



**Canadian Forum for Biological Control
Forum Canadien pour la Lutte Biologique**

Canadian Forum for Biological Control
Annual General Meeting
Tuesday, 4:10-5:10 pm, November 21, 2006

Holiday Inn Midtown Hotel, 420 Sherbrooke West, Montreal, QC

- 1) **Call to Order.** The meeting was called to order at 4.30 pm by Kevin Floate. The meeting was attended by 30 members including the present executive except for Colleen Hyslop who has been seconded to the UNFAO in Rome by Agriculture Canada.
- 2) **Approval of the 2005 minutes.** The minutes of the 2005 AGM were presented to the members. Moved for acceptance: Bruce Broadbent
Seconded: Jean-Louis Schwartz. Accepted.
- 3) **Presidents Report.**

This year marks the 12th anniversary of the CFBC. Each year, we try to sponsor a symposium of general interest to all members of the biocontrol community, including researchers, regulators, and private industry. This year in particular, I think we achieved that objective with the series of speakers who so graciously gave of their time to be here this afternoon. A list of the speakers, the titles of their talks and accompanying abstracts is appended to the minutes of this meeting (appendix 1). Normally, the annual general meeting of the CFBC is held immediately before the other meetings with which it might be associated. Due to a scheduling conflict, this year's AGM was 'embedded' within the general activities of the ESC/SEQ. As a result, we had a very good attendance at the symposium [approx. 100] and hopefully have attracted some new members to the Forum. This unintended strategy of embedding our meeting within the context of a larger meeting merits revisiting by the Executive.

Elections for the new Executive for 2006-2007 were held in February of this year. Members of the new Executive include myself (President), Colleen Hyslop (Vice-President), Rosemarie De Clerck-Floate (Past-President), James Coupland (Secretary), Bruce Broadbent (Treasurer), Jean-Louis Schwartz (2-yr term for Director-at-Large, 2006-07), and Graeme Murphy (4-yr term for Director-at-Large, 2004-07). To better acquaint you with these folks, their biographies are appended to the minutes of this meeting. Note that we will be looking for nominees in 2007 to fill the Executive positions that will be vacated next year. If you have an interest in filling one of these positions or nominating someone

please get in touch with our Secretary, James Coupland.

In closing, I quote the following from the President's report of the 2003 AGM, written by Rosemarie De Clerck-Floate. *"The CFBC will continue to network with other biocontrol or biocontrol relevant groups/members in Canada such as the ECIPM, NSERC Biocontrol Network, and Association of Natural Bio-control Producers."* By 2007, the Expert Committee on Integrated Pest Management will no longer exist, and NSERC funding for the Biocontrol Network will cease. Under these circumstances, the role of the CFBC as an advocate for the biocontrol community in Canada is even more important. I encourage all members to continue their support for the CFBC by renewing their memberships and taking an active role in the Forum's activities.

Kevin Floate, President, Canadian Forum for Biological Control

4) **Treasurer Report.** The treasurer report was presented by Bruce Broadbent and is appended here as Appendix 2. Moved for acceptance: Bruce Broadbent. Seconded: Mark Goettel.

5) **Follow up items from 2005 meeting.**

a. **Election of New Executive:** After a call for nominees for the positions of Vice-President, Treasurer, Secretary and Director-at-Large a new executive was put into position in early 2006. The biographies of the new executive council are given as Appendix 3.

b. **Update on Biocontrol Network:** Jean-Louis Schwartz gave us an update on the situation with the Biocontrol Network. The network will remain quite active in different areas mostly related to the organization and promotion of biocontrol in Canada. With respect to this it will continue to publish with the partial support of the PMC-AAFC, the quarterly "Biocontrol Files". It will maintain a website and be the main organizer of the 2007 Society for Invertebrate Pathology meeting in Quebec City (Aug. 12 -16) and the joint meeting of the ANBP/IOBCAMRQC/IBMA in Montreal (Oct. 28-Nov. 1). It will provide support to a consultant who will work with the PMC on biocontrol industry issues and is actively working with the Universite de Montreal on the development of a strategy to organize and support a sustainable national effort in biocontrol.

c. **Update on "Oversight of Regulation of Biological Control Agents" :** Peter Mason stated that there were no problems and no issues at the moment.

d. **Revision of By-Laws:** Bruce Broadbent mentioned that these were in preparation.

e. **Future of CFBC:** It was mentioned that future meetings embedded

with the annual meetings of the Entomological Society of Canada and other organizations would be of great benefit both for turnout at the symposia and added membership. It was suggested that perhaps there could be some financial support from the ESC towards this goal with an addition of perhaps 15\$ on the registration fee for the meeting going to support the CFBC.

