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Chair

Mr. Mark Warawa

Standing Committee on Environment and Sustainable Development

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• (1140)

[English]

The Chair (Mr. Mark Warawa (Langley, CPC)): I call the meeting to order. We do have quorum. Time is short. We are going until 12 o'clock, and then we'll go into the second half. Our apologies that some of your time was taken up with the vote in the House.

Assuming there are no additional presentations from either of the three presenters, we'll begin our questioning with the first round of seven minutes.

Ms. Rempel.

Ms. Michelle Rempel (Calgary Centre-North, CPC): Good morning, and thank you for coming here again today.

Based on some of the presentations that we had at our last meeting, I'd like to direct some questions to Mr. Wong from Parks Canada. You spoke in your presentation about the use of volunteers in combatting invasive species. Could you perhaps put some more information out there on how national parks benefit from the assistance of volunteers?

Mr. Mike Wong (Executive Director, Ecological Integrity Branch, Parks Canada Agency): Thank you very much for the question.

Looking at the issues such as the invasive alien species, which is a very good example of the challenges of managing an area such as a national park, given the large distribution and the potential impact of these invasive alien species, it's very difficult for us to manage it without the support of the neighbouring community. This is really where the seeds or the eggs of these invasive species will be coming in.

We have extremely good relationships with the neighbouring communities. The one example I had in my presentation was the control and removal of scotch broom in the Garry oak ecosystem in the Gulf Islands National Park Reserve. Given the large distribution of this weed, there has been a huge engagement of the municipalities in organizing events such as what they call the "broom sweep" in order to remove these species from national parks and national historic sites. As one example of the magnitude of the issue, in one weekend last year in one of these broom sweeps, they removed over eight tonnes of scotch broom.

If you look at the challenges in terms of managing that as an individual organization, it is quite difficult without the support of volunteers.

Ms. Michelle Rempel: You have spoken about the importance of volunteers here, so perhaps you could describe the recruitment process that Parks Canada uses to attract volunteers.

Mr. Mike Wong: There are several programs, and they vary by individual parks. For example, we do have in many of our national park locations volunteer organizations called friends of national parks. It's through these organizations that we organize different events within the parks, such as some interpretation programs in which they engage the local communities in bird watching, bird counts, as well as some citizen science programs looking at the monitoring within the parks, as well as active management such as weed removal. So the friends of the parks are key organizations in helping their local parks. As well, we look at third-party local organizations, such as naturalist clubs, that can also contribute to joint efforts.

Ms. Michelle Rempel: That's great.

You gave some examples of some events that were put on, for example, the scotch broom event. Could you give some other examples of Parks Canada organizing specific events to attract volunteers to deal with invasive species?

Mr. Mike Wong: Another example would be one in Kejimikujik National Park, a national historic site in Nova Scotia. One of the invasive species identified in my colleague's presentation was the green crab, which is a European species that has been found in the waters in the Atlantic. The park basically organizes events during several weekends to capture these crabs and remove them from the ecosystem, because they do have a significant impact on the local species, including local native crabs as well as lobsters and other valuable species.

Ms. Michelle Rempel: Have you had any challenges related to attracting volunteers to parks that are perhaps farther away from inhabited areas?

Mr. Mike Wong: You're absolutely right.

For many of our northern parks, for example, it is more challenging to bring in the volunteers. Yet our northern parks are also a little further away from the invasive alien species that are generally found in our southern parks. In some ways, the issues in the northern parks are slightly less severe than what we're facing in the southern parks.

Ms. Michelle Rempel: What are some of the parks that have had the most success with regard to volunteer engagement?

Mr. Mike Wong: Certainly, the parks in Nova Scotia, as I mentioned, Kejimikujik and Cape Breton Highlands National Park. As well, one of the true successes is with our coastal British Columbia field unit, Gulf Islands National Park. In fact, the recovery of the Garry oak ecosystem was recognized as one of the key programs that led to World Wildlife Fund International awarding its Gift to the Earth award to us last year.

• (1145)

The Chair: Thank you. I'm going to have to end that.

Thank you, Ms. Rempel.

I'm using my discretion. We'll be giving six minutes so that everybody has an equal opportunity.

[Translation]

Ms. St-Denis, it's your turn.

Ms. Lise St-Denis (Saint-Maurice—Champlain, NDP): Thank you.

My questions are a little more general.

Should the federal government consider creating a specific inspection agency for controlling invasive alien species?

[English]

Mr. Robert McLean (Executive Director, Habitat and Ecosystem Conservation, Canadian Wildlife Service, Department of the Environment): The approach that we have right now, as I mentioned on Tuesday, is a useful approach to the issue. The monitoring I'll come to in the second half of my response.

In the first part of my response, the focused approach on, for example, plants and plant pests, that we have through three departments or agencies—the Canadian Food Inspection Agency, within Agriculture and Agri-food Canada, Natural Resources Canada, and the Canadian Forest Service—allows that focused effort around species that are very similar. For example, there is expertise around aquatic species in Fisheries and Oceans. These are very specialized areas of expertise and it's good to have them in the particular agencies.

Monitoring is a great challenge that speaks to the early detection and rapid response. Monitoring is a responsibility that falls not only to the federal government but to provincial governments as well. It's an ambitious task to monitor invasive species and biodiversity. If the federal government is focusing its efforts on monitoring, it would be best to focus in those areas that are near ports of entry. The federal role that I mentioned on international trading and international travel...those major points of entry are the places where one could anticipate we'd see the first evidence of new invaders to the country. If the federal government were prioritizing, those would be the areas that come to mind.

With respect to monitoring, it's a much broader task than one that falls to the federal government alone. I mentioned provinces and territories, but we fund volunteer work where Canadians, citizen scientists, are out there in ecosystems and habitats checking for the presence of new invaders.

[Translation]

Ms. Lise St-Denis: You're saying that this comes under provincial and federal jurisdiction at the same time. But what bilateral actions is Canada taking to fight these invasive species?

[English]

Mr. Robert McLean: On Tuesday, I mentioned the different federal-provincial partnerships that we've established. There's a federal-provincial partnership around aquatics species and also around plant and plant pests, as well as around forest pests. It's those federal-provincial partnerships that really provide an effective mechanism to sort out what the collective priorities are first.

The next level of discussion is, what are the federal government agencies best placed to deliver and what are the appropriate roles for provincial governments? The provinces tend to focus a little bit more on the management side. The authorities for international trade and international travel lying with the federal government should be the priority, whereas the provinces and territories have some of the levers, capacity, and people to actually undertake the management side of the issue of invasive alien species.

I don't know if my colleague from Natural Resources Canada might wish to add a few additional remarks around the federal-provincial roles on forest pests.

Mr. Ken Farr (Manager, Canadian Forest Service, Science Policy Relations, Science Policy Division, Department of Natural Resources): Thank you.

