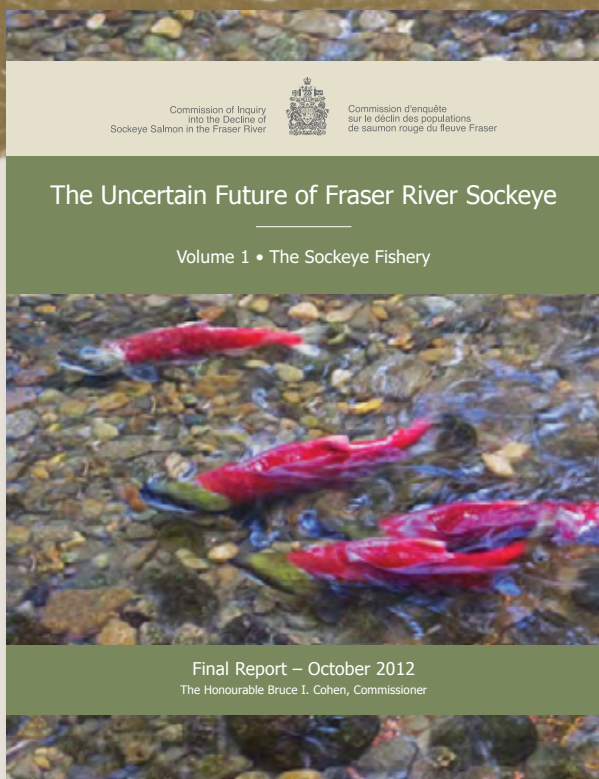
As mentioned, the Cohen Report investigated logging as one of the possible contributing factors in the decline of the sockeye. Overall the report appeared to be well investigated, and considering the wide range of topics covered, mostly accurate. Dr. Tschaplinski provided some good information (Volume 2, p. 27) and confirmed that “forestry practices have improved greatly.” In Volume 3 (p.48) Mr. Cohen agreed with Dr. Tschaplinski and concluded that forestry practices were unlikely to have caused the decreased productivity of the Fraser River sockeye. This didn't surprise me given the Carnation Creek work by Dr. Tschaplinski where he found that despite some rather poor and extensive logging practices (by today's standards) in a relatively sensitive watershed, the logging only contributed to 26% of the decline in chum salmon and <10% of coho salmon (Tschaplinski 2004).

While many aspects of the Cohen Report were articulated accurately I disagreed with some of Mr. Cohen's assumptions, for instance, his impression that “FRPA has significantly reduced the requirements on industry” (Volume 1, p.285). While our red tape has been reduced, the professional reliance model requires increased diligence and time by our staff. Probably what concerned me the most is some of the non-scientific testimony and evidence that was used in the report. There seems to be a wide acceptance of information that lacks basic scientific design and rigour such as before-after-control-impact methodology. One highly speculative submission was the FPB special investigation (2007) discussed in Volume 2, page 27 that Mr. Cohen seemed to



Photo courtesy of DFO

Left: Cover of the Cohen Report, October 2012. **Above:** Lateral view of a temporary bridge across the mainstream Kauwinch River that remained in place during the 1970 fall spawning season. The temporary road crossing washed out when pink and chinook salmon were spawning in the river. (DFO 1970)



interpret as actually happening when, in fact, it was a modelling exercise. In other testimony, it was calculated that the level of harvest in the Fraser basin within the last 15 years was less than 10% of the area (Volume 1, p.289); likely not significantly greater than baseline harvest levels. Forest and Range Evaluation Program (FREP) reports are referenced in several locations, and while FREP stream results can be good indicators, its Achilles heel is that it is measured against a single baseline reference (for all BC streams) as a control with no measurements prior to logging; despite this, many conclusions are developed.

There was a lot of concern over the use of pesticides by the forest industry where there was testimony “that the use of pesticides by the

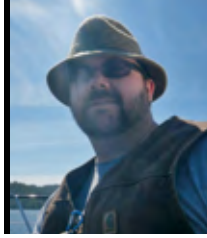
forest sector might be one of the greatest concerns for Fraser River sockeye salmon productivity” (Volume 3, p.51). This resulted in recommendation 54 (Volume 3, p.52), which ironically includes practices that the forest industry is already required to implement.

Based largely on the FREP reports, Mr. Cohen concluded that there should be better riparian management of small streams, hence recommendation 48 (Volume 3, p. 49). Part of this is due to the concern over the loss of allochthonous input (leaf litter and insects) into the streams, however there is ample evidence that the increased sunlight and resulting algae production can compensate for that loss of input provided sediment levels remain low, and that there is relatively quick recovery ([http://clayoquot.org/sites/default/files/content-images/CWFS_Small_Stream_Study_2010_11_Completion_Report1_1324077195\(1\).pdf](http://clayoquot.org/sites/default/files/content-images/CWFS_Small_Stream_Study_2010_11_Completion_Report1_1324077195(1).pdf)). There is some mention of a mandatory 10 metre reserve that DFO is trying to get incorporated into a new Riparian Management Area Guidebook (Volume 1, p.287). Based on the referenced FREP report #27 (p.59) there are some realistic guidelines that forest companies should consider within the 10 metre RMA (<http://www.for.gov.bc.ca/hfp/frep/publications/reports.htm>).