6) New Business

a. **CFBC award for a student presentation at ESC/CPS meetings.** It was proposed that CFBC might sponsor an excellence award for the best student presentation on a biological control subject at either or both of these meetings.

b. **Other business.** It was proposed to have an invasive species forum and to ask for funding from a government body such as the CFIA. Along with this that we have two symposia per year at both the CPS and ESC meetings. The AGM would then proceed at one of these depending on the presence of the executive council.

7) **Next CFBC venue.** It was proposed as above to have the next (perhaps) 2 symposia at the ESC and CPS meeting. The AGM would then be at one of these venues.

8) **Adjournment.** The meeting was adjourned at 5.30 pm. Move to Adjourn: Bruce Broadbent Seconded: Mark Goettel.

Appendix 1.

CFBC symposium: Biocontrol in Canada: Partners and Potential Montreal, Nov. 21, 2006

AAFC's Pest Management Centre: update on the Pesticide Risk Reduction Program and Biopesticide Initiative activities

Leslie Cass, Pest Management Centre, Agriculture and Agri-Food Canada, Ottawa, ON; email: cassla@agr.gc.ca

The Government of Canada has established the Pest Management Centre (PMC) within the federal agriculture department to house the new Pesticide Risk Reduction and Minor Use Programs. Both programs work jointly with research colleagues within AAFC, and with personnel at the Pest Management Regulatory Agency (PMRA) to facilitate access by Canadian growers to new and enhanced tools for sustainable pest management.

The Pesticide Risk Reduction program aims to reduce the risks from pesticides used in agricultural production by working with growers to develop and implement risk reduction strategies. A key element in the implementation of these strategies is increasing the availability of alternative pest management tools and practices which reduce reliance on traditional chemical pesticides.

Consultations with growers, researchers, regulators, and other stakeholders has resulted in the development of a "Biopesticides Initiative" to help improve access to novel, low risk pest control products for Canadian growers. Since the fall of 2005, the PMC has been providing support for biopesticides through strategic work with growers, the provision of support in the submission process, and data generation through research trials.

Progress in various activities underway within the Pesticide Risk Reduction Program and the Biopesticide Initiative which are of relevance to the Canadian Forum for Biological Control will be discussed.

Biological control success - holding hands for public good eh.

Rob S. Bouchier, Lethbridge Research Centre, Agriculture & Agri-Food Canada, Lethbridge, AB; email: bouchierr@agr.gc.ca

AAFC has long history of research in biological control. The first weed biocontrol agent released in Canada was against St Johns' Wort in 1951. Since this time there have been more than 70 insects released against over 21 weeds with approx 2/3 establishment rate. Leafy spurge was early target for biocontrol, with the first insect released in 1965 and a total of 14 insects released in Canada. The most successful of these insects has been the root flea beetles in the genus *Aphthona*. Taking an agent from discovery to success is a staged process that includes research on basic biology and species interactions, foreign exploration and host-range screening, efficacy testing, and rearing studies, field release methodologies followed by short and long-term impact assessments. This can be a time consuming process requiring funding and cooperation of multiple stakeholders and governments for a minimum of 10 years. Even after a successful agent is identified, the ultimate success of a biocontrol agent lies with its implementation and integration by users. This area has been the focus of a recent release program for weed biocontrol in Southern Alberta. Factors contributing to the success of the program have been involvement of stakeholders in release site selection, consistency of release methods and the release team, 1 generation follow-up to releases with users, geographic databasing of release information, and feedback from the release program to ongoing research.