With respect to Natural Resources Canada, the Canadian Forest Service has been a partner in the national forest pest strategy for some six years, under the aegis of the Canadian Council of Forest Ministers. It's essentially a means of communication between the federal government and the provinces where there are shared issues with invasive species. For example, there are pathogens like sudden oak death, which have a potential to arrive in different areas of the country. The strategy enables us to share the risk analyses, the priorities, and the potential for forest pests to become serious problems for varying jurisdictions. I believe that partnering with provincial jurisdictions is one of the most effective means of addressing invasive alien species at a national level.

• (1150)

[Translation]

Ms. Lise St-Denis: You spoke about invasive aquatic species. Our mandate covers invasive terrestrial species.

In fighting invasive species, do we necessarily have to differentiate between invasive terrestrial species and invasive species that are rampant in aquatic areas?

[English]

Mr. Robert McLean: Not necessarily. We see instances of the introduction of invasive species where the pathway is bringing species invasive to both terrestrial and aquatic ecosystems. If it's a shared pathway it makes sense. There are other instances, such as with ballast water, that are uniquely aquatic. It depends upon the pathway of introduction whether the partnership makes sense or not.

The Chair: Thank you.

[Translation]

Thank you, Ms. St-Denis.

[English]

Our next person on the speaking order is Mr. Toet.

Mr. Lawrence Toet (Elmwood—Transcona, CPC): Thank you.

My question relates to a document that I believe you provided to us, Mr. McLean. It's called "An Invasive Alien Species Strategy for Canada". You provided it to the full committee. I just want to clarify that before I start asking questions on a document that everybody might not have.

You gave some definitions. You make a distinction between "invasive species" and "invasive alien species". Alien species you define as:

...plants, animals (including fish), and micro-organisms introduced by human action outside their natural past or present distribution. They are also known as exotics, or specified as being foreign or non-native. Introductions of alien species may be deliberate or accidental, and may be beneficial, as in the examples of corn, wheat, and domestic livestock, or damaging, such as leafy spurge, zebra mussels and wild boars.

Then you go on to explain:

Invasive alien species are those harmful alien species whose introduction or spread threatens the environment, the economy, or society, including human health. Alien bacteria, viruses, and fungi, and aquatic and terrestrial plants, mammals, birds, reptiles, amphibians, fish, and invertebrates (including insects and molluscs) can all become invaders.

I would like clarification on that statement. You're saying that alien species are not necessarily harmful. Invasive alien species are those that harm the environment, the economy, or society. Would that be correct?

Mr. Robert McLean: Yes.

Mr. Lawrence Toet: I'd like to go back to the building blocks of the strategy. I would imagine that this strategy was brought forward, at least partially, as a result of Canada's international obligations.

Mr. Robert McLean: That's correct. It flowed from the Convention on Biological Diversity. Canada adopted a Canadian biodiversity strategy in 1996. Invasive alien species was one of the priority areas identified by federal-provincial ministers in 2000, and that led to the adoption of the strategy in 2004.

Mr. Lawrence Toet: Thank you.

Even though it's on an international front, is this a Canadian strategy?

Mr. Robert McLean: Yes, it is.

Mr. Lawrence Toet: We have freedom within the context of those agreements to bring forward our strategy as we see fit.

Mr. Robert McLean: Absolutely.

Mr. Lawrence Toet: I want to talk a little bit about strategies adopted by other countries, for example, the United States, New Zealand, and Australia. I'm assuming their strategies are not identical. Could you give us an idea of some of the differences there?

Mr. Robert McLean: Globally, there is quite a bit of commonality with respect to the strategic thrust of what countries are attempting to do, the focus on pathways and prevention. The United States definitely has that as a priority. New Zealand, especially, is perhaps the most active country with respect to closing those pathways of introduction. Of course, Australia has a long history of some fairly invasive species, so it too focuses on the prevention aspect.

All three of those countries have learned the same lesson we've learned in Canada; that is, once these species become established, it's essentially impossible to eradicate them. It is better to stop them from getting here in the first instance. There is actually a fair bit of commonality around what we are doing.

The second comment I would make is that we have met with the invasive species council in the United States. It is a council of federal agencies. We do talk to make sure we are taking a consistent approach. North America needs a North American perimeter, if you will, because species can get into United States ecosystems and move into Canada. Conversely, they can get into Canadian ecosystems and move into the United States. If we are on the same page with respect to risk assessment, priority species, and priority pathways, we can then collectively be more effective.

• (1155)

Mr. Lawrence Toet: Right, so being signatories to the same international agreements relating to invasive species, is there a collaboration between the countries?

Mr. Robert McLean: Yes.

Mr. Lawrence Toet: Can you outline a little bit how that might work?

Mr. Robert McLean: One example would be the North American Plant Protection Organization, which I believe my colleague mentioned on Tuesday. This organization is working together with respect to the risk assessment. It is important, if we are doing a risk assessment in Canada on a particular species and the United States is looking at the species, that we arrive at a similar or the same conclusion. That North American organization provides an opportunity to arrive at those shared decisions.

I know, although it's off topic for this committee, that on the aquatics front the exact same thing is happening between Canadian and American officials.

Mr. Lawrence Toet: I want to ask you a bit of a hypothetical question at this point. If we modified our approach to invasive species to be more like another country, such as the United States, New Zealand, or Australia, could it still be done in such a way that we would continue to meet our international obligations? I'm assuming we are meeting those international obligations today. Is there room for modification within that?

The Chair: You have 15 seconds.

Mr. Robert McLean: I am going to venture out and say yes. It would depend on the modification, but I actually don't see impediments to adjusting what we do now. We have that flexibility.

The Chair: Okay. Thank you very much.

The last in this round would be Mr. Casey. You have six minutes.

Mr. Sean Casey (Charlottetown, Lib.): Thank you, Mr. Chairman.

Members of the panel, I want you to know that I'm filling in for Kirsty Duncan. The questions you would get from Dr. Duncan would be much more thought out, better researched, and better put together than anything I might ask you. I also didn't have the benefit of your presentation. Please bear with me; it will be over in six minutes or less.

I'm from Prince Edward Island, so my question to you is this. Specifically, what invasive alien species are of concern in my little corner of the world?

Mr. Robert McLean: The one that comes to mind right away, and I can't find it in my notes, is a potato cyst or potato nematode, I believe, that actually resulted in.... It was five or six years ago, so I need colleagues from the Canadian Food Inspection Agency who would have been on that particular file.

Mr. Sean Casey: It was a potato wart.

Mr. Robert McLean: That's it. It was the potato wart, as you would know only too well, and I'm sure you know better than I that it closed export markets to the United States. That's one of the big risks around invasives. It's a good example—or a bad example.

Mr. Sean Casey: My recollection of that, though, is that it was effectively dealt with. It did take some time.

Are there any others on the horizon at the present time?

Mr. Robert McLean: I would beg your indulgence in getting back to you with a list of species that could be invasive to P.E.I.

Are you thinking of established ones or potential new ones?

Mr. Sean Casey: I would say established. You have a strategy to deal with invasive alien species. My question, from the perspective of Prince Edward Island, is what's relevant to me.