In short, the Cohen Report and many other sources seem to support the notion that the forestry industry has responded relatively well to management of fish habitat in a short period of time. Does this mean we will stop trying to improve? The short answer is no. As more information comes to light we will assess the information and respond accordingly — a living example of adaptive management. 🐟

Warren Warttig, RPBio, is a senior planning biologist at International Forest Products Ltd. and is based in Campbell River.

Please see **WARTTIG REFERENCES** Page 26



Forests at the Root of North Island Communities

IN 2010, THE REGIONAL DISTRICT OF MOUNT WADDINGTON (RDMW) HAD the titular honour of being selected as the ABCFP's Forest Capital. This was in no small part thanks to the collaborative vision of its late Chair, Al Huddleston, who in 2009 encouraged staff and regional partners to collaborate to submit a bid that would make the "North Island" the first regional district to ever hold that distinction.

We're Lumberjacks (and RPFs) and We're Okay

To many of the local area's colourful denizens, forestry is the North Island and to only celebrate that fact in one municipality would fall short of representing a proudly diverse region of 11,500 people. From Woss to Port McNeill to Sointula to Port Alice to Port Hardy and beyond, 2010 was a truly regional celebration of forests being at the root of our communities in a whole manner of different ways. 2010 was also a singular example of selfless community volunteerism from the collective forest professionals and businesses of the North Island, making multiple events successful, fresh and exciting all year.

Exporting Raw Enthusiasm

Through some light January drizzle, then BC Forest Minister Pat Bell helped the region launch its calendar of events with local children, the ever-present Smokey Bear and an exciting announcement pertaining to the creation of the North Island Community Forest at Seven Hills Golf & Country Club.

There were some great stand-out events and activities in 2010, including:

- **Forest Capital Logger Sports:** For the first time in many years, a sanctioned logger sports event took place in Port McNeill and aired on TSN. In 2010 and every year since, the North Island's finest choppers and hot saws have been on display in the wonderful grounds created for the first event that year.
- **A local lecture series:** A range of topics were covered by presenters over the year. In one case, an international presenter, Peter Lang, spoke in Woss, one of the few communities on the coast in recent years to have a wildfire interface plan that executed a fuel management strategy with Job Opportunities Program dollars.
- **Weekly forest articles in the North Island Gazette:** Every week, a forest professional had an article on a forest topic published in the local newspaper. This was very well-received by the general community.
- **Forestry field tours:** Partnering with School District 85 was essential, making the whole year (and not just National Forest



**FOREST CAPITAL
OF BC DESIGNATION
WINNER 2010**

*Every year, the ABCFP selects a community to be the Forest Capital of BC. This prestigious designation allows a community to celebrate with its citizens the important contributions forests have made. Every community in BC is eligible to be nominated and to give you a sense of what to expect, we asked the **Regional District of Mount Waddington** to share its remarkable experience.*

Week) about our region's resources and recreation.

- **Replanting:** Every student received a seedling of his/her own to plant in 2010, teaching them the importance of restoring the forest that provides jobs to working families.

In a rural-remote region like Mount Waddington, the key was not to simply create lots of new events for each month, but also to build off existing annual events in the communities as much as possible with forestry-themed content. Our information booth could be found at fairs, sporting events, festivals and parades all over the North Island, engaging visitors and residents alike across the year, including National Aboriginal Day.

Just the Right Prescription

Thanks to the Forest Capital year's lexicon of events, the ABCFP proudly put the 'for' back into our region's forestry. In many ways, a collaborative regional effort allowed more events and project leads to share the load of delivering the calendar of activities. It also made the involvement of small unincorporated communities like Woss and Holberg possible, emphasizing the importance of a strong local workforce, including management capacity, for sourcing volunteers. It is a title well worth pursuing by any municipality or regional district, particularly for those wishing to reconnect with and celebrate this most British Columbian way of life. 🍷

To find out more on how your community can be the next Forest Capital, go to abcfp.ca and search, "Forest Capital"

Neil Smith has been the manager of economic development and parks for the Regional District of Mount Waddington since 2007. Along with Andrew Ashford, RPF, the local forest district manager, he was co-chair of the 2010 Forest Capital Committee in 2010. In his native Scotland, Neil studied politics and english literature at the University of Glasgow and rural and regional resources planning at the University of Aberdeen. Since 1999, Neil has lived in Canada, with time spent living and working in Newfoundland, northeast British Columbia and, currently northern Vancouver Island.



Local children on a fascinating interpretative tour of our local forests.



Jonathan Lok and Mike DesRochers enjoying a BBQ lunch, just another in a large number of events celebrating Forest Capital year.



Al Huddleston, Smokey Bear, Jonathan Lok, RFT, and Andrew Ashford, RPF, look on as Minister Bell plants a tree with local schoolchildren, formally launching the Mount Waddington region's Forest Capital year.

Forest Capital of BC 2010 LOGGER SPORTS

Broughton Blvd Waterfront, Port McNeill
August 21, 2010
Main Show 1 - 4 PM

Mens Open

- Single Buck
- Axe Throw
- Choker Race
- Springboard
- Obstacle Pole
- Underhand Chop
- Hot Saw [Unlimited]
- Grand Prairie Accuracy Cut

Ladies Open

- Axe Throw
- Stock Saw
- Single Buck

Mixed Open

- Jack & Jill

TimberWest

FURNEY DISTRIBUTING LIMITED

W.D. MOORE LOG Co. Ltd.
"Pioneers in Timber"
WINTER HARBOR
ESTABLISHED 1928

Great Forest Industries Ltd.

www.vancouverislandnorth.ca/forest-capital-2010

One of the most enduring legacies: the re-establishment of sanctioned logger sports events in Port McNeill.