The Biocontrol Network: a Canadian example of the importance of networking authors and affiliations

Jean-Louis Schwartz^{1,2} and Raynald Laprade^{1,3}; ¹Biocontrol Network, ²Dept. of Physiology and ³Dept. Physics, Université de Montréal, Montreal, QC; email: jean-louis.schwartz@umontreal.ca

The Biocontrol Network's history, participants, R&D programmes and success highlights since 2001 will be described. To achieve research excellence in biocontrol of contained ecosystems, the Network programs were multidisciplinary, emphasizing synergism among investigators. The Network provided multidisciplinary training, co-supervision, mobility between laboratories and summer schools. It delivered improved or new products, and its research expanded into economics, social sciences, ethics and health. It became an active partner of regulators and developed new outreach tools. It gained high visibility and international recognition at scientific meetings worldwide and by organising international events in Canada. The future of the initiative will be discussed.

Challenges and Opportunities Presented by An Invasive Alien Species Strategy for Canada

Christine Tibelius, Invasive Alien Species Section, Plant Health Division, Canadian Food Inspection Agency, Nepean, ON; email:

The invasive alien species (IAS) Strategy for Canada was developed under the leadership of Environment Canada, but is the work of many federal and provincial government agencies, with input and advice from a wide range of non-government, environmental and industry contributors. Officially released in late 2004, the Strategy advocates a collaborative approach to protecting Canadian resources from IAS which focuses on prevention, early detection and rapid response, and increasing education and awareness. In early 2005, the Government of Canada endorsed the Strategy and provided funding to federal partners to initiate implementation of key elements of the Strategy. This support provides opportunities for new partnerships and new ways of approaching the age old problem of introduced species. It challenges government and nongovernmental agencies to seek mutually supportive ways to work together, to be pro-active in preventing new introductions, to be strategic in response to established invaders, to identify priorities in a scientifically sound manner, and effectively reduce the impacts of IAS on natural and cultivated resources in Canada. Initiatives such as the IAS Partnership Program, the PlantProNet and others will be described.

Association of Natural Biocontrol Producers (ANBP) – Who we are and what we do. (no abstract provided) Richard Ward, Biobest Canada, Ltd., Leamington, ON, email: ward@biobest.ca

“The Beetles Have Arrived”: Recent case studies on invasive alien insects in our forests

Sandy M. Smith & Peter de Groot, Faculty of Forestry, University of Toronto & Canadian Forest Service, ON Several potentially destructive invasive beetles have been discovered in our North American forests over the past decade, highlighting the need and potential for biocontrol options and partners. We review five recent introductions in eastern Canada including: 1) the pine shoot beetle (*Tomicus piniperda*) in 1993; 2) the brown spruce beetle (*Tetropium fuscum*) in 2000; 3) the emerald ash borer (*Agrilus planipennis*) in 2002; 4) the Asian longhorned beetle (*Anoplophora glabripennis*) in 2003; and 5) the sirex woodwasp (*Sirex noctilio*) in 2005. Case studies will compare the scientific approach taken to control or limit their spread after arrival, and the challenges and biological control opportunities common to each. Recommendation is made for increased biological control expertise and a more proactive position on biocontrol in light of increased invasions and the unknown legacy of past imports.

Appendix 2
CANADIAN FORUM FOR BIOLOGICAL CONTROL
Treasurer's Report

Financial Statement for Nov. 1, 2005 -Nov. 21, 2006
 [AGM, Canmore] [AGM, Montreal]

	Income	Expenditures	Balance
Income and Expenditures			
Balance carried forward Nov. 1, 2005			3094.22
No Membership dues collected in 2005-06			
AGM Canmore expenses [Room n/c, coffee break \$192.14] - paid Nov.2005		192.14	
Industry Canada Filing fee 2006 [June 15/06]		30.00	
ESC/SEQ 2006 Coffee Break on Nov. 21/06 - paid Oct. 2006		300.00	
Totals	0	522.14	2572.08
	Assets	Liabilities	Net Worth
Assets and Liabilities at Nov. 21, 2006			
Current assets			
Bank balance at Bank of Montreal, London [no fee "community chequing account"] with interest included	2573.52		
Interest earned [Nov.05 - Oct. 06]	[1.44]		
Current liabilities		0	
Net Worth			2573.52