We also are very proud of our national park in Prince Edward Island. Is there anything from the park perspective unique to Prince Edward Island that I should know about?

• (1200)

Mr. Mike Wong: Similar to my colleague's response, I will have to obtain that information from the park itself and get back to the committee on that.

Mr. Sean Casey: Okay.

Thank you, gentlemen.

I'll try to do my part to keep you on schedule. Mr. Chairman, that's all I have.

The Chair: Thank you.

That will end this round of witnesses. We are going to suspend for a few minutes to set up the video conferencing and allow you to have some lunch. I want to thank the witnesses for returning today.

• (1200)

_____ (Pause) _____

• (1205)

The Chair: We'll call the meeting back to order.

Welcome to our guests. We have Mr. Peter MacLeod and Mr. Dennis Prouse. They are with CropLife.

By video conference, we have Mr. Christopher Majka.

Did I pronounce that correctly?

Mr. Christopher Majka (Research Associate, Nova Scotia Museum, As an Individual): It's pronounced "mica", just like the mineral.

The Chair: Thank you so much.

Welcome, everyone.

We will begin with a presentation from CropLife and then from Mr. Majka.

Go ahead, Mr. MacLeod. You have up to ten minutes.

Mr. Peter MacLeod (Vice-President, Crop Protection Chemistry, CropLife Canada): Good afternoon, and thank you for the invitation to speak here today.

As the honourable chair mentioned, my name is Peter MacLeod. I am the vice-president of the chemistry division at CropLife Canada.

CropLife Canada is a trade association that represents the developers, manufacturers, and distributors of plant science technologies, including pest control products.

With me today is Dennis Prouse, CropLife's vice-president of government affairs.

CropLife Canada's primary focus is upon the agriculture sector, but our member companies also develop controls for non-agricultural uses and are keenly aware of the importance of having tools in place to control invasive species.

The potential for invasive species to devastate the Canadian economy is significant. The agriculture and forestry sectors alone were recently estimated to be worth \$100 billion a year and are particularly vulnerable to the threat from invasive species. Weeds, insects, and disease are constant threats to Canadian farmers. Weeds compete with nutrients for water and space, while insects and disease damage crops and can reduce yields and quality significantly, if they are not controlled.

But invasive species, as this committee will know, are an even more difficult than average threat to control. As an industry, we encourage farmers to use integrated pest management practices, practices that can make a big difference in the control of invasive species.

Integrated pest management, for those who may not be familiar with the term, is a holistic approach to managing pests. The pesticides our member companies develop and distribute are highly sophisticated tools that play a role in IPM. In fact, today's pesticides can be applied at extremely low rates—for example, as low as a few grams per acre. Also, they are designed to target very specific pests and to break down very quickly into benign substances.

Industry routinely invests up to 11% of sales in research and development to ensure that farmers have access to a broad range of safe and effective tools. But we do more than that. As an industry, for over 20 years we have invested in a full life-cycle stewardship practice that make us leaders in environmental and responsible practices.

Each individual pesticide takes decades of research and testing and costs approximately \$250 million in R and D before the first sale occurs. The resulting benefits of those investments are significant. In Canada alone, the use of pesticides and plant biotechnology increases on-farm profit by increasing both the quality and quantity of field, fruit, and vegetable crops, to the tune of \$8 billion annually. This in turn strengthens many other sectors of the Canadian economy, including manufacturing, wholesale, and retail trade, and creates an additional 97,000 full-time Canadian jobs.

Ultimately, the benefits of our technologies also increase the amount of tax generated for federal, provincial, and municipal coffers. An additional \$385 million in tax revenue that our industry generates in turn helps pay for such important things as health care, education, and infrastructure.

The other place where our technology makes an undeniable contribution to the lives of Canadians is at the checkout counter of local grocery stores, where, thanks to the safe and effective control of harmful pests, our technology saves Canadian families 58% on their weekly grocery bill.

That's the economic side of the equation, which in itself explains why the control of invasive species is so important. Simply put, too much is at stake not to take the threat of invasive species very seriously.

Secondly, our industry shares the public concern about the loss of natural habitat. As an industry, one of our greatest contributions to society is that we make it possible for farmers to grow more food on less land. In Canada, this has not only enabled the natural habitat to remain intact but has also meant that marginal or at-risk lands that were once upon a time farmed can be turned back into wetlands and natural wilderness.

As an industry, our hope in appearing before you today is that we can be part of the dialogue on how to manage invasive species in Canada. Our technologies are important tools in this fight, but we recognize that there are those who have questions and concerns about our technology.

Pesticides are regulated by Health Canada through the Pest Management Regulatory Agency; yet despite the federal government's stringent regulatory control, our industry's products have been subject to a variety of unjustifiable restrictions and bans from various provincial and municipal governments.

We believe the misconceptions about the safety of our products and the adequacy of PMRA's regulatory controls pose a challenge for the development of an effective strategy for managing invasive pests. This is an especially frustrating possibility when one knows that Canada's pesticide registration process is one of the most scientifically rigorous in the world.

• (1210)

Pesticides are not the only solution in the fight against invasive species, but they're certainly one tool in the toolbox.

In conclusion, the request of this committee is that the national threat of invasive species be addressed in a cooperative manner that draws on the expertise of our industry, of other industries, academia, and various invasive species organizations such as those that have appeared before you. Cooperation includes all three levels of government. The role that pesticides can play in helping to control invasive species must be recognized and further explored. Collaborative research and development must not only be encouraged but enabled.

In the face of clear economic and environmental threats, the regulatory system must be nimble and responsive so that new tools can come to market as quickly as can responsibly be done. Building on this, the cost of the regulatory process bears consideration, at least from our perspective. Given the already high cost of research and development—more than a quarter of a million dollars per new product—and the very low potential sales volume for a product developed specifically for an invasive species, the potential to recoup the investment must not be further diminished by additional regulatory burdens.

Finally, if we are to effectively manage the danger posed by invasive species, the Government of Canada must defend its own regulatory system. The Pest Management Regulatory Agency does excellent work. It's a science-based regulatory system, it has a sound track record of keeping Canadians safe, and its work is well respected internationally, with many other countries routinely observing and benefiting from the sound work done by the PMRA.

Canadians, however, know very little about the regulation of pesticides. They certainly know about the regulatory role of Transport Canada and its oversight of automobile safety. They know about the food safety regulators who make our food supply one of the safest in the world. But perhaps because pesticides are controversial, we do not hear the Government of Canada publicly outlining the strengths and benefits of the regulatory system. This is unfortunate. In order to give Canadians confidence in the regulation of the products that will inevitably be needed in battling invasive species, this work needs to begin in earnest.

Thank you for your time today. CropLife and its member companies look forward to being part of the solution for the invasive species problem.

I'd be happy to answer any questions.

•(1215)

The Chair: Thank you, Mr. MacLeod.

Our next presenter is Mr. Majka.