Discussing community forest management in the Sierra Norte.

Everything Under the Sun: Selkirk College Forestry

MANY STUDENTS UNDERTAKE SELKIRK COLLEGE'S FOREST TECHNOLOGY program after spending a few formative years going to university, working or travelling the globe, so an increased desire to broaden their international perspectives on environmental challenges develops.

In early December 2012, this natural curiosity translated into concrete action when students and staff decided to focus efforts on researching, coordinating and fundraising in hopes of creating a unique international experience. Generous donations of logs from several local businesses meant that the students were able to convert those logs to firewood and sell enough to cover most of the trip expenses. The Ike Barber International Scholarship fund was a major source of funding as were donations from several other local individuals and businesses. The students worked tirelessly throughout the winter and on March 15, 11 students and two instructors from Selkirk College's School of Environment and Geomatics Forestry Program set out for an 11-day visit to several very special communities in the Sierra Norte mountains in the state of Oaxaca, Mexico.

Daniel Klooster, a professor at Redlands University in California and an expert on social and community forestry in the developing world, helped us establish contacts with regional community forests. He recommended three diverse communities for us to visit but suggested that we focus much of our trip on one community forest in the small town

of Capulalpam de Mendez. Capulalpam, known as "El Pueblo Magico," or "the magical town," and described as "utopia" by Professor Klooster, lies in the Sierra Norte mountains at an elevation of about 2,500 metres. Like most of the region, the area around Capulalpam is dominated by

ecologically-rich pine and pine-oak forests featuring moist and dry montane tropical ecosystems. The community is primarily inhabited by indigenous Zapotec peoples. Capulalpam has a long history of outside exploitation of its local resources but late in the 20th century, that exploitation began to meet with increasingly stiff and ultimately successful resistance. Eventually, this led to community control of the surrounding forest resources. Now, the federal government allows Capulalpam to manage its

community forest area relatively unimpeded and virtually all of the area timber that is cut is milled and used locally.

A complex traditional system centering on the concept of volunteerism is used to govern the community's social and administrative structure. Integral to community function, this system extends to all areas of community life, including management of Capulalpam's community forest. For example, when a special task needs to be performed, like fighting a forest fire or slashing in a new location for a forest road, members of the community simply band together and complete that task. Their individual reward is little more than the



Older but relatively effective two-drum yarders.



Small openings that rely mostly on natural regeneration as the primary means of stand re-establishment. Slash is piled and used as a natural erosion control fence.

Students Study Community Forestry in Mexico's Sierra Norte

opportunity to share a cold drink together in the town square after a hard day's work. According to the townspeople themselves and based on our own observations, their collective reward is far greater.

The extent to which the people of Capulalpam have resisted outside influences and managed to retain their Zapotec traditions is especially remarkable in light of the fact that they invite rather than shun interaction with the outside world. For example, they are currently in the process of establishing a burgeoning ecotourism business. Outside learning is also encouraged, with community members who show special skills and interests in a particular field being sent away to places like Oaxaca City and Mexico City for formal training. However, the citizens of Capulalpam carefully guard their traditions, culture and heritage, allowing only direct descendants of community members to be provided parcels of land or employment opportunities within their community. The community points to this strong link to their heritage as a key to their solidarity and success.

Timber harvesting in the Sierra Norte is accomplished using one of two methods. Uphill logging is completed using crude and rather old but relatively effective two-drum yarders, while downhill logging is accomplished by rolling the logs manually to the lower road. The heavy reliance on manual labour was somewhat shocking

at first to our industrially-trained Canadian eyes. However, when examined from the perspective of their own socioeconomic system, the combination of their emphasis on community employment and availability of relatively cheap labour reveals it to be a logical and cost-effective operational technique.



Selkirk College Forestry Class in Capulalpam de Mendez. Capulalpam is known as "El Pueblo Magico," or "the magical town".

All Photos: Carol Andrews, RPF

Capulalpam's forest health management strategy demonstrates not just the heavy reliance on manual labour already noted but a general propensity for intensive fieldwork. There was a species of bark beetle that had attacked some of their pine forests in the area but which did not appear to have ravaged those forests to any significant degree. Their primary management tool to deal with this pest is an extremely simple yet remarkably successful example of the use of direct control tactics to control bark beetle

populations. They simply employ a team of four forest guards to patrol the community forest area throughout the year, monitoring for new attacks and other forest health problems. When freshly attacked trees are found, the bark is often stripped or the trees cut and burned before the beetle populations can expand.

Although Sierra Norte pine forests look similar to our own pine forests at a distance, there are notable distinctions that lead them to



Results of the Membership Renewal Survey:

It's a Good Process!

STAFF AT THE ABCFP BELIEVE IT IS IMPORTANT TO CONTINUALLY improve our processes, policies and services to members. The one process all members have to go through is the membership renewal process. It starts in early October with a notice advising you that it is time to renew and ends on January 31 when any member who has not completed the process is struck from the membership rolls. Because the membership renewal process affects every member, we wanted to get a handle on how you — our members — perceive it.