Respectfully submitted on Nov. 21, 2006 by Bruce Broadbent, Treasurer, CFBC

Appendix 3

Introduction to the new CFBC Executive (2006-2007)

President – Kevin Floate. I am a research scientist employed by Agriculture and Agri-Food Canada at the Lethbridge Research Centre. I have a national mandate to facilitate development and adoption of biological agents to control (primarily livestock) insect pests. My program includes research on: 1) parasitoid wasps of filth flies for their use in classical biocontrol or commercialization, 2) Wolbachia bacteria to enhance the success of biocontrol agents, and 3) the effects of veterinary parasiticides on non-target organisms. I have served as Chair of the Student and Amateur Encouragement Committee of the Entomological Society of Saskatchewan (1985-88), President of the Entomological Society of Alberta (1996), Chair of the Marketing Committee of the Entomological Society of Canada (1995-97), Secretary of the Western Committee for Livestock Pests (1998-2002), member of the Biological Survey of Canada (1998-2003), and Secretary for the Canadian Forum for Biological Control (2002-2005). I have been an Associate Editor for the Canadian Entomologist since 2002. I am an Adjunct Professor at the University of Lethbridge where I have occasionally taught classes and serve on graduate student committees.

I have had many rewarding interactions with colleagues and organizations. My experiences have taught me that we all benefit from a strong network with good communication and active membership to help us achieve mutual objectives. As the incoming President, I hope to strengthen the role of the CFBC as the national network to promote the mutual objectives of the biocontrol research, industry and regulatory communities in Canada.

Vice-President – Colleen Hyslop. I am a native of Calgary, Alberta where I received a Master's degree in biology in 1978, focussing on small mammal population dynamics. I moved to Ottawa in 1979 and began a career with the Canadian Wildlife Service of Environment Canada. Between 1980-2002 I worked in a variety of programs including migratory birds conservation, state of the environment reporting, and endangered species, culminating as Chief of the secretariat for listing species at risk. In August 2002 I moved to the strategic policy branch of Agriculture and Agri-Food Canada to work on agri-environment issues. I am currently responsible for managing AAFC's Pesticide Risk Reduction Program, which is complementary to the Minor Use Pesticides program in AAFC's Pest Management Centre. We collaborate closely with the Pest Management Regulatory Agency of Health Canada.

The aim of the Risk Reduction program is to foster access to, and adoption by growers of, products and practices that reduce pesticide risks to health and the environment. Through our research program we are targeting significant support to the development and implementation of low risk and bio-pesticides for agricultural use. I see the Canadian Forum for Biological Control as a key network to further these efforts, through linkages with researchers, universities, industry, and government. I believe that the time is right to make significant strides in promoting biocontrol in Canada and I would very much like to work with the Forum to make this happen.

Director-at-Large – Jean-Louis Schwartz. Jean-Louis is a full professor at the Department of Physiology, Faculty of Medicine of the Université de Montréal. He is also the Network Leader of the Biocontrol Network, a Canadian consortium of 57 scientists from academia, Government and industry. The Biocontrol Network is supported by the Natural Sciences and Engineering Research Council of Canada (NSERC), several federal and provincial organizations, and a number of private partners. The Network conducts research and development in the area of plant protection against noxious organisms in agriculture and forestry. Jean-Louis was formerly a research scientist at the National Research Council of Canada in Ottawa (Biological Sciences) and Montreal (Biotechnology Research Institute), where he pioneered electrophysiological and biophysical approaches in endocrine physiology. For the last fifteen years, he has focused on the mechanism of action, at the molecular and cellular levels, of proteins that form pores in cell membranes, including several bacterial toxins that affect mammals and invertebrates. He and his collaborators ("Team Canada") are recognized world leaders in *Bacillus thuringiensis* based insecticide research. Within the framework of the Biocontrol Network, Jean-Louis is interested in the biology, the socio-economics and the regulatory aspects of non-chemical management of crop and forestry pests and of disease vector insects. He is the author of over 200 scientific articles, communications and book chapters. Jean-Louis' goal for the next decade is to contribute to the establishment of an all-inclusive Canadian consortium which will make Canada the international leader in the development of traditional and new crop protection within the context health and environment protection and that of global issues like climate change, invasive species, emerging diseases and sustainable resources.