Mr. Christopher Majka: Thank you very much.

Good morning. It's a great pleasure for me to appear before this committee. I'm Chris Majka, and I'm here as a researcher, investigating the ecology, biodiversity, and taxonomy of invertebrates, particularly beetles, in Atlantic Canada and Maine.

I'm an ecologist, a research associate at the Nova Scotia Museum, and the administrator of the Thousand Eyes project, a public participation climate change monitoring project. I should emphasize that I'm not officially representing any organization, but I'm speaking based on my research expertise in this area.

To start off, I'll make a quick distinction. Alien species are those that are introduced from elsewhere, in other words, non-native species. Invasive species are those that appear to be dramatically increasing their populations and range. They are beyond normal biological control, frequently at the expense of native species.

It's important to bear in mind that not all alien species are invasive. Indeed, only a very small fraction are. And not all invasive species are alien—for example, the mountain pine beetle and spruce budworm are native invasive species.

The vast majority of introduced species either die out very quickly because conditions for their survival are unsuitable, or they blend into the biological woodwork. For example, in a recent book on introduced beetles in eastern Canada, we identified 510 species. Even employing a broad distinction of invasive, only 5% of these beetles could be considered invasive and only 1% or 2% significant pests.

Here are a couple of quick illustrations of bona fide invasives—I hope the members of the committee have the figures I sent beforehand. The Asian multi-spotted lady beetle was introduced in Louisiana in 1978 for bio-control of aphids. By 1992, it was found in New Brunswick; 1994, in Nova Scotia; and 1998, in Prince Edward Island. Figure 1 in your package illustrates a characteristic feature of invasive species, which is very rapid dispersal throughout a large geographical area. By 2010, it was the most abundant lady beetle in many areas of the Maritimes and was found in virtually every

portion of North America, save for Labrador, Saskatchewan, and Wyoming.

Several native lady beetles have experienced significant declines as a result. The parenthesis lady beetle has almost completely disappeared in the maritime provinces and three others. The two-spotted lady beetle, the transverse lady beetle and the nine-spotted lady beetle have become extinct in Maine, and the former two are in serious decline in the Maritimes. They are all important predators of aphids and similar insects. What will the effect of their disappearance be in the many habitats they occupy?

Now, looking at figure 2, the lily leaf beetle was discovered in North America—in Montreal, in 1943. It feeds exclusively on tiger lilies and fritillaria, a related plant. For almost 40 years, the beetle remained confined to the Island of Montreal. Then suddenly it began to rapidly expand its range, appearing in Ottawa, in 1981; Halifax, in 1992; Toronto, in 1993; and Portage la Prairie, in 1999. In the United States, it was first found in Cambridge, Massachusetts, in 1992, and it has since spread throughout Maine, New Hampshire, Rhode Island, Connecticut, and northern Vermont.

Figure 2 illustrates the dispersal of this species in the maritime provinces and adjacent areas of Maine. Again, we see a very rapid dispersal throughout a large geographical area, which is characteristic of invasive species. The lily leaf beetle has had a dramatic impact on the horticultural sector, decimating lilies and leading many gardeners and growers to simply give up growing the plants. Moreover, in New Brunswick, we have now found it on the native Canada lily, a plant already considered rare and endangered in several provinces and states.

In light of these examples, how does climate change factor into the epidemiology of invasive species? The large majority of alien species, both invasive and not, are ecological opportunists, thriving in disturbed habitats. This is in contrast to many native species that are found in indigenous, undisturbed habitats. The effects of climate change are to increasingly disturb ecological equilibria in such a way as to favour ecological opportunists. Contemporary civilization has created large areas of disturbed habitat, such as lawns, agricultural fields, pastures, golf courses, forest plantations, highway rights-of-way, and vacant lots.

This proportion of our landscape has been growing rapidly. For example, in Nova Scotia, after the Second World War, 40% of forested land was considered in old growth. Now it is less than 1%, so there are more and more areas suitable for faunas of disturbed environments. Climate change may further this.

Climatologists predict that the broad pattern of climate change will be to accentuate current patterns. Dry areas will experience more drought, wet areas more precipitation, heat waves will be more severe, cold snaps will be colder, forest fires more frequent, and extreme weather events will occur more often. Such circumstances have a disproportionate impact on native species, adapted, as many of them are, to the present environmental conditions.

• (1220)

Thus, we can expect that there will be more opportunities for invasive species to establish themselves, more habitat for currently established invasive species to exploit, and existing alien species that are not invasive could become so as a result of changing environmental conditions, allowing them to break free of ecological restraints.

So what could the results be? Let's look at one example from research done by my fellow entomologists, Owen Olfert and Ross Weiss, with Agriculture and Agri-Food Canada in Saskatoon. Figure 3 in your bundle is adapted from their study of three important alien invasive beetles: the cereal leaf beetle, a pest of wheat, oats, and barley; the cabbage seedpod weevil, a pest of plants in the mustard family, including canola, mustard, cabbage, and broccoli; and the bronzed or rape blossom beetle, another serious pest of mustard plants, particularly canola.

Using CLIMEX modelling software, which integrates information on the ecological tolerances of pests, such as their responses to heat, light, moisture, etc., as well as climate data, CLIMEX generates an index that shows how favourable or unfavourable areas of the country could become if there are changes in temperature and moisture, as is expected under climate change.

Figure 3 shows the results of a temperature increase of 3°C, considered an intermediate value between low and high greenhouse gas emission scenarios for Canada by the end of the century. The results are striking. Climate change would make suitable, favourable, or very favourable a much larger proportion of Canada's land area for all three of these invasive species. It is evident that the economic impact of this would be substantial. And this may already be happening.

I will go back to the lily leaf beetle for a second. Although we don't know for certain why this species remained confined to Montreal for almost 40 years, this pattern of sudden release from ecological constraints and rapid dispersal and colonization is consistent with the effects of climate change on populations.

So what needs to be done? There are several priority areas.

One, we need to devote significantly greater resources to conducting biodiversity research. We need to determine which species are present, which are not, and which could be threatened by invasives. Lacking a good bio-inventory, we're groping in the dark. Even if we detect alien species, we can't determine if they are new or if they have been present, undetected for decades or centuries.

Two, to conduct bio-inventory work we need significantly greater funding for developing and maintaining taxonomic resources: museums, reference collections, taxonomic experts, and publications. Financial resources for all of these have been in steep decline.

The National Research Council of Canada's monograph publishing program was phased out in 2010 for lack of funding.

Three, we need to monitor for new alien species and for changes in the distribution of established alien species that might be influenced by climate change. And this can't be confined to already identified invasives. We have to look widely, since, to quote the former American Secretary of Defense, there are "unknown unknowns" out there.

Four, in order to employ sophisticated modelling programs such as CLIMEX, we need to have detailed eco-physiological information about potential invasives. Otherwise, accurate data to plug into the models is lacking. We should devote more, not fewer, resources to Environment Canada to conduct such research.