This past spring, we conducted a survey to seek member input on the membership renewal process. Nearly 1,200 members completed the survey and the results were quite positive with 81% of respondents indicating they were satisfied with the process. The following are some of the highlights from the survey.

Most members (81%) felt they had enough time to renew their memberships before incurring an administrative fee and most (86%) agreed that four months was a fair amount of time to allow members to renew their memberships before being removed from the rolls for failure to do so.

A full 97% of members felt that the information provided in the initial e-mail reminder and on the Steps to Renew page of the website are easy to understand and helpful. We were especially pleased with this result as we made some changes recently to ensure the information is readily available and understandable to members.

The survey included a place for members to make comments about the process and almost 400 took advantage of the opportunity. The comments ranged from "great process, no change needed" to serious concerns. The majority of those concerns suggested changing the timing of the process as members must pay

for their dues in December. Unfortunately, there is little the ABCFP can do about changing the fiscal year, which is December 1 to November 30, as so many of our functions are tied to these dates.

In establishing the fiscal year many years ago, the timing of certain events had to be considered. These events include the annual registration exam and the AGM, where our official financial results are reported to members. It was determined that early October was the best time for holding the exam (after summer field season and before winter conditions make it difficult to travel to the exam locations). February is the best time to hold the AGM because the bylaws require that annual reports and audited financial statements be tabled at each AGM, so working backwards, a November 30 fiscal year end was chosen because it gives staff and volunteers time to mark the exams and prepare the necessary financial information. Additionally, a change in fiscal year also requires approval from the Canada Revenue Agency.

Another common suggestion submitted via the survey was for a monthly fee payment option. Such an option has been in place since 2001 but apparently we have not done a good enough job of communicating it to our members. With the monthly fee payment option, a fixed monthly amount is withdrawn from a bank account of the member's choice. A nominal annual fee of \$12 is charged for this service to offset the costs involved and the extra work required. Members choosing this option are asked to submit the necessary paperwork by November 15 of each year. Full details can be found at our Steps To Renew webpage under Additional Resources.

We thank all members who participated in this survey. Your comments are appreciated and help us ensure we are providing the services you need. 🍷



Discipline Case Digest

Discipline Case: 2010-03

Subject Member: Ronald M. Parker, RPF

Referred to: Discipline Panel

Date of Decision: January 25, 2013

Type: Decision by a panel of the Discipline Committee

The Complaint

In 2010 the association received a complaint alleging that Mr. Ronald M. Parker, RPF, had submitted inaccurate data in three Small Scale Salvage (SSS) permit applications, specifically that he misrepresented the amount of “endangered” Douglas-fir trees by submitting higher than actual tree volumes for green-attacked trees and higher than actual total volumes. The complaint was accepted by the registrar and was referred to the standing investigation committee for review and investigation.

Due Diligence: Filing and Records

The following were accepted to be fact:

1. Ronald M. Parker, a member in good standing with the association, has been primarily engaged in assisting clients in acquiring permits under the SSS Program on public forestlands in the Prince George area.
2. In 2009, the year of the alleged incident, Mr. Parker prepared 37 applications under the SSS Program for Douglas-fir salvage. Of them, 21 were accepted by the (then) Ministry of Forests and Range, two were field checked by the Ministry and 14 were withdrawn for reconsideration. Some were resubmitted and others abandoned.
3. Of the 37 applications, three were suspended because the Ministry felt the data submitted was inaccurate; the Ministry’s estimates were based fully on field work while Mr. Parker’s estimates were from an uncontrolled and undocumented source.
4. While some variances in estimates may occur, the information submitted by Mr. Parker consistently over-estimated the volume of Douglas-fir trees in both the “dead and down volume” and “green-attacked volume” categories.
5. A greater degree of correlation was expected; the magnitude of difference suggests a degree of bias, sloppiness or error.
6. Initially Mr. Parker carried out detailed field inspections and surveys when preparing applications for SSS licenses but eventually stopped doing field inspections, instead relying on estimates provided by his client, an experienced salvage operator.
7. Mr. Parker unintentionally entered inaccurate information on two of the SSS licence applications.
8. Since the three licenses were suspended and the complaint against Mr. Parker was filed, the Ministry of Forests and Range has changed its SSS application forms, data requirements and mandatory field procedures.
9. Mr. Parker has changed his practices. He no longer relies on his clients’ estimated volumes even if the client is well experienced.
10. Mr. Parker was working as an employee during the relevant time and did not receive any financial benefit as a result of his actions and the licence applications he prepared on behalf of the client.

The Settlement

The following are the key terms of the settlement:

Member Parker:

1. Has fully disclosed his conduct in this case.
2. Admits that he contravened his professional obligations and the association Bylaws 11.4.1 and 12.5.1.
3. Admits that he has acted in a manner unbecoming of a member in relation to his work on the SSS licence applications.

4. Admits that his actions related to this matter were inconsistent with the association’s Code of Ethics and Standards of Practice.
5. Will provide a written apology for his actions to the association.
6. Will attend and complete the association’s workshop on Professional Ethics and Obligations by September 30, 2013.
7. Will attend and complete the association’s workshop on Professional Reliance by September 30, 2013.
8. Will consistently abide by the Code of Ethics and Standards of Practice while being a registered member of the association.

The association will:

1. Make a summary of this negotiated settlement available to the complainant.
2. Publish a Discipline Case Digest naming Mr. Parker.
3. Put a letter of reprimand on Mr. Parker’s file.
4. Take no further disciplinary action provided Mr. Parker made no misrepresentations and complies with the terms of the settlement.