Jean-Louis est professeur titulaire au département de physiologie de la faculté de médecine à l'Université de Montréal. Il occupe aussi le poste de directeur scientifique du Réseau Biocontrôle, un regroupement canadien de 57 scientifiques des secteurs académiques, gouvernementaux et privés. Le Réseau Biocontrôle est subventionné par le Conseil de recherche en sciences naturelles et en génie du Canada (CRSNG) et bénéficie de l'appui financier de plusieurs organismes fédéraux et provinciaux ainsi que d'un certain nombre de partenaires privés. Le Réseau oeuvre dans le secteur de la protection des plantes agricoles et forestières contre les organismes nuisibles. Jean-Louis a travaillé dans le passé comme chercheur au Conseil national de recherche du Canada à Ottawa, en Sciences biologiques, et Montréal, à l'Institut de recherche en biotechnologie, où il fut un pionnier dans l'utilisation des approches électrophysiologiques et biophysiques en physiologie des systèmes endocriniens. Depuis une quinzaine d'années, il s'est concentré sur le mode d'action moléculaire et cellulaire des protéines formant des pores dans les membranes des cellules, incluant plusieurs toxines bactériennes qui affectent les mammifères et les invertébrés. Jean-Louis et ses collaborateurs ("Team Canada") jouissent d'une réputation mondiale dans le domaine de la recherche sur les insecticides dérivés du bacille de Thuringe. Dans le cadre des activités du Réseau Biocontrôle, Jean-Louis s'intéresse aux aspects biologiques, socio-économiques et réglementaires de la lutte non chimique contre les ravageurs des cultures et des forêts, et contre les insectes vecteurs de maladies. Il est l'auteur de plus de 200 articles, communications et chapitres de livres scientifiques. Pour les dix prochaines années, Jean-Louis s'est donné pour objectif de participer à la mise en place d'un consortium canadien incluant l'ensemble des expertises pour faire du Canada le chef de file dans le domaine de la protection des cultures traditionnelles et nouvelles, dans le respect de la santé humaine et de l'environnement et dans le contexte des problématiques globales telles que les changements climatiques, les espèces envahissantes, les maladies émergentes et la durabilité des ressources.

Treasurer – Bruce Broadbent. I have been a scientist with Agriculture and Agri-Food Canada [AAFC] for 24 years, working on IPM/Biological control of insects. I am a graduate of McGill University [MSc] and the University of Guelph [PhD]. I was first based with AAFC at Vineland, ON involved with solving insect pest problems on greenhouse floriculture crops. In 1996 I moved to London, ON to research biological control strategy for outdoor vegetable and field crop insects, such as Lygus bugs, soybean aphids, and corn borers. I have also maintained my connection with research on greenhouse insect pests, such as thrips, fungus gnats and recently dipteran leafminers. I have some experience in the field of insect pathology. I have been a member of the CFBC from its early years and the CFBC Treasurer for the past 4 years.

Secretary - James Coupland. Dr. James Coupland is a recent returnee to Canada after spending many years in Europe. After taking his Ph.D. in Aberdeen, Scotland on the ecology and control of blackflies, he went to Montpellier, France to work with the CSIRO (Australia). While there he welcomed several AAFC biocontrol researchers from Canada and introduced them to the many and varied wonders of France. He worked on the biological control of pest molluscs (the second most important pest after insects of crops worldwide) and worked closely on insect and weed biological control projects at the same organisation. He surveyed extensively throughout Europe and North Africa and discovered several promising biocontrol agents for use in Australia, one of which has been introduced. Following this he then became an independent consultant. He worked as a scientific coordinator for the UN-FAO on the biological control of pest invertebrates in tropical rice growing areas and surveyed extensively in South America and Asia. He was a senior research partner on an innovative EEC-FAIR project to implement pesticide risk reduction in arable crops and developed several broad acre biological products that have since been commercialized. He has worked closely with many governmental and NGO research organizations world-wide. He is happy to be back in Canada for some good skiing and to work with Canadian researchers.