And five, as far as I'm aware, climate change has not been formally integrated into federal risk assessment and management processes. A one-day topic on this subject was organized by the Policy Research Initiative in November 2008. Participants identified a number of challenges that needed to be addressed in order to integrate climate change into risk assessment and management. These include developing accurate models of climate change, developing an institutional awareness of climate change, developing expertise—biological, climatic, and technical—targeting funds for undertaking these processes, integrating climate change awareness into policy development in other social and economic sectors, and fostering long-term decision-making. These are all important governmental and institutional objectives, and most remain addressed.

Finally, as I hope these few examples illustrate, climate change represents a ticking time bomb in relation to invasive species—and much else. The Canada we live in has taken 20,000 years, since the end of the last glaciation, to reach an ecological equilibrium. We've already significantly disturbed that equilibrium. Once climate, the bedrock of the ecological world, begins to change, all bets are off as to where this may lead. It's important to develop measures such as those I have outlined to backstop that risk, but it's even more critical that we take all possible measures to minimize climate change at all. The costs of not taking action will certainly greatly exceed those of doing so.

Thanks very much.

• (1225)

The Chair: Mr. Majka, your timing was just about bang on. Thank you so much.

Under point five you ended by saying "most remain addressed" and then in your briefing material notes it says "most remain unaddressed". I just want to clarify that.

Mr. Christopher Majka: It should say "unaddressed", yes.

The Chair: Thank you for that clarification.

Mr. Woodworth, you have the first round at seven minutes.

Mr. Stephen Woodworth (Kitchener Centre, CPC): Thank you very much.

Mr. Majka, thank you for your efforts to appear before us today. I'm sorry I don't have much time to get to know you or to have a conversation with you, but you understand I have seven minutes and have to be fairly to the point. I'll proceed in that spirit. I hope we'll meet again and have another chance to chat.

Mr. Christopher Majka: I look forward to it.

Mr. Stephen Woodworth: Thank you.

I want to ask you first about your view. Do you agree with me that independent scientific evidence is highly important in the development of sound policy?

Mr. Christopher Majka: Correct.

Mr. Stephen Woodworth: And the advantage of independent opinion over an opinion from anyone with a partisan interest is that you have to be careful about relying on an opinion from an expert who has an active partisan interest. Do you agree with that?

Mr. Christopher Majka: Yes, it's important that policy be developed from science and that science not be an arm of policy.

Mr. Stephen Woodworth: That's right. You would understand someone in my position who is trying to develop policy if I have to be very cautious about evidence when it comes from a partisan source. Do you understand that?

Mr. Christopher Majka: Yes, absolutely.

Mr. Stephen Woodworth: Do you consider yourself to be an independent and non-partisan expert?

Mr. Christopher Majka: Yes. I'm not paid by any forestry, agricultural, or other interest. As I mentioned, my background is as an ecologist and as a research associate of a museum. So my interests are really ecological—

Mr. Stephen Woodworth: I don't mean to say you're on anyone's pay, but you consider you have a non-partisan approach to issues?

Mr. Christopher Majka: Yes. Absolutely.

Mr. Stephen Woodworth: I will read to you this statement:

The present Canadian government's leadercentric, hyperpartisan, wedge politics, zero sum, ignorance-trumps-knowledge approach to government becomes ever more calamitous.

Would you say that has the ring of scientific non-partisanship?

Mr. Christopher Majka: I'm not speaking about science in that context.

Mr. Stephen Woodworth: Right, but let's just establish, first of all, that you do remember and recognize the statement I just read as being your statement. Correct?

Mr. Christopher Majka: Yes. I've been very critical from my standpoint as an ecologist of federal government policy, in particular in relation to climate change and also biodiversity.

Mr. Stephen Woodworth: If I were to read to you the statement, "Stephen Harper's attempts to foil this legislation"—referring to the climate change bill of the NDP—"appear to be directed by his desire

to have Canadian environmental policy as bereft of substantive content as possible in going into the Copenhagen negotiations", would you say that statement has a ring of scientific non-partisanship?

Mr. Christopher Majka: I'm speaking there in the context of political policy, and from my impartial standpoint as an ecologist, I believe that to be the case.

Mr. Stephen Woodworth: You're trying to tell me that the statement I just recited to you, you consider to be an impartial statement? Is that what you're saying?

Mr. Christopher Majka: It's certainly partial in the sense that I take a strong position on what the policy is.

Mr. Stephen Woodworth: You would understand if I considered you to not be an impartial, independent, non-partisan witness, wouldn't you, based on those two statements alone?

Mr. Christopher Majka: It's up to you what you consider me to be. I think the important point, and the important point in all science, is to evaluate all things according to their validity, simply on the basis of the facts.

• (1230)

Mr. Stephen Woodworth: Unfortunately, we have to be careful in questioning people who come before us with facts to make sure of the validity of what they're saying.

Are you familiar with Project Democracy?

Mr. Christopher Majka: Yes, absolutely. I'm involved in that.

Mr. Stephen Woodworth: That's right. And I understand the heart of Project Democracy was a statistical engine to provide riding-specific information on which opposition candidate would be best positioned to defeat the Conservatives. Do you remember that?

Mr. Christopher Majka: Yes, indeed.

Mr. Stephen Woodworth: In fact, you were engaged in the last election in this Project Democracy in attempting to defeat Conservative candidates, were you not?

Mr. Christopher Majka: The main objective of Project Democracy is that we're very strongly directed at electoral and political reform, and we are particularly interested in the introduction of proportional representation. That's our first and foremost focus.

How does that relate to science, however?

Mr. Stephen Woodworth: If I were to suggest to you that on April 11, 2011, you wrote that the tools provided by Project Democracy were precisely what was required for electors to determine which candidate to support in order to coalesce opposition support, wouldn't you agree with me that is suggestive of an attempt to work for the opposition and against the Conservatives? You wouldn't deny that, would you?

Mr. Christopher Majka: I would say that the first and foremost objective of Project Democracy is to look at the equitable distribution of political power according to an understanding of proportional representation. It certainly takes a partisan position.

Mr. Stephen Woodworth: With respect, I'm going to go on the basis of the words you actually wrote on April 11, 2011, at 4:30 p. m., which seemed to be directed at coalescing support behind opposition candidates to defeat Conservative candidates, and ask you at least if you understand why someone like me, as well as many other Canadians who support the government, might want to be very cautious before accepting your evidence about anything.

The Chair: Ms. Leslie, on a point of order.

Ms. Megan Leslie (Halifax, NDP): I understand the point of trying to undermine the credibility of any witness. I think it shows a great attention to detail for MPs to actually look into the backgrounds of witnesses, but at some point, I think the questioning should turn to the scientific issue at hand and not what Mr. Majka does in his spare time.

Mr. Stephen Woodworth: May I respond to that point of order, Mr. Chair?

The Chair: You may, Mr. Woodworth.

Mr. Stephen Woodworth: The whole point of my examination thus far has been to probe whether or not this witness would reliably and honestly disclose his partisanship to us, and I must confess, I have found him to be somewhat less than forthcoming about that. Consequently, I would suggest that I certainly am not prepared to accept his evidence on anything, and I would highly recommend that no one listening should accept his evidence on scientific issues when he hasn't been completely forthcoming about his particular bias and partisanship.

I don't believe my questioning is inappropriate, and those are my reasons.

The Chair: I'd encourage all members to keep their comments and their questions germane to the topic.

Mr. Woodworth, your time is up.

Ms. Liu, it's now your time. You have seven minutes.

Ms. Laurin Liu (Rivière-des-Mille-Îles, NDP): Thank you, Mr. Chair.

I'd like to thank all the witnesses for being here.

I thank Mr. Majka for his very informative presentation on Project Democracy, but let's get back to talking about science.

I'd like to go back to talking about the spruce longhorn beetle, which is a topic that has been talked about in this committee. I was wondering if you could comment on how this species is a potentially invasive one, and also comment from the perspective of how climate change might affect it.

Mr. Christopher Majka: Yes, it's a very interesting subject. The brown spruce longhorn beetle is a species I'm particularly familiar with, both of us—as it were—being located here in Nova Scotia. It affords a particularly good opportunity to examine several important points that arise from my opening remarks.

The first is that we should have clear scientific evidence that the brown spruce longhorn beetle—I'll abbreviate it as the BSLB—is an invasive species before we jump to that conclusion and launch programs of quarantine, eradication, control, and various initiatives that restrict the movement of wood, all of which have been

undertaken with regard to the BSLB. In order to obtain that kind of information, we need to undertake research that will shed light on whether this is so.

In the case of the BSLB, I must regrettably say that we do not have this evidence, and it's first and foremost because the Canadian Food Inspection Agency has not commissioned studies to determine this. As a consequence, 12 years have elapsed since the BSLB appeared on the Canadian radar, and substantial sums have been spent, chiefly by the federal government, on a variety of programs that, in my estimation, are almost certainly unnecessary. In the smallest possible nutshell, the BSLB is without doubt an alien species, but as I pointed out in my introductory remarks, not all alien species are invasive ones. Only a very small proportion of them are.

It's been very well studied in Europe, where it's not invasive, and there are many scientific reasons to believe that it's behaving no differently in Nova Scotia and in Canada than it is throughout its European range. There, they feed on dying trees that have reached a certain stage of ill health and form part of the natural processes of decay in the forest.

In Nova Scotia, they feed almost exclusively on red spruce, and I'd say two things. Scientists agree on two important points. One is that brown spruce longhorn beetles do not attack healthy trees, and two is that when a tree becomes of sufficiently ill health, the brown spruce longhorn beetles will feed on it.

So the essential question is whether that level of health is any different from that of many native longhorn beetles already common in our forests. If so, then the BSLB could be considered an invasive pest. If not, it simply joins an already existing suite of insects that, from an ecological perspective, do exactly the same thing that the BSLB does: help the natural processes of decayed composition and nutrient recycling in forest ecosystems.

Why don't we know the answer to this question? Well, because the CFIA has never asked it, and it has never commissioned the relatively simple and inexpensive scientific trials required to determine it. In my view, the decision was made at the outset by the CFIA to simply regard the BSLB as an invasive species, and there's been no attempt to actually provide evidence that this is so. A first and central principle of risk assessment and risk management is the determination of whether a species is actually a risk. Otherwise we fail to distinguish between bona fide invasive species and introduce species that are not.

There's another dimension to this issue that bears precisely on the topic of climate change. Since the 1960s, forest biologists have been documenting the declining health and vigour of red spruce in the United States. In some stands in northern New England, 30% to 60% of red spruce have experienced mortality, and there's been a lack of vigour in the surviving trees. There are similar concerns in the maritime provinces. Potential causes of this decline that have been examined include climate change; air pollution, particularly acid rain; insects; and disease. However, in one very important study in New York and western New England, investigators determined that climatic factors—that is to say, unusually warm summers, followed by unusual cold snaps in the winter—are important factors responsible for the decline.

Such increasingly pronounced fluctuations in the weather are precisely what is predicted to occur in the course of climate change. Consequently, it would be reasonable to expect that as climate change proceeds, red spruce in eastern Canada will be affected by such weather fluctuations, will suffer corresponding declines in health and vigour, and consequently that more suitable habitat will be available for the BSLB and many other native species. If this comes to pass, we may see a significant deterioration of red spruce in the coming decades, one not caused by invasive species but by climate change itself. In other words, the BSLB may be a symptom of the problem and not its cause.

So that's really how these two forces come together in relation to this particular species. We need to know whether it's invasive before we take other remedial action.

• (1235)

Ms. Laurin Liu: Thanks a lot for the examples and evidence that you've brought before the committee today.

I was wondering if you could comment on the government's strategy in terms of invasive species. You also made some suggestions in your presentation that this national strategy doesn't talk about climate change at all. I was wondering if you think that could be an improvement to the government's strategy.

• (1240)

Mr. Christopher Majka: I think it would be very much an improvement. This symposium that happened in November 2008 and included many different participants from regulatory agencies, Agriculture Canada, and forestry concerns clearly identified the importance of doing so—in fact, the indispensability of doing so—because as climate change continues to occur, we really must factor it into risk assessment and risk management formulas. Otherwise we're going to be missing a very essential component of what's happening ecologically and climatologically. So I think we definitely need to do that.

The Chair: You have 15 seconds.

Ms. Laurin Liu: All right. I'll pass. Thanks.

The Chair: Thank you.

Next, Ms. Ambler for seven minutes.

Mrs. Stella Ambler (Mississauga South, CPC): Mr. Chair, my questions are for the witnesses from CropLife.

First of all, could you please outline all of the safety precautions that must be taken before a pesticide can be used in Canada, both in terms of the health of humans and the pesticide's effects on the environment?

Mr. Peter MacLeod: The regulatory process in Canada is very similar to most developed parts of the world, first world countries. There are in fact probably about 250 to 260 different types of scientific studies that the government requires to evaluate a product before it is given approval or rejected. From a health perspective, some of the key areas that are assessed include the risk for cancer and the risk for birth defects. The risk for any human health problems is looked at in over 85 to 90 different studies. For the environment, again, it's about 160 studies, looking at everything from any potential impact on water, soil, or air, including the pesticide itself or any breakdown product, as well as the impact on different species in the environment, which range from bees to earthworms to ducks. A multitude of species are looked at to see if there's going to be any impact from an environmental standpoint.

Mrs. Stella Ambler: Thank you.

I myself am surprised to hear that there would be 250 studies per product, and I'm on this committee. So I'm wondering how we can better inform Canadians about the precautions that are taken before a product hits the market, because I would bet that the average Canadian would not guess that that kind of study is done before a product is released for sale.

Perhaps you could offer an opinion on how the federal government could better communicate about pesticide regulations, or maybe that's a question for you, Mr. Prouse.

Mr. Dennis Prouse (Vice-President, Government Affairs, CropLife Canada): I'd be happy to speak to that. We are encouraging the Pest Management Regulatory Agency to more publicly talk about the process and defend its science.

Just to give some other context to that, Transport Canada goes out and speaks about how it regulates boating safety, how it regulates automobile safety, how it regulates air travel safety. In fact, we saw a very instructive video a while ago from Transport Canada about a family travelling, making an overseas trip, and about all the work that went on in the background that allowed that trip to take place safely. I thought it was a very good instructional video.

The Canadian Food Inspection Agency does an excellent job outlining why it is that Canada's food safety is amongst the best in the world and outlining the measures that are taken. Yet we hear very little, as you point out, about how pesticides are regulated. Into that vacuum has come a great deal of fear and misinformation, and as a result there's an erosion of public confidence in the process and in the very products that are going to be needed in the battle against invasive species.

So the short answer to your question is yes, we would very much like to have Health Canada and its Pest Management Regulatory Agency take a more public role in outlining the process and showing why Canadians should have confidence in that science-based regulation.

Mrs. Stella Ambler: Thank you.

Once the pesticides are sold, how is it ensured that they're used in a responsible manner?

Mr. Peter MacLeod: It's a multi-pronged approach. Federally, there are requirements. A lot of it falls on the provincial governments to ensure the safe use. One of the things our industry does in partnership with provincial governments is promote a very strong safe use campaign, because the products are designed to be used in a certain manner, and certainly the safe application of those products is critical for the safety of the product itself.

CropLife, for example, in partnership with OMAFRA in Ontario, has sponsored a number of sprayer clinics for farmers. We teach the farmers how to properly calibrate their sprayers and how to avoid misapplication or spraying onto sensitive areas. Another thing we've done is to sponsor, along with the Ontario government, a YouTube-type video, which is new for us, on mitigating drift. The video shows farmers how to make sure the product is applied right on target and doesn't drift onto a sensitive area.

• (1245)

Mrs. Stella Ambler: Thank you.

Perhaps you could tell me how provincial pesticide bans, like the one we have in Ontario, affect the battle against invasive species.

Mr. Dennis Prouse: It goes back to what I spoke about a little bit earlier, and that's eroding public confidence. The regulatory process is the same. What we're talking about here is the ban against urban pesticides. You will see there are various forms of them. In some provinces, you'll see this happen at municipal councils, and a great deal of very colourful language is used to talk about how dangerous these pesticides allegedly are. Now, there's never any peer review science to back that up, but that language is out there.

Mrs. Stella Ambler: My husband and the neighbours talk about it all the time.

Mr. Dennis Prouse: Yet those same products are being used agriculturally. In fact, it's worth noting that I believe—and Peter, correct me if I get this figure wrong—96% to 97% of our member companies' products are sold agriculturally, yet it's that 3% to 4% that's used in urban areas that is the subject of such great debate.

You will see, especially in urban interface areas—and I bet, Mr. Chairman, in Langley you've seen some of this where urban areas are now creeping into farm areas. People move there, they see farmers spraying, and they get quite upset. They get quite upset because they've been told by their provincial government or by their local government that these pesticides are dangerous and these pesticides are potentially very harmful. It's the same product, regulated by the same respected national agency, made in the same place. What it's doing is eroding public confidence in the products and it's eroding public confidence in the regulatory process.

That's where we find the disconnect and that's what we think is a real problem.

Mrs. Stella Ambler: Sure. It is ironic that the same products that you can use on fruits and vegetables that we eat, you can't use on your front lawn to make it look better.

The Chair: Ms. Ambler, you have 10 seconds.

Mrs. Stella Ambler: Oh, shoot. I wanted to talk to you about stewardship programs to preserve the environment, but maybe we'll have time later.

Thank you, Mr. Chair.

The Chair: Unfortunately, time is up. Thank you.

Mr. Casey, you have seven minutes.

Mr. Sean Casey: Gentlemen from CropLife, we hear an awful lot about cosmetic pesticides, and you touched on it in your last answer. I guess I'm at 30,000 feet on this one, but when you hear about cosmetic pesticides, what does it mean to you?

Mr. Dennis Prouse: We actually avoid the use of the word “cosmetic”. We talk about urban use, because we think that preserving urban green spaces is very important. The word “cosmetic” is meant to imply that it's not necessary. We think in many cases it's necessary. It starts to become a little difficult, for example, when a municipality now has problems with noxious and invasive species on roadsides and now they have to spray. Is that cosmetic or isn't it cosmetic?

We don't like the word “cosmetic”, and we don't tend to use the word “cosmetic” because we think it implies that the products aren't necessary and we think...in some cases, if you're using an integrated pest management strategy, as Peter spoke of, there is a time and place for their use.

Mr. Peter MacLeod: If I may add one thing, we have no problem with people who are ready to choose. If they want to choose to not use a product for their lawn, if they don't see value in that, it's perfectly fine. Usually, where we get involved is when there's misinformation about why that is. If there are allegations made about products or their safety, or whether it's health or environment, that's where we become concerned. But for people who are ready to choose whether they want to have dandelions or weeds on their lawn, it's perfectly up to them.

Mr. Sean Casey: What I hear you saying is that your industry has very much been given a bad rap.

We get heavy rain in Prince Edward Island, as you know, Mr. MacLeod. We get a heavy rain and we have fish kills. There's something flowing off the farmers' land and into the rivers and the fish are going belly up.

I offer you a chance to respond to that.

• (1250)

Mr. Peter MacLeod: I'm from Prince Edward Island, as I mentioned. I have been involved with this fish kill issue for quite some time.

Prince Edward Island is a unique environment. There are literally streams, rivers, and brooks in just about every square inch of the province, as well as rolling hills, which leads to a lot of movement of soil from farmland into waterways.

As one of the witnesses talked about a bit earlier today, the change has really impacted the fish kill issue because of the severe weather extremes and events. In most of the fish kills I have been working with, there is a matter of three inches of rain coming down in 45 minutes, and all of a sudden, that farmer's field is not on his field anymore; it is down in the local brook.

I know that the provincial government in Prince Edward Island has been working very diligently to have setback zones and strips of grassed areas to try to prevent the soil from getting into the waterways.

Our conclusion is that it is not the pesticide itself that's the problem; it is the fact that the pesticide is on the soil, and the soil is moving into the aquatic area. We certainly support those types of stewardship programs and encourage farmers to spray precisely, to have setback zones from sensitive areas, and to have capture strips of grass between their potato fields and any streams or sensitive areas.

Mr. Sean Casey: Thank you, gentlemen.

Mr. Majka, there was something that struck me in the course of your presentation. You went through the priority areas. On the second one, you talked about financial resources being in steep decline for some of the cataloguing initiatives. You pointed specifically to one. Are there others you can draw our attention to?

Mr. Christopher Majka: There are. When one looks across the whole press of society, there have been declines at all levels—at provincial levels and federal levels—in terms of funding for some of these taxonomic initiatives. In part, I understand that as a museum worker, because, for example, museums don't seem particularly sexy, nor do reference collections. People visit them and think there are a lot of dead things and wonder what the point of these things is.

I can point out, for example, in relation to the brown spruce longhorn beetle, that key to identifying that species were specimens collected in 1990 that were in the reference collection of the Nova Scotia Museum. It took a decade, until the year 2000, before those were correctly identified. That is the point at which the brown spruce longhorn beetle came onto the Canadian radar. It really points out the importance of reference collections and museums in providing sort of baseline information.

For example, there is very little taxonomy training these days in universities. The National Research Council Canada monograph series has been key for decades. They produced very important monographs that are of value not only in Canada but throughout North America for allowing taxonomists to identify things. The demise of that series is a real significant blow to our ability to recognize things.

Funding for museums and monograph programs, even though they are not that sexy, is really important.

Mr. Sean Casey: Thank you, sir.

The Chair: You have 50 seconds left.

Mr. Sean Casey: No, that's good, thank you.

The Chair: Okay. Thank you.

We will now begin our second round. We have eight minutes left, so we will go four minutes each.

Mr. Choquette, you have four minutes.

[*Translation*]

Mr. François Choquette (Drummond, NDP): Thank you, Mr. Chair.

Thank you to the witnesses.

Pesticides are clearly an important tool for tackling the problem when it arises. But this solution is not a panacea. As you have noted, it's just one of many tools. Clearly, we cannot do without it in our society.

But Mr. Majka, you said—and I found this very interesting—that we instead need to think about preventing invasive species, among others, because given the climate changes that are currently gaining speed, it will be more and more difficult to manage the presence of these invasive species.

In your opinion, what would be the best way of finding the means to prevent them? Should we allocate more financial resources to the environment? I think you spoke about that.

Should we set up a standing committee made up of members from various environmental organizations, including those fighting climate change and those dealing with invasive species?

●(1255)

[*English*]

Mr. Christopher Majka: Yes, I agree with you on all these points. There are circumstances where pesticides are important and in fact indispensable. In many circumstances they are not a panacea, and they create many unintended and problematic consequences, in some cases worse than the problems they had been intended to address.

For example, some of you may have heard CBC Radio's morning program yesterday. *The Current* looked at the creation of superweeds, one of which is a species called the giant ragweed that has now appeared in Ontario. Many others are now significant problems in the United States, and they could be expected to occur here as well. They have been created by the use of herbicide-resistant superweeds that in some cases are enormous—10, 12, 15 feet high. They shade resources, use up nutrients and water, and are resistant to the herbicides that created them.

In terms of new species and what we ought to be doing to detect and deal with them, it is tremendously important to coordinate initiatives within federal departments and among provinces. We need to be looking in many areas, chiefly ports obviously, and places where goods are coming into Canada from abroad. We also need to improve our ability to detect species, and as I mentioned in my opening remarks, to differentiate between invasive species and the many alien species. An enormous number of them effectively blend into the biological woodwork.

We need to focus our resources on those that are really invasive and are potential threats. One species I know the committee is interested in is the emerald ash borer, which is a significant invasive species. I know that in the United States, for instance, many jurisdictions are simply giving up on protecting ash trees because the species has spread so rapidly—

The Chair: Mr. Majka, I have to interrupt you there, I'm sorry. Time is up.

We now have our last speaker, Mr. Lunney.

Mr. James Lunney (Nanaimo—Alberni, CPC): Thank you very much.

I'd like to thank our witnesses. We're discussing a very important subject. Of course, the purpose of this whole review of invasive species is not only to inform the members here but to look at our strategies. Are they sufficient, and how might we improve our strategies to manage alien or invasive species?

I wish we had more time to flesh this out because important issues have been raised by all the witnesses here today. However, let me simply say that I'm glad to hear from our crop people that you're working with a wider range of options today, and from the chemistry expert that you're working on things that are more holistic in approach. I take note of the comment that if we get better agricultural production from smaller areas of land, that releases former agricultural land to be restored to wetlands and so on. That's a very valuable contribution.

However, Canadians are concerned about persistent organic pollutants from another era of pesticides, pollutants that are still circulating in our atmosphere and having a terribly destructive impact on the environment and ecosystems, even on human physiology. I'm very encouraged to hear there are better strategies today, and I'd like to hear more about that.

Mr. Majka, in spite of admitting to members of the committee to some partisan involvement, I appreciate that you did raise some important points. I think the committee should take note of the Canadian strategy on biodiversity. It's been going on for a decade. I'd be interested in your impression of the work going on there. I think you raise some valuable points for the committee about making sure we do a thorough job in inventory. We still have not identified all the coleoptera or the homoptera, if you will, the different bugs and beetles. A lot of interesting work needs to be done there.

I hope both of you could contribute something to deciding when it's time to act. You raised some important questions about the longhorn beetle. We were delayed in acting on the pine beetle. It was a domestic species. The impact was devastating because the government of the day in British Columbia did not act in time. Deciding when it is a priority to act is an important question we're going to be facing. Perhaps you could comment on that. I'll leave it to both parties to try to contribute something in the limited time left.

● (1300)

The Chair: Mr. MacLeod.

Mr. Peter MacLeod: I'll pass it over to my colleague.

Mr. Dennis Prouse: I couldn't let that opportunity pass, Mr. Lunney, without telling you about the Clean Farms program that CropLife Canada launched and now runs. It's absolutely free of charge to farmers. Since the program was in operation, we've collected 87 million empty pesticide containers from farmers and 1.4 million kilograms of obsolete pesticides. We will collect those obsoletes and dispose of them in an environmentally responsible manner so that exactly what you speak of doesn't happen.

So you're right, we are proud of the improvements that have happened. We're going to continue to work on it. When we have more time, I would love to tell you and any other member of the committee who wants to hear it about the Clean Farms program and the Clean Farms initiative.

The Chair: Mr. Majka, you have the closing comments. You have about 40 seconds.

Mr. Christopher Majka: Those are important questions. I'm pleased to hear about and in fact have been following the integrated pest management approaches, which I think are very important. There certainly is a more holistic sense these days than there was in the era in which DDT was used indiscriminately. As one of your members pointed out, it's still circulating and causing problems.

It's also very important to investigate bio-control measures. For example, going back to the lily beetle, which I mentioned in my presentation, there's some phenomenal work being done in the United States in introducing a European species of parasite that is phenomenally effective at bringing down population levels and increasing the mortality of the lily leaf beetle. We really need to explore such things here in Canada as well.

The Chair: Thank you, Mr. Majka.

Thank you, Mr. Prouse and Mr. MacLeod.

The time has expired. I want to thank the witnesses for sharing with us their input.

I want to thank the committee members.

I'm looking for a motion to adjourn.

Ms. Michelle Rempel: Consider the motion to adjourn made.

The Chair: The meeting is adjourned.

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