Discussion and Considerations

The panel considered the following circumstances with respect to Mr. Parker:

1. He cooperated with the investigators of the standing investigations committee.
2. He has no previous discipline record.
3. He was willing to be party to an alternative dispute resolution process.
4. He received no monetary benefit beyond his normal wages.
5. His qualified admission that he unintentionally entered inaccurate information on two of the applications.
6. His prompt and open response to additional questions posed to him by the registrar.
7. The majority of the SSS applications prepared by Mr. Parker in the time frame of concern presumably met the standards of the application process then in force.

In considering whether the settlement meets the association’s obligations to the public and profession, the panel applied a series of tests developed by discipline committee panels, such as comparing the range of sanctions to those that might reasonably apply under the *Foresters Act*. The panels also considered whether the settlement adequately reflected the harm caused to the profession, the public and the member’s client; removed potential economic benefit to the member; provided a deterrent to Mr. Parker and other members; and had the potential to rehabilitate Mr. Parker.

Decision

The panel approved this settlement because:

- Mr. Parker admitted that his conduct contravened the association Bylaws, failed to inspire confidence in the profession, was unbecoming of a member and lacked the care and attention generally expected of members working on public forestland.
- While Mr. Parker’s actions caused harm to the standards set by the profession there was no evidence to suggest that there was irreparable harm done to the forest environment.
- The panel accepts Mr. Parker’s admission that he personally did not derive any economic benefit from his actions.
- The panel believes that the public naming of Mr. Parker plus the agreed consequences of a repeat offence provide a reasonable deterrent to him from relaxing his professional standards again.

If you’d like to read more detailed case digests for the completed cases, visit the ABCFP website at www.abcfp.ca and click on Regulating the Profession, Complaint and Discipline and then Discipline Case Digests.

Vladimir Krajina: World War II Hero and Ecology Pioneer

By Jan Drabek

Paperback: 200 pages

Publisher: Ronsdale Press; 1 edition (Oct 15 2012)

ISBN-10: 1553801474 ISBN-13: 978-1553801474

If you have practised professional forestry in BC, then you know all about our biogeoclimatic ecosystem classification. (BEC) You probably also know of Dr. Vladimir Krajina, the professor from the University of British Columbia who established the BEC approach for vegetation and land classification in BC.

I was drawn to this book by the career background of the man, Dr. Krajina, who was the legendary botanist. However, I was quickly riveted by the incredible accounts and circumstances of his life journey.

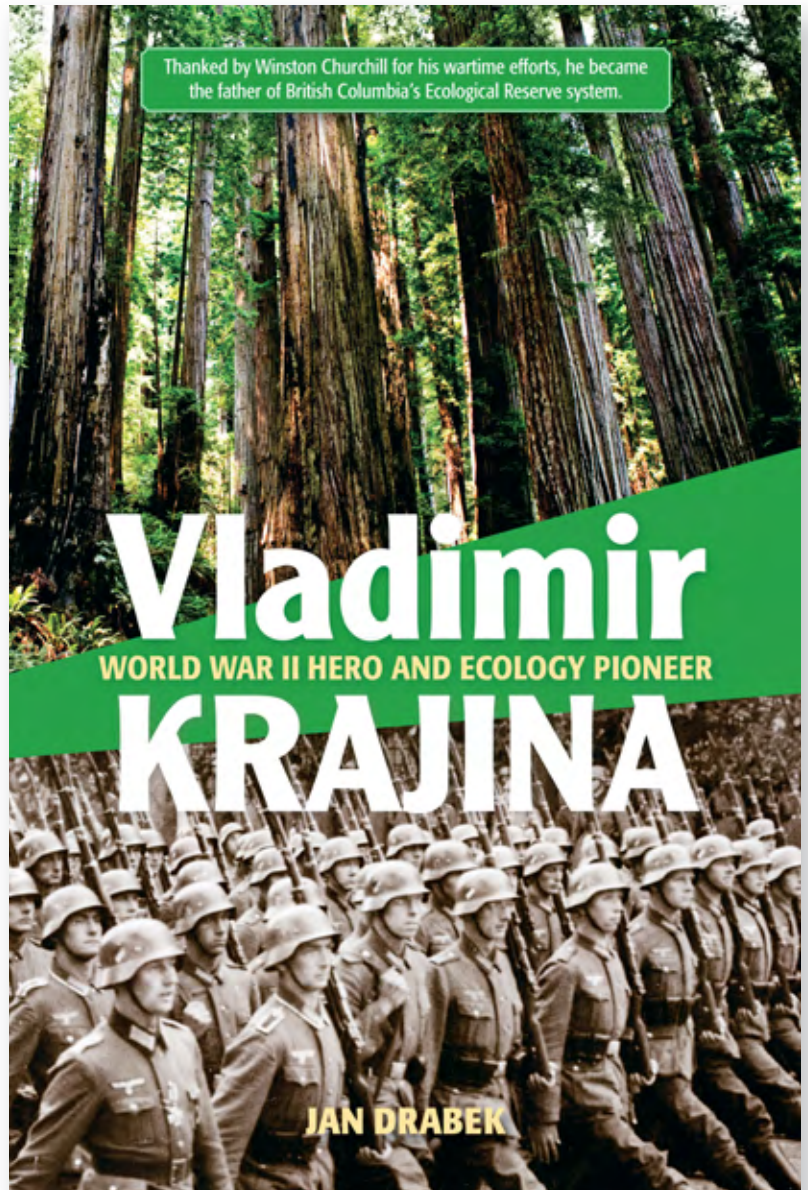
The book is written by author and Krajina family friend, Jan Drabek. After a brief description of Krajina's early years, the book launches into the start of the war resistance movement in Czechoslovakia in 1938. Drabek describes the incredible accounts of Krajina's many roles with the Czech resistance including escaped executions, interrogations and imprisonment. Having survived the war it was not long until his world was taken over by the communists. Fleeing to Frankfurt and then followed by his family, the now political refugees looked to North America for a new home. Krajina was specifically attracted to BC because of its similar latitude to that of Czechoslovakia, university opportunities and a place with plants and ecological systems that would entice a botanist.

