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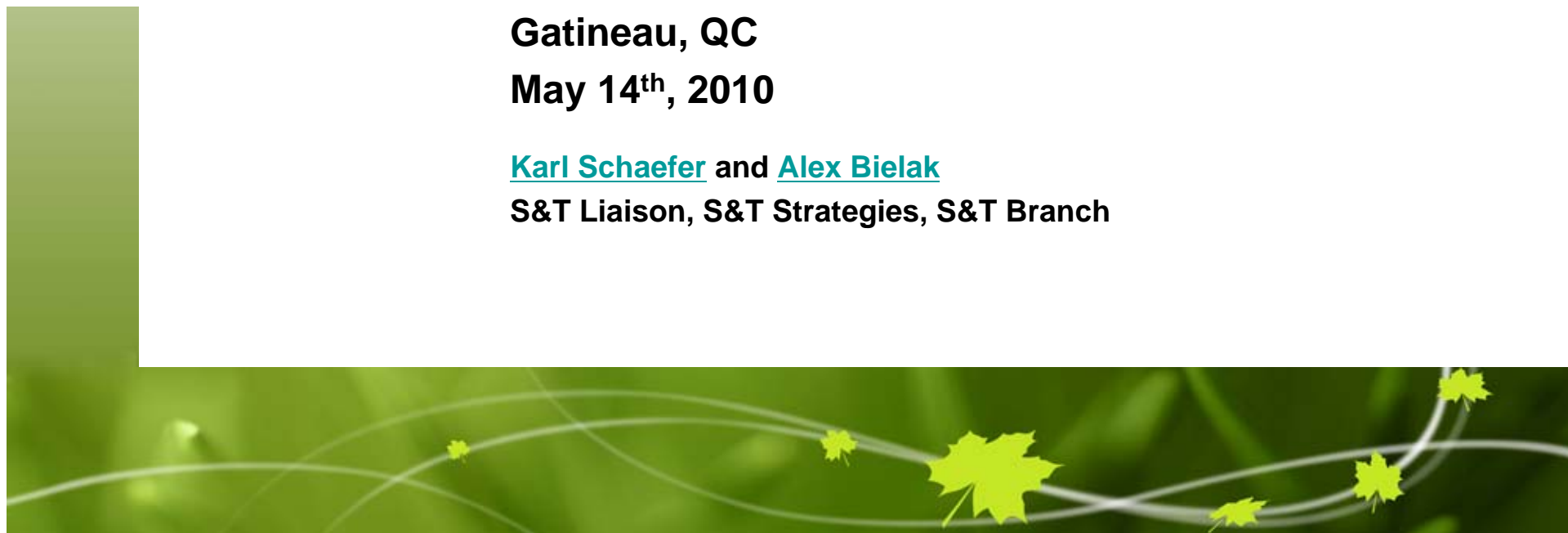
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From Communication to Translation and Brokering

Session – Science and Policy: Closing the Gap
PIPSC Science Policy Symposium
Gatineau, QC
May 14th, 2010

[Karl Schaefer](#) and [Alex Bielak](#)

S&T Liaison, S&T Strategies, S&T Branch



Successful Science Policy Integration

- Where there is Common Purpose
 - Typically at the major regulatory, program and policy levels within the Department
 - Examples:
 - CEPA & pesticides regulations
 - Chemicals Management Plan
 - Standards and Guidelines development
 - Ecosystem initiatives (i.e., Great Lakes)
 - IPCC WG's
 - Arctic
 - Federal Water Policy of 1987 (Pearse report and 22 research papers)



Why the Science-Policy Divide?

Different:

- time scales – i.e. policy short-term, science long-term
- communities – i.e. language, priorities, academic background
- Incentives – i.e. publish or perish for academics
- Understanding of uncertainty/risk
- Standards for evidence
- Locations – often siloed organizationally
- Responsibilities/accountabilities
- Public perceptions
 - Science seen as pure, objective, definitive
 - Policy seen as messy, subjective, approximate



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The Result

- A largely linear process where research products feed a decision-making process
 - sequential black box or hand-off model
- A process where scientists and policy/program managers have relatively little opportunity to interact, either early in a process or regularly thereafter
- Where science is often communicated or “pushed” to ill-defined audiences
 - *promotion of institution’s “product” as an end in itself*
 - *little attention to facilitating use, receptivity and impact*
- **Little attention to policy pull**
- **KT/KB is undervalued**



Knowledge Seeking Behaviour of Policy Makers – Australian Experience

Policy professionals at LWA:

- Time-poor, info-overload, rarely time to read
- Short-term perspective driven by reactive political context
- Need summaries; averse to things complicated
- Default to trusted sources
- Rarely skilled in web-based tools
- Jaundiced view of science; too expensive, want more \$



Policy Pull - Validating Our Hunch

- Experts workshop – December, 2005
 - Academics and practitioners from US, UK, and Canada
 - Key observation: “*Policy pull*”, or “*demand*”, side of the science-policy interface **remains a crucial and understudied area.**
- Need to better understand the science information needs of practitioners
 - What do they want?
 - In what format?
 - At what time?
 - Through what channel/vehicle?
- Ensure science is understood, and gets to those who can use it
- Will vary by audience and issue
- Metrics – follow up



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Surveying Science Seeking Behaviour of Conservation Authorities in Ontario

Gail Krantzberg
McMaster University

Science Horizons Interns

Gussai Sheikheldin

Karl Schaefