

February 2007



Report #1



3rd Annual Forum and Annual General Meeting

January 23-24, 2007





The Third Annual Forum and Annual General Meeting for the Invasive Plant Council of BC was held in Richmond, BC on January 23 and 24, 2007. A total of 109 people attended (Appendix 1) and the feedback on the forum was very positive. The Invasive Plant Council thanks the following companies and agencies for sponsoring the forum: Dow AgroSciences, Taseko Mines Ltd., the British Columbia provincial government, the Canadian Food Inspection Agency, Environment Canada and Natural Resources Canada.

The following summary provides an overview of the concurrent workshops held on the first day followed by guest speakers and information sessions the second day. More information on the presentations and video highlights can be found on the IPC website at www.invasiveplantcouncilbc.ca.

Three workshops on three topics were presented to address key priorities raised by members at the 2nd annual forum: the roles of the horticulture industry, bio-control in invasive plant management, and management techniques for priority invasive species.

Responsible Gardening ... What is Needed in BC?

Speakers in this session provided their perspectives on making invasive plant management a priority for the horticulture industry at the national, provincial and local levels.

Making Codes of Conduct a Reality Across Central and Western USA

Val Vartanian, The Nature Conservancy and Missouri Botanical Gardens

Renowned scientist E.O. Wilson has stated that, on a global basis, the second greatest destroyer of biodiversity after habitat destruction is the invasion of exotic species. The United States loses an estimated \$138 billion annually from the impacts of invasive species, compared to only just over \$1 billion spent annually on their management.

The six principles of the St. Louis Declaration (see sidebar) led to the establishment of three Voluntary Codes of Conduct for the horticulture industry. The Codes of Conduct are intended to reduce the introduction and spread of invasive plants from gardens and landscaping. The Codes were developed by, and are applicable to, nursery professionals, landscape architects and the gardening public.

Support by garden writers and the media can help to encourage voluntary adherence to the Codes of Conduct. Municipal plant lists often require updating to exclude invasive plant species, and landscape architects should avoid prescribing invasive plants in site plans; otherwise, municipalities may inadvertently be a source of invasive species.

The purposes of the Invasive Plant Council of British Columbia are to educate the public and professionals about invasive plants and their risk to the world's ecosystems, conduct research relating to invasive plants and make the results of this research available, and carry out other activities that support education and research.

Principles of the St. Louis Declaration

1. Plant introduction should be pursued in a manner that both acknowledges and minimizes unintended harm.
2. Efforts to address invasive plant species prevention and management should be implemented consistent with national goals or standards, while considering regional differences to the fullest extent possible.
3. Prevention and early detection are the most cost-effective techniques that can be used against invasive plants.
4. Research, public education and professional training are essential to more fully understanding the invasive plant issue and positively affecting consumer demand, proper plant use, development of non-invasive alternatives, and other solutions.
5. Individuals from many fields must come together to undertake a broad-based and collaborative effort to address the challenge, including leaders in horticulture, retail and wholesale nurseries, weed science, ecology, conservation groups, botanical gardens, garden clubs, garden writers, educational institutions, landscape architects, foundations and government.
6. A successful invasive plant species strategy will make use of all available tools including voluntary codes of conduct, best management practices, and appropriate regulation. Codes of conduct for specific communities of interest are an essential first step in that they encourage voluntary initiative, foster information exchange, and minimize the expense of regulation.



Industry Support for Invasive Plant Management

Jane Stock, BC Landscape and Nursery Association

The BC Landscape and Nursery Association (BCLNA) and its many partners—landscape architects, turf grass associations, united flower growers, golf course specialists and others—have an important role in ornamental horticulture. Understanding the sociology of change is important for helping people adopt new practices to manage invasive plants. To help address the need for change, the BCLNA and the Invasive Plant Council of BC co-hosted a workshop in December of 2006 focused on responsible gardening.

There are many environmental pressures in ornamental horticulture that must be balanced with business concerns. The horticulture industry needs science-based decision-making, realistic expectations for change, and a BC industry action plan developed with the Invasive Plant Council and ornamental sector representatives. The action plan requires sufficient resources for its development and implementation, and careful attention to actions that impact on businesses.

Garden Centres – Proactive Approaches on the Front Line

Kris Sutherland, Gardenworks Capilano

As a company, Gardenworks has been very proactive in its approach to limiting the spread of invasive plants. For example, Gardenworks Capilano has voluntarily pulled English ivy from its shelves and produced brochures for customers that describe the invasive characteristics of English ivy and recommend alternative species for purchase. Gardener awareness of invasive species is just beginning and will take time, similarly to how people have needed time to incorporate recycling into their lives.

Partnerships are essential to increase awareness and change gardening practices. Garden writers and celebrities have an important role in promoting the message, along with garden clubs, botanical gardens, schools (to reinforce the message to adults from children), master gardeners, government agencies, non-profit groups and industry groups. All partners must send a consistent message about keeping invasive plants out of gardens, thereby necessitating coordinated efforts among many for success.

Bio and the Beast

Speakers in this session discussed approaches to bio-control programs at the federal and provincial government levels, as well as bio-control research projects for graduate students at universities.

An Inside Look at Bio-Control in Canada – Today and Tomorrow

Rosemarie De Clerck-Floate, Agriculture and Agri-Food Canada

The goal of the bio-control program under Agriculture and Agri-Food Canada is to reunite the agent with the invasive plant to achieve control and low levels of both the agent and the invasive plant, not eradication of the target plant.

Bio-control works! Two-thirds of released agents establish successfully. About 25 percent of bio-control projects are successful compared to only 0.007 percent of tested chemicals that are marketable pesticides. An essential component of bio-control is climatic matching. For bio-control to be effective, it is important that Canada work jointly with the United States; however, there are political and regulatory differences between these jurisdictions. There have been far more releases approved in Canada, particularly in the west (e.g., in 2000, 51 of 241 releases across Canada were in BC).

The bulk of funding for bio-control occurs at the front end on exploration and risk assessment studies. More attention and funding are needed for mass propagation, field releases, establishment and impact assessments, and release strategy development.

Looking at Bio-Control in BC – What is Next?

Susan Turner, Ministry of Forests and Range

The bio-control model in BC follows a biological control cycle: from local invasive plant manager input, to plant ranking, through to agent pursuit, development, field testing and monitoring of agents, and finally to effectiveness evaluation. This process relies on maintaining international relationships with the scientific community, and an understanding of legislation and legal requirements. It also needs long-term committed funding and capacity, and input from all invasive plant managers across the province.

British Columbia has three responsibility levels of bio-control agent management: primary, secondary, and tertiary. Primary falls under the responsibility of the Forest Practices Branch because these agents are under the tightest control and require the greatest investment. These agents are released onto Crown to initiate their work in reducing the current population of a specific species.

The Ministry of Forests and Range will be launching a new Biological Control website in April 2007 that will include info on bio-control agents in use in BC, as well as those undergoing screening. See <www.for.gov.bc.ca/hfp/invasive/index.htm>.



Involving Students in Bio-control – the University Approach

Judy Myers, University of British Columbia

Invasive plants are a valuable subject of study for graduate students who are interested in exploring ecological interactions. Invasive plant research is underway at the University of Victoria, Simon Fraser University, University College of the Fraser Valley, Trinity Western University, Kwantlen College, and the BC Institute of Technology. General research questions include: Why are plants invasive? How do they compete with native plants? How do they respond to the environment and herbivores?

Bio-control agents are ideal for such research because they can be tightly controlled. Past projects have improved our understanding of invasive plants. For example, several projects have shown that the root-boring weevil, *Larinus*, is effective at controlling knapweed. A comprehensive list of active research projects is needed and, once developed, should be widely circulated to increase collaboration.

Controlling Those Aliens!

Speakers in this session on best management practices addressed hawkweeds, giant hogweed and ox-eye daisy. Speakers covered each plant's background and introduction to North America, characteristics, preferred habitat and impacts in BC. Specific regimes for control were also provided along with, where available, a useful website on best management practices.

Clipping the Wings of Invasive Hawkweeds in the West

Linda Wilson, University of Idaho

Meadow hawkweed, the first non-native hawkweed species, was discovered at the military base in Sandpoint, Idaho in 1945. There are now 14 non-native, invasive hawkweed species in North America (of which eight species of invasive hawkweeds grow in BC), which infest over 2.5 million hectares, spreading at a rate of 16 percent annually. The hawkweeds are difficult to distinguish and, as a result, a key was developed to identify and differentiate between native and invasive hawkweeds <www.for.gov.bc.ca/hfp/publications/00230/Hawkweed%20key_PNW_R3-June06.pdf>.

Introduced hawkweeds are a serious threat in BC. They have a high invasive potential, primarily because they are clonal, apomictic (cross-pollination is not necessary to produce seed) and producers of adventitious roots. Some hawkweed species have obligate associations with mycorrhizal fungi, and invasive hawkweeds establish such associations sooner than native hawkweed species.

Management options include herbicide and fertilizer regimes, which can achieve at least 98 percent control, and a potential bio-control agent (wasp) currently undergoing testing. Fringe and isolated infestations are containable. Long-term control may hinge on management of soil fertility.

A hawkweed consortium was initiated to reduce the species' spread in the Pacific Northwest. The goals of the consortium are to establish an effective bio-control program, increase awareness of hawkweed, manage current infestations, complete risk assessments, survey and map existing infestations, develop local strategies and conduct relevant research. The hawkweed website is www.ag.uidaho.edu/hawkweed.

Giant Hogweed: Regional and Site-Level Control Strategies

Nick Page, Raincoast Applied Ecology

Giant hogweed has a limited range in BC, occurring on southeastern Vancouver Island and the lower Fraser Valley. It was first recorded in the 1920s at French Creek on Vancouver Island and in North Vancouver; both sites probably originated from gardens. Giant hogweed prefers moist fertile sites and often invades riparian areas. It produces up to 120,000 seeds per plant and can grow up to 5 metres tall. When the foliage dies in the winter, streambank erosion may increase from the lack of ground cover. Giant hogweed is also a health and safety hazard: phototoxic sap in its stems cause dermatitis to people and animals.