RANKING: 5 OUT OF 5 CONES



Drabek takes time to portray the family's new life in Canada and Krajina's pursuit of plants and forest ecology. There had been little research in forest ecology in BC, which was in stark contrast to the heavily studied and developed forests of Europe. Here Krajina discovered a new need for his love of plants and systems. He was promoted to the position of professor at UBC and began to encourage the establishment of ecological reserves in BC.

It is said that he was more at home working with the foresters than with their managers. Krajina worked in BC and was also



sought after by forest companies in the Pacific Northwest. The book captures the perspectives of Krajina's former students, the same teachers and ecologists whom a generation of foresters have come to know over the last 30 years.

Drabek says, "Krajina straddled two worlds, during two different ages." And true to this description the author uses half the book to tell the story of the Czech resistor, and hero and half the book for the visionary botanist and mentor. The story chronicles a man who did what was right and necessary at the time; whether it be as leader of a wartime resistance, botanist or teacher. 🍷

Reviewed by Mike Larock, RPF.

Recent Amendments to the *Fisheries Act*

NEXT TO FEDERAL TAXATION AND TRADE LEGISLATION, THE *Fisheries Act* (the 'Act') is probably the federal legislation of most concern to the BC forest industry. And for good reason. The Act contemplates maximum penalties for a contravention of up to \$1 million, three years imprisonment, or both. A court is also able to impose an additional fine to remove any monetary benefit received due to noncompliance with the Act. If a contravention of the Act continues for more than one day, a separate offence occurs each day. And, most chillingly, if a company commits an offence under the Act, then any officer, director or agent of the company who directed, authorized, assented to, acquiesced in or participated in the commission of the offence is personally guilty of the offence and liable to punishment as provided for in the Act.

Recently, the federal Parliament enacted two statutes — the *Jobs and Growth Act, 2012* (Bill C-45), and the *Jobs, Growth and Long-term Prosperity Act* (Bill C-38) — that included amendments to the Act (the 'Amendments'). While the Amendments are largely focused on clarification, there are some substantive changes as well.

The Amendments have revised section 35 of the Act with respect to the alteration, disruption or destruction of fish habitat, probably the most well-known provision of the Act within the BC forest sector. Previously, section 35(1) prohibited any "work" or "undertaking" that resulted in harmful alteration, disruption or destruction of fish habitat. As amended, section 35(1) now also prohibits any "activity" that results in harmful alteration, disruption or destruction of fish habitat. The addition of "activity" as a category of prohibited acts serves as a catch-all that may significantly broaden the application of section 35(1).

The Amendments have also simplified the limitation period for the government to pursue a summary conviction under the Act. The Crown may elect to pursue a conviction under the Act "summarily" or by way of "indictment." In general terms, summary proceedings usually relate to less serious matters that expose the accused to a smaller penalty. Previously, the limitation on the Crown's ability to proceed summarily under the Act required the Crown to commence proceedings within two years of when "the Minister" became aware of the subject matter of the proceedings. Of course, this inevitably led to uncertainty as to when, exactly, "the Minister" became aware of something. The Amendments have done away with this uncertainty, and now the limitation period is simply five years measured from the date of the offence.

Some of the Amendments relate to the shared nature of the constitutional jurisdiction that the provincial and federal

governments have with respect to environmental matters. The federal government now has the legislative authority under the Act to enter into agreements with the provinces to facilitate cooperation and joint action in relation to areas of common interest to further the objectives of the Act. This might include, for example, cooperation and joint action among the federal government and the provinces to control the spread of aquatic invasive species.

Through these agreements, the Amendments also have the potential to reduce duplicative regulation in the forest sector. If a provision of the Act is the equivalent of a provincial regulatory provision with respect to a given subject matter, the federal government is now authorised under the Act to suspend the federal provision with respect to that subject matter in the province pursuant to an agreement under the Act. So, for example, if the federal government agreed that the protection of fish and fish habitat under section 57 of the *Forest Planning and Practices Regulation* was equivalent to the prohibition against alteration, disruption or destruction of fish habitat under section 35 of the Act, BC and the federal government could enter into an agreement whereby section 35 of the Act would not apply in BC. Of course, the Act would require that the agreement include provisions that would allow the federal government to effectively monitor the enforcement of the provincial legislation. But if such an agreement were entered into it would remove the potential for multiple enforcement actions in respect of different federal and provincial regulatory provisions that do the same thing. 🐟

Jeff Waatainen is a past adjunct professor of law at UBC, has practised law in the forest sector for over 15 years, and currently works in the Forestry Law Practice Group of Davis LLP's Vancouver office.

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Right Effort continued from Page 15

of risks to fish. Resulting direction to forest and land development (i.e. accepts risks, mitigate risks, alter development or avoid development) will involve both professional and administrative judgment.

A risk-based approach can be used to understand potential land-use effects on fish at the watershed, basin or TSA level. Management strategies can then be implemented in response. A risk-based approach that considers both current and future conditions can support informed and balanced decision making—ensuring that we are applying the right effort in the right place.

Acknowledgements

Randy would like to thank both Michael Milne (Hydrologist) and Rob Dolighan (Fisheries Biologist) for contributing to this article and the underlying work completed in the Horsefly River watershed. 🍷

Randy Spysma is a Registered Professional Forester and planner with Forsite Consultants Ltd. with 17 years of experience in area forest and land management planning. Recent experience includes the management of an interdisciplinary team completing strategic-level watershed risk analysis projects throughout the southern interior and in northwest BC.

Warttig References continued from Page 17

¹ Today over 14% of BC (or 13.5 million ha) is in some form of protected area, and significantly more is protected due to forest management constraints.

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In Memorium

It is very important to many members to receive word of the passing of a colleague. Members have the opportunity to publish their memories by sending photos and obituaries to editor@bcfp.ca.

The association sends condolences to the family and friends of the following member:

Eric Congdon Crossin

RPF #453

September 26, 1923 - May 4, 2013

After a long battle with Parkinson's, Eric passed away peacefully and under the compassionate care of the North Shore Hospice.



Eric was a veteran, born in Winnipeg and left school halfway through grade 10 at the age of 16 to join the navy. This experience forged a character of quiet courage, humility and compassion that ultimately defined his life. Upon leaving the navy, Eric married and spent the rest of his life on the west coast and attended UBC where he obtained a BSc in forestry.

Eric started his professional career in 1952 as assistant fire warden with Bloedel Stewart and Welch out of Campbell River. In spring 1954, he joined the fledgling MB Forest Research section under Dr. T.N. (Bill) Stoate, a retired Australian forester and a working whirlwind, who somehow sold his ideas to H.R. MacMillan. In the space of five years, the team established projects to study a number of topics, including forest nutrition, forest pathology, soils and soil fertility. This became the largest industrial forest research program in Canada.

It was at this time that Eric became interested in tree and stand measurement and statistics. Arising out of the research, Eric and Bill Stoate published a paper on site index determination in young Douglas-fir based on internodal height growth in *The Forestry Chronicle*. The economic downturn of the late 50s to early 60s resulted in the moth-

balling of the program and allowed Eric to move on to an illustrious period at BCIT. Eric taught at BCIT for two decades until his retirement in 1988. He had a happily divided loyalty, both to his students and to the forest. He cared deeply for both and was unstinting in his efforts to instill his passionate concern for the well-being of BC's forests in his students who would become its future stewards. Before and after his retirement, he spent many years assisting in the development of the Mt. Seymour Demonstration Forest. It remains a permanent and fitting tribute to his life and his love of the splendour of this province. Eric was predeceased by his beloved wife, Aileen Howes, in 2003, and his brother, Bob, in 2012. He will be missed by his four children, two sisters, five grandchildren, many nieces and nephews, extended family, colleagues and friends.

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Andrew Martin Spence, RPF
Kristin Anne Storry, RPF
Robert Harding Van Buskirk, RPF
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Kevin Jock Honeyman, RFT

REINSTATEMENTS FROM LEAVE OF ABSENCE (REGISTERED MEMBERS)

Stanley Glen Waneck, RFT

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Colin Trevor Campbell, TFT

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NEW RETIRED MEMBERS

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RESIGNATIONS (ENROLLED MEMBERS)

Dean James Benbow

REMOVALS

Judith Loreen Siemens

Membership Statistics

ABCFP—May 2013

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Christopher Joseph Perry, TFT

REINSTATEMENTS REGISTERED

Christoph Paul Gebauer, RFT

REINSTATEMENTS FROM LEAVE OF ABSENCE (REGISTERED MEMBERS)

Lisa June Wood, RPF
Lance Wingrave, RFT

REINSTATEMENTS (ENROLLED MEMBERS)

Steven R. Anley, TFT

The following people are not entitled to practise professional forestry in BC:

REMOVALS

Gary Allan Wallis

Log Watering continued from Page 13

Fisheries Act have received Royal Assent, but the accompanying regulation has yet to be produced. By the time this article is published, the much-awaited regulation is scheduled to be in place. The new way forward has been advertised as a further streamlining of the process, giving more leeway to qualified professionals to exercise their judgement, while at the same time, ensuring forestry operations adhere to the new policy and legislation. The goal is to reduce pressure on DFO capacity, and to allow projects to become operational more rapidly. More focus is anticipated on the “back end,” with heavier fines for non-compliance and more attention paid to results-based monitoring.

How future changes to federal legislation and regulation will impact coastal forestry

operations is still unknown. Undoubtedly, there will be growing pains, as both federal habitat assessors and forest professionals grapple to interpret the changes and incorporate the new ground rules. However things turn out, the changes that have recently been made will certainly have direct impact on coastal forestry; whether these impacts will be construed as positive or negative remains to be seen. 🐟

Doug McCorquodale, RPBio, is the owner and operations manager of Pacificus Biological Services Ltd. He has been practising fisheries biology on the North Island and Central Coast of BC for over 17 years with significant involvement in the forest sector since the inception of his career.

A Moment in Forestry

Submit your moment in forestry to Doris Sun at: editor@abcfp.ca



Furry Friends

Submitted by Sally Sellars

ABCFP member Sally Sellars, RPF, taking a walk through Lyons Creek with her furry friends.

Salmon Forests continued from Page 10

the watershed. Other factors include stream size and the predominance of red alder, a nitrogen fixer. This means that salmon subsidies do not always have a strong effect, particularly when the background productivity of a site is already high, when the water is too deep for bears to access the fish, or when watershed morphology or flow regimes limit nutrient retention.

The role of salmon in influencing riparian function is thus often greatest along low gradient, small to medium-sized streams. Conversely, we know that forests also have the strongest influence on the function of streams along smaller streams and headwaters compared to large downstream areas. Streamside vegetation strongly affects streams including the amount of light that reaches the channel, water temperature, the rate and kind of organic matter inputs, bank stability and channel structure. All of these factors affect salmon.

Under the *Forest and Range Practices Act* (FRPA), riparian areas around large (>1.5m) fish bearing streams are offered some protection from harvesting. These 40-100 metre wide buffers include a riparian reserve zone, with no harvesting permitted, and a riparian management zone with restrictions on harvesting. In contrast, small headwater and non fish-bearing streams (S4-S6 streams) are afforded less protection. These streams receive smaller buffers and only management zones, which in practice are often completely harvested. Ironically, this can negatively affect salmon populations because harvesting headwaters can influence stream flow, sedimentation and channel structure in the downstream reaches for 10-20 years or more post harvest. These effects have been studied at Carnation Creek, Stuart-Takla and others as a part of BC's Fish-Forestry interaction research (<http://www.for.gov.bc.ca/hre/ffip/>).

Since harvesting headwaters can negatively affect salmon in downstream reaches, this leads to several management questions: 1) Is it possible to increase protection of headwater streams and still maintain profits from forest harvesting? 2) Does it make sense to reallocate harvesting opportunities from headwaters back to productive downstream reaches?

In the Great Bear Rainforest, I think it makes the most sense to build community based forest economies. Local First Nations are reasserting their rights to their traditional territories and are engaged in government-to-government negotiations in resource management. Some feel that the current industrial forest model and tenure system may not be working. Profits for companies are poor, local jobs are few and costs will increase with more pressure for better environmental standards under ecosystem-based management. These local communities have extensive knowledge of salmon, their streams and ecological links such as the salmon-forest association, and thus are possibly in the best position to devise management strategies that balance the full range of forest values. An option to consider could be smaller-scale community-based forest economies with more local processing of wood products and a focus on high quality, fast growing trees subsidized by healthy populations of salmon. 🐟

Morgan Hocking, PhD, is a community ecologist currently working as the science coordinator for the Central Coast First Nations. Much of his research has centered on how spawning Pacific salmon affect terrestrial and aquatic food webs in the Great Bear Rainforest in British Columbia.

1 Husack, C., Harte, M and Chan, S., 2009. The Economics of Invasive Species. University of Oregon, Corvallis, Oregon.

Community Forestry continued from Page 21

emphasize different options in their choice of silviculture systems. Despite the high elevation, long growing seasons allow them to capitalize on rotations approximately half the length of our own. Capulalpam's community forest managers focus on small openings and rely on natural regeneration as the primary means of stand re-establishment. Artificial regeneration was generally only used to fill gaps where natural regeneration had failed to sufficiently re-stock the stand. Sustainable forest practices are a constant in both their short and long-term planning.

The trip exceeded all expectations for the

11 Selkirk students, who shared their experience with fellow students, faculty and members of the public during a slide show presentation several weeks after the trip. "It was really eye-opening to see such a different approach to forestry," enthused Nick Rothenburger in summing up his thoughts on the trip.

Stefanie Bulmer concurred with her classmate's assessment, adding, "It will definitely influence future management decisions that I'll make in my forestry career." It required a remarkable cooperative effort between administrators, instructors, students and sponsors to make the trip happen but we now know

that with the proper effort and a little luck, an educational experience like this can transform from dream to reality. 🐟

Carol Andrews, RPF, is an instructor in the forest technology program at Selkirk College in Castlegar. Carol has a master's degree in interdisciplinary studies with a focus on global change. She worked as a forestry consultant for over 20 years before joining the college.

Jesper Nielsen, RPF, worked as a forest manager in Nakusp for 20 years before joining the forestry faculty at Selkirk in September 2012. Jesper has a degree in international relations from UBC, but gravitated back to his logging town roots and completed his forestry degree from UBC in 1993.



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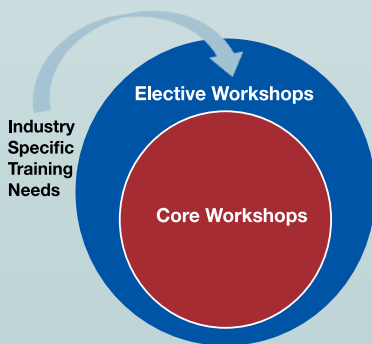
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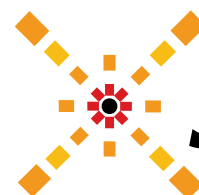
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