Control options include root cutting, repeated mowing, herbicide application and mulching with a geo-textile or wood chips. Regional strategies should incorporate the addition of giant hogweed to the provincial noxious plant list and municipal bylaws, increasing public awareness, and focusing on eradication in small areas. The Giant Hogweed Best Management Practices Manual is available at www.giant-alien.dk.

Ox-eye Daisy – What Can Be Done?

David Ralph, Ministry of Agriculture and Lands

Ox-eye daisy is an invasive plant seen frequently around BC. It is a European perennial, introduced as an ornamental and as seed in legume and crop seeds. Ox-eye daisy grows in low-nutrient, sulphur-deficient soils and has many detrimental impacts, including tainting milk if included in forage or silage, reducing crop and forage yield and quality, and hosting pathogens and nematodes. Barriers to control include prolific seed production (one plant can produce 25,000 seeds), unpalatability to grazing cattle, and the appealing flower that is often confused with scentless chamomile or Shasta daisy.

Control options include different regimes of herbicide and fertilizer to address nutrient deficiencies. Cultural control methods for ox-eye daisy include seeding a legume component to quickly out-compete it, since a vigorous crop of a desired species will often keep ox-eye daisy under control. No bio-control option is currently available.

The Pine Pass Project incorporates a single-agency delivery model designed to contain the spread of ox-eye daisy. It includes public awareness and chemical control trials. So far, the best results have occurred by combining a herbicide treatment with a nitrogen-sulphur fertilizer to increase competition for established grasses. Prevention is the best control for this invasive plant.



Building Success in Invasive Plant Management

Mara Johnson, Center for Invasive Plant Management, Montana State University, Bozeman (www.weedcenter.org)

Invasive plant managers in Montana have been talking enthusiastically about the Invasive Plant Council of BC. And they have some valuable insight to share with us here, such as:

1. **Find a positive message**, not just to “kill weeds” but to save or conserve certain things in the landscape, and **state this message clearly right from the start**. Identify how invasive plants negatively affect habitats and human activities. Get peoples’ views on this point for the strategic plan. Be warned: it might get emotional! However, the process is inspiring and it brings in non-traditional participants.
2. **Show the value of weed-free areas**. For example, in Montana, Weed Prevention Areas have been established and signs are displayed on fences that state “Protecting Montana from Invasive Weeds.” Range riders can identify areas and use GPS to locate infested areas.
3. **Create a sense of pride**. Produce publications that help people understand the value of the land.
4. In the art of collaboration, the whole is greater than the sum of the parts. **Show participants how sharing tasks will be easier**. For example, during National Weed Awareness Week in Washington, DC, people meet and get reinvigorated before talking with their senator. Collaboration includes outside facilitation where necessary to help the group get results. Use what works, fit actions to goals.
5. **Make it fun and inclusive**. Share and appreciate the beauty of the landscape with participants. Remember to have fun yourself in this challenging and important work.

The suppression of giant reed in California to recover habitat for the songbird, Least Bell’s vireo, is an important success story. The bird population has rebounded after habitat restoration. Celebrate the successes!

After participants met in one of the 13 perspectives groups, the morning plenary and concurrent sessions were followed by the Invasive Plant Council of BC annual general meeting and afternoon plenary sessions with updates from government representatives and other speakers.

Perspectives Meetings

Forum participants met in their perspectives groups to seek input for the Invasive Plant Council’s priorities and appoint or confirm their director. A summary of the key issues by perspectives group is provided in Appendix 2.

Welcome from The Lieutenant Governor of British Columbia



The Lieutenant Governor of BC, fourth from the left, with Master Sergeant (back row) and Invasive Plant Council staff and associates.

The Honourable Iona Campagnolo

The Lieutenant Governor introduced herself as a long-standing garden judge and a keen gardener at Government House, where there are two paid staff and 268 volunteers tending the grounds. Her Honour has personally undertaken work to control English ivy, Scotch broom and Himalayan blackberry on the property, and is always watching for new invasive species to control early on.

The Lieutenant Governor demonstrated her knowledge of invasive plants by providing many examples of their impacts on BC’s environment and economy, and explaining that much change is required in all aspects of our society to address invasive plants and minimize their establishment and spread. Her Honour stressed that we need to look to the knowledge among First Nations about native plants that are more suitable to our landscapes than invasive species. Climate change may be shaping new forests for us, and we must watch for outbreaks of invasive plants, particularly after the mountain pine beetle outbreak in the Interior.

The Invasive Plant Council of BC has an impressive Board of Directors and everything else needed to influence change. Her Honour reminded us that the Invasive Plant Council was initiated from the Fraser Basin Council Board meeting at Alkali Lake where there was a call for more collaboration in the management of invasive plants.

Her Honour was presented with a recent coin issued by the Royal Canadian Mint: the new 50-cent piece depicting the ox-eye daisy—a non-native plant that is now found across Canada.



Weed Assessment Risk in the Canadian Food Inspection Agency

Karen Castro, Canadian Food Inspection Agency

A case study of giant reed was used to illustrate the steps used by the Canadian Food Inspection Agency to carry out a Pest (or Weed) Risk Assessment. The steps are as follows:

- Step 1: Quarantine the pest.
 Step 2: Develop a pest fact sheet.
 Step 3: Conduct a Pest Risk Assessment.
1. Likelihood of introduction – potential pathways
 2. Consequences of Introduction
 - Establishment potential and rating guidelines
 - Spread potential (natural and human initiated) – considers the plant's biology, rating guidelines
 - Potential economic impact and rating guidelines
 - Potential environmental impact

The overall *Risk Assessment* rating = *Likelihood* score x *Consequences* score. Uncertainty is based on conflicting, lack of, or incorrect information.

Following the development of the risk assessment, the Canadian Food Inspection Agency seeks stakeholder input and produces a risk management document that includes risk management options and a risk management decision. A list of weed risk assessments that have been completed or are underway, as well as information about other models for weed risk assessment are available (castrok@inspection.gc.ca). One useful resource is the Global Invasive Species Database website.

Invasive Plant Council of British Columbia Video

Following the Aliens as Foes forum in 2006, the Invasive Plant Council developed a 10-minute video to use for promotional and educational purposes. The draft video was shown to the audience to solicit feedback for finalization. The video will be available to groups and on the Council's website to introduce invasive plants and their impacts and describe how viewers can help to manage invasive plants.

Two sets of concurrent sessions were aimed at providing practical management information, as well as updates on new and developing invasive plant initiatives across BC.

Non-Herbicidal Treatments of Japanese and Himalayan Knotweed on the Queen Charlotte Islands

Mike Cheney, Northwest Invasive Plant Council

The Queen Charlotte Islands flora provides very important evidence about BC's natural history. However, invasive plants are moving onto the islands, and the unique flora deserves particular attention. The highway running north-south on Graham Island and logging roads are the main corridors for the introduction of invasive plants through construction, road maintenance and dumping of fill material.

Both Himalayan and Japanese knotweeds, which have become species of particular concern, are out-competed by salmonberry and thimbleberry, unless the knotweeds have a head start on growth. Knotweed seems to grow within 100 m of the marine shoreline, but does not penetrate into the zone dominated by the halophytic *Leynys mollis* spp. This growth characteristic led to the assumption that knotweeds are sensitive to saltwater.

Treatment of knotweeds with seawater was enabled by their location within 100 m of saltwater, but above the tidal line. After treatment (dousing with saltwater), knotweed leaves begin wilting immediately and browning after two days. Cut stems were filled with salt in notches, after which they turned red. Adventitious roots died. Knotweed cannot tolerate saline soil conditions and possibly rhizomes can be desiccated.

Prisoners and Plants

Becky Brown, Ministry of Agriculture and Lands

The Ministry of Agriculture and Lands is working to develop new initiatives for invasive plant management on Crown lands. The Corrections Weed Removal Work Program, which gives inmates work experience and skills development, involves training minimum-security inmates scheduled for release in 3-9 months. Training includes invasive plant biology and identification, the pesticide applicators course and certification, and integrated vegetation management.

The program started in October in Nanaimo to control Scotch broom and gorse along Forest Service roads and transportation corridors, and in provincial parks within an hour's drive from the facility. This interagency collaboration considers the needs and logistics to implement treatment methods in areas in which the provincial government or contractors are not currently working. The treatments applied vary regionally and may involve different ministries, in partnerships with local government, regional weed committees and highway maintenance contractors. Funding is provided by both the ministries of Agriculture and Lands, and Employment and Income Assistance, which also provides training and equipment.

The program will be expanded to four other facilities: Fraser Region, Chilliwack, Kamloops and Prince George, and possibly also to a women's correctional facility. The provincial government is committed to funding the project for the next three years, and will work with land managers to identify areas needing treatment.



Invasive Alien Plant Program – Boldly Going Where No Application Has Gone Before!

Laura Kristiansen, Ministry of Forests and Range

The Invasive Alien Plant Program application has undergone many enhancements and changes since it came on-line in 2006. It is an Oracle-based, centralized, on-line database with mapping capacity and display. It houses data concerning treatment and monitoring records, invasive plant inventories, and future management plans. There are two modules: Online Data Entry (for authorized agencies only) and Online Map Display (open to the public). Data integrity is maintained by assigning ownership of records to agencies.

The Invasive Alien Plant Program structure is analogous to a filing cabinet with drawers for sites and folders for invasive plants within each site. The system can be used to retrieve data through searches or extracts, and for viewing data with the map display, turning layers on and off and querying for invasive plants. The Invasive Alien Plant Program website is at www.for.gov.bc.ca/hfp/invasive/intro.htm.

What Else Can Local Government Do?

Bill Huot, Ministry of Community Services

Municipalities and regional districts can legislate against invasive plants in different ways. The *BC Weed Control Act* is enabling legislation, but it is only applicable to invasive plants on the provincial noxious weed list. If municipalities and regional districts want to enforce against invasive plant species not on this list, they can do so through the *Community Charter* or the *Local Government Act*, respectively.

It is generally recommended that a local government should not specify the enabling legislation used when creating a bylaw. This way, if the bylaw is challenged there are several different clauses under the *Community Charter* or *Local Government Act* that can be used to justify the bylaw in court.

ANNUAL GENERAL MEETING

Please refer to Appendix 3.

Federal Alien Invasive Species Initiatives

Daryl Seip, Environment Canada

The *Invasive Alien Species Strategy for Canada* is designed to establish a coordinated national policy and management framework that minimizes the risk of invasive alien species to the economy, environment and society. The strategy includes a federal five-year investment of \$85 million for new measures. Environment Canada provides leadership and coordination to implement the strategy and its action plans with respect to five pillars: information and risk analysis, science and technology, regulatory framework, engaging Canadians, and informational cooperation for decision-making.

From the strategy, the *Invasive Alien Species Partnership Program* has \$5 million allocated over four years to engage

Canadians in actions to prevent, detect, respond and manage invasive species. This partnership program provides leverage funding, up to \$50,000 annually for a project, but avoiding permanent support for activities to a wide range of eligible recipients. Most of the 58 approved projects involve the prevention of invasive alien species. British Columbia has the highest number of approved projects with just over \$400,000 allocated. Projects will receive funding in 2007/08, and the next call for proposals will be in February, 2007. For more information visit www.cbin.ec.gc.ca/primers/ias.

Provincial Government Challenges and Opportunities

Duncan Williams, Ministry of Agriculture and Lands

An overview was provided of recent advances in invasive plant management in BC from different agencies and associations. The task for the ministry was to take a new look at how the province is managing invasive plants, focusing on noxious weeds. For example, what are stakeholders and provincial government doing? And how should invasive plant management activities be funded on Crown land?

Conclusions include:

- The provincial government is not providing the guidance and leadership it should for the 94 percent of BC that is Crown land;
- The exponential spread of some species needs immediate attention, as invasive plants are out-competing native species;
- The issue of invasive plants in areas with mountain pine beetle mortality needs to be addressed; and
- The adverse impacts of invasive plants upon species at risk are a concern.

General observations include:

- There is insufficient leadership and governance on the issue;
- More commitment by all parties is required;
- Utilities, industry, and local government are willing to act if the provincial government provides the leadership and direction; they need to work together more;
- Leaseholders must fulfill their responsibilities. The definition of "occupier" in the *Weed Control Act* will determine the leaseholder and clarify roles;
- Guidance is required on relevant legislation;
- Although the federal government manages invasive plants on areas under federal jurisdiction, this needs more engagement; and
- More collaboration is required by all, with improved leadership by the provincial government.

In British Columbia, we need to:

1. Define provincial roles and responsibilities.
2. Develop a communications strategy.
3. Improve partnerships with non-provincial government agencies.
4. Work with the Invasive Plant Council of BC and stakeholders.
5. Have a clear legislation framework.



6. Establish innovative funding options that have long-term stability. Engage industry and federal government and find innovative sources within provincial government.
7. Implement the *Invasive Plant Strategy for BC*.

Lessons Learned, Where Do We Go From Here?

Val Vartanian, *The Nature Conservancy*

Based on lessons learned, The Nature Conservancy recommends that the Invasive Plant Council and invasive plant managers do the following:

- Encourage adherence to codes of conduct for nurseries, landscape architects and the gardening public;
- Develop accurate, objective criteria for determining invasive plants;
- Work regionally, not locally, using ecological boundaries to be consistent for a plant across political boundaries. (e.g., IPANE);
- Have regulation that works;
- Improve the identification of invasive plants in the field, including cultivars;
- Develop and provide business incentive programs aimed at eliminating stock;
- Identify and focus on the cause through a process, not just treat the symptoms (individual invasive plant species);
- Compile regional lists with information on how to identify and rank invasive plants (develop objective criteria);
- Address cultivars and hybrids in weed risk assessments;
- Use a regional approach to regulations (since state/county-level regulations disrupt commercial movements);
- Revise quarantine requirements (USDA APHIS) to test for plant invasiveness as well as plant pests;
- Consider business incentives, including stock buy-outs, phase-out plans, public education and lowering demand from large-scale users such as highways and landscapers;
- Get everyone involved! Everyone must be at the table to find the solutions and implement them effectively; and
- Invasive Plant Councils play important roles by monitoring, providing early detection, serving as information clearing houses, facilitating meetings of experts and stakeholders, and developing regional invasive species strategies.

Control of Invasive Plants on Crown Land in BC: A Forest Practices Board Special Report

Brian Wikeem, *Solterra Resources Inc. on behalf of the Forest Practices Board*

The Forest Practices Board examined the status of invasive plant management in BC, focusing on range and tenure holders under the *Forest and Range Practices Act* (FRPA). During the process, legislation and forest and range use plans were reviewed, and government staff and tenure holders were interviewed. The investigation and report focused on seven issue areas. The report is currently awaiting comment from the Ministry of Forests and Range.

Some of the report's recommendations are already being implemented, as the report was developed during a transition

phase. Some key points include:

- Invasive plant legislation is complex and confusing for tenure holders.
- FRPA has Section 47 (cannot introduce or spread invasive plants) and three regulations (Forest Planning, Woodlot Planning, Range Planning and Practices).
- Confusion exists over what plants are legislated as invasive. FRPA has 42 species listed under the Invasive Plants Regulation.

The findings of the Forest Practices Board include:

- The level of chemical and biological control treatments has declined since 2002.
- More effort is needed in on-the-ground delivery of treatments.
- There is little involvement by tenure holders in program delivery over the next five years.
- Awareness of the problem and even knowledge for plant identification is low.
- Recreation and other uses affecting invasive plants are not addressed in FRPA.

Recommendations include:

1. Invasive plant lists should be reviewed and consolidated into one list.
2. Inventories should include all species on the FRPA list to assist licensees in preparing operational plans.
3. The linkages between FRPA, the *Weed Control Act* and the *Integrated Pest Management Act* need clarification so that all parties clearly understand roles and responsibilities.
4. Training courses for licensees should be developed to increase skills in plant identification and use of the Invasive Alien Plant Program application.
5. The Ministry of Forests and Range should consider amending section 26 of FRPA (control of insects, diseases, animals and abiotic factors).

Some of the recommendations are already being implemented, as the report was developed during a transition phase. The report is available at www.fpb.gov.bc.ca – go to “special reports” and then “completed special reports.”



Appendix 1. Forum Participants

First Name	Last Name	Organization
Lynne	Atwood	Genoa Environmental Consulting
Duncan	Barnett	BC Cattlemen's Association
Henry	Benskin	Ministry of Forests and Range
Michael	Betts	Ministry of Agriculture and Lands
Lionel	Borges	C.E. Jones & Associates Ltd.
David	Borth	Ministry of Forests and Range
Becky	Brown	Ministry of Agriculture and Lands
Karen	Castro	Canadian Food Inspection Agency
Sandy	Cesselli	Ministry of Forests and Range
Mike	Cheney	Northwest Invasive Plant Council
Kerry	Clark	Ministry of Agriculture & Lands
Dr. David	Clements	Trinity Western University
Dusty	Cooper	DJ Silviculture Enterprises Ltd.
Amber	Cowie	Grasslands Conservation Council of BC
Juliet	Craig	Silverwing Ecological Consulting
Stuart	Craig	SMC Consulting
Laura	Darling	Ministry of Environment
Cathy	Davidson	
Glen	Davidson	Private Individual
Rosemarie	De Clerck-Floate	Agriculture & Agri-Food Canada
Marsha	DeWolf	Ministry of Forests and Range
Lesley	Douglas	GVRD Parks
Lisa	Dreves	Langley Environmental Partners Society
Bob	Drinkwater	BC Forest Service
Andrea	Eastham	Northwest Invasive Plant Council
Chris	Easthope	Ministry of Forests and Range
Percy	Folkard	Ministry of Forests and Range
Bob	Fowler	Ministry of Forests and Range
Jo-Ann	Fox	Southern Interior Weed Mgmt. Committee
Carla	Fraser	Elk Valley Coal Corp.
Bruno	Gallant	Canadian Food Inspection Agency
Barry	Gibbs	Dow AgroSciences
Bob	Godfrey	Horsefly Cattlemen's Assoc.
Peter	Goetz	BC Parks
Marie	Goulden	Dept. of National Defence
Bill	Granger	City of Port Coquitlam & Recreation
Jude	Grass	Federation of BC Naturalists
Moira S.	Greaven	Botanical ImpRESSIONS
Brian	Haddow	Agriculture and Agri-Food Canada
Marty	Hafke	Tembec Industries Inc.
Jeff	Hallworth	Ministry of Forests and Range
Dawn	Hanna	Greater Vancouver Invasive Plant Council
Brian	Harper	BC Ministry of Agriculture
Hilary	Harrop-Archibald	
Bill	Huot	Ministry of Community Services
Caroline	Jackson	University of British Columbia
Amanda	Jarrett	Amanda's Garden Consulting Co.
Lisa	Jarrett	Dow AgroSciences



First Name	Last Name	Organization
Mara	Johnson	MSU - Center for Invasive Plant Management
Crystal	Klym	Ministry of Environment (Consultant)
Graham	Knell	District of North Vancouver
Cathy	Koot	UBC Alex Fraser Research Forest
Laura	Kristiansen	Ministry of Forests and Range
Gail	Lucier	Fraser Basin Council
Conway	Lum	GardenWorks
Leslie	MacDonald	Ministry of Agriculture and Lands
Catherine	MacRae	Ministry of Forests and Range
James	Manuel	Kamloops Indian Band
Marian	McCoy	Marmot Communications
Allison	McDonald	Cariboo Regional District
Denise	McLean	Ministry of Agriculture and Lands
Eric	Meagher	Vancouver Parks
Dennis	Meier	Peace River Reg. Dist.
Val	Miller	Ministry of Forests and Range
Alison	Millham	Comox Valley Naturalist Society
Jenny	Mingo	Terasen Gas
Peter	Mohammed	Spectrum Resource Group Inc.
Rhoda	Mueller	Regional District of Central Okanagan
Judy	Myers	Dept. of Zoology & Faculty of Ag. Sciences - UBC
Rod	Nataros	NATS Nursery Ltd.
Nick	Page	Raincoast Applied Ecology
Kristy	Palmantier	Ministry of Environment
Nathan	Pehowich	FTP Sustainability Contracting
Jane	Perry	J. Perry Resource Communications
Al	Planiden	Ministry of Transportation
Dave	Polster	Polster Environmental Services Ltd.
Don	Pongracz	Aboriginal Agricultural Educational Society of BC
Joe	Post	Thompson Nicola Reg. Dist.
Dave	Ralph	Ministry of Agriculture and Lands
Paul	Rehler	Ministry of Forests and Range
Jamie	Richardson	Canadian Food Inspection Agency
Kristina	Robbins	South Okanagan Similkameen IPS
Michael	Roboz	Cascadia Society
Jodi	Romyn	Invasive Plant Council of BC
Cindy	Sayre	VanDusen Botanical Gardens
Andrea	Schiller	Natural Resources Canada
David	Schmidt	Country Life in BC
Paul	Schorn	Dow Agro Sciences
Lisa	Scott	South Okanagan Similkameen IPS
Daryl	Seip	Environment Canada
Ernie	Sellentini	Comox Valley Naturalist Society
Jacqueline	Shaben	Greater Vancouver Invasive Plant Council
Martin	Sills	Ministry of Agriculture and Lands
Mike	Simpson	Fraser Basin Council
Coleen	Stevens	Ministry of Forests and Range
Barb	Stewart	Boundary Weed Mgmt Committee



First Name	Last Name	Organization
Karen	Sundquist	Alberta Invasive Plants Council
Tanya	Thomson	Regional District of Bulkley Nechako
Ron	Trickett	BC Cattlemen's Association
Susan	Turner	Ministry of Forests and Range
Val	Vartanian	The Nature Conservancy/Missouri Botanical Gardens
Michael	Verschuur	BC Transmission Corporation
Gail	Wallin	Invasive Plant Council of BC
Tom	Wells	BC Transmission Corp.
Brian	Wikeem	Solterra Resources Inc.
Irene	Wilkin	PMRA, Health Canada
Duncan	Williams	Ministry of Agriculture & Lands
Linda	Wilson	University of Idaho
Pamela	Zevit	Adamah Consultants

Appendix 2. Summary of Priorities Submitted at Perspectives Meetings

Perspective	Top Issues for the Invasive Plant Council to Address in Next 1-5 Years
Conservation and wildlife	<ol style="list-style-type: none"> 1. Raise awareness and highlight successes through media coordination. 2. Secure long-term funding. 3. Provide a central place (website) to house all invasive plant information that is accessible to all interested parties.
Agriculture	<ol style="list-style-type: none"> 1. Awareness: Grow a sample of potted plants for display to increase the profile of invasive plants and economic impacts. 2. Education: Integrate public and industry, and contribute to a paradigm shift to integrated land management and multiple land use. 3. Advocate for certain invasive plants to be listed in a 'funding' category. 4. Associate invasive plants with food security and a sustainable society and community.
Horticulture	<ol style="list-style-type: none"> 1. Develop educational materials including alternative plant lists. 2. Promote participation and collaboration of all stakeholders. 3. Develop a certification program to recognize businesses that do not spread or introduce invasive plants.
Transportation ways and roadsides)	<ol style="list-style-type: none"> 1. Develop a ~4-page information sheet for use with the (rail public, outlining the value of invasive plant management and reasons to manage, including the downside of no action. 2. Identify issues. 3. Facilitate the development of tools to manage the identified issues, including political support of industry and university registrations.



Perspective	Top Issues for the Invasive Plant Council to Address in Next 1–5 Years
Forestry	<ol style="list-style-type: none"> 1. Develop: <ol style="list-style-type: none"> a. Good education and public awareness for the forest industry (i.e. displays specific to forestry for ABCPF, Truck Loggers forum and silviculture associations (SISCO, CSC and NSC), b. Cost/benefit analysis for industry with BC examples, and c. Best management practices. 2. Funding is needed for long-term programs (not just year to year projects.) 3. Specific outreach initiative for forest industry education (tied on to top priority #1a).
Federal government	<ol style="list-style-type: none"> 1. Keep working toward improved communications and clarifying agency roles (#1 & #2 issues). 2. Work with horticulture industry to develop BMPs. 3. Work with federal government to tighten up importation legislation as well as inter-provincial trade legislation.
Mining	<ol style="list-style-type: none"> 1. Encourage the Ministry of Energy, Mines and Petroleum Resources to develop and implement invasive plant management plans for exploration operations and gravel pits. 2. Work closely with Ministry of Transportation and Highways regarding gravel pits. 3. Develop a brochure related to mining. 4. Encourage the Ministry of Energy, Mines and Petroleum Resources to have a requirement for IP management plans in Mine Permit Applications.
First Nations	<ol style="list-style-type: none"> 1. Educate and communicate with our communities. 2. Help leverage funding. 3. Develop integrated management plans – strategy. 4. Mountain pine beetle and rangelands.
Regional weed committees	<ol style="list-style-type: none"> 1. Long-term, stable core funding for local weed committees. 2. Facilitate regional weed committees and technical committee to establish agreed-upon containment lines and strategies for invasive plant species within and between regions. 3. Establish a web forum for coordinators. 4. Facilitate coordination and expansion of weed warrior program to other regions. 5. OTHER ISSUES (not ranked): <ol style="list-style-type: none"> a. Clarification of regulations regarding IPM Act of BC. b. Facilitate information sharing between neighbouring jurisdictions (Alberta and USA).
Provincial government	<ol style="list-style-type: none"> 1. Determine/Quantify the impacts of invasive plants in economic and environmental terms. 2. Facilitate clarification of roles and responsibilities for invasive plant management; and assist in the communication and coordination of invasive plant related work once these have been defined. 3. Advise provincial government on reduced risk and conventional herbicide use policies.



Appendix 3. Invasive Plant Council of British Columbia. 2006 Annual General Meeting

Duncan Barnett chaired the Invasive Plant Council of British Columbia annual general meeting.

Financial Statements

Gail Wallin presented financial statements for the year ending December 31, 2005 and for the projected year-end to Dec. 31, 2006. She covered highlights of the Invasive Plant Council's first complete financial year of 2006.

Motion to accept the 2005 Financial Report: Moved by Bob Fowler, Seconded by David Polster. No objections, adopted by consensus.

Motion to accept the 2006 receipt of projected expenses: Moved by Bob Fowler, Seconded by Kristy Palmantier. No objections, adopted by consensus.

Amendment to the Constitution

Gail Wallin outlined a proposed amendment to the purpose of the Invasive Plant Council, with the text below to replace Section 2 of the constitution:

"The purposes of the Council are:

1. To educate the public and professionals about invasive plants and their risk to ecosystems through activities such as workshops, seminars and newsletters.
2. To fund research relating to invasive plants and make this available to the public.
3. To do all other things as are incidental or conducive to the attainment of the purposes of the Society."

Motion to accept the proposed revisions to the purpose of the Invasive Plant Council of BC as stated in the Constitution. Moved by David Polster, Seconded by Bob Fowler. No objections, adopted by consensus.

Committee Priorities

Duncan Barnett presented proposed committee priorities for 2007, which are subject to revision based on member input on the feedback forms. The priorities presented are as follows:

Communications and Awareness Committee

1. Review and enhance the Public Outreach Strategy.
2. Host a communications workshop.
3. Develop informational displays for use across BC (horticulture).
4. Update the IPCBC website.
5. Develop an effective media kit.

Regulation, Compliance and Enforcement Committee

1. Clarify the issues of land tenure and agency jurisdiction.
2. Develop first draft of a *General Legislative Guidebook* and distribute for peer review.

3. Produce a *Local Government Legislative Guidebook*.
4. Initiate development of additional Guidebooks.
5. Continue the legislative review process.

Technical and Operational Support Committee

1. Develop recommended criteria for listing invasive plants.
2. Increase awareness of and access to existing Best Management Practices, and develop more.
3. Recommend an approach for province wide database(s) of invasive plants.
4. Complete and encourage implementation of an Early Detection and Rapid Response Framework for BC.

Research and Development Committee

1. Develop in partnership a report on the economic impacts of specific invasive plants to BC.
2. Host a Pacific Northwest Bio-control Forum to increase awareness of current work and future priorities.
3. Partner with one or more post-secondary institutions on bio-control research.
4. Review and update the list of research priorities for BC.

Finance and Fund Development Committee

1. Complete Invasive Plant Trust Fund Report.
2. Work with key partners to identify funding needs for invasive plant management for BC.
3. Complete the Invasive Plant Council of BC Membership Fee Policy that addresses rates, benefits and other details.
4. Recruit funds for the Invasive Plant Trust Fund.
5. Diversify funding for Invasive Plant Council of BC.

Departing Directors

Michael Betts, Henry Benskin and Carla Fraser were given certificates of appreciation for their time as directors. Dawn Hanna and George Desjarlais were not present to receive their certificates.



2007 Board of Directors

Agriculture	Duncan Barnett
Conservation and wildlife	Ernie Sellentin
Federal government	Brian Reader, Jamie Richardson
First Nations	Kristy Palmantier, James Manuel
Forestry	Peter Mohammed
Local government	David Turner, To Be Confirmed
Mining	David Polster
Provincial government	David Borth, David Ralph
Recreation and tourism	Peter Goetz
Regional weed committees	Denise McLean, Lisa Scott
Transportation	Barry Gibbs
Utilities	Tom Wells
Horticulture	Rod Nataros

Other Business

No further business was raised by members, and Duncan adjourned the annual general meeting at 1:33 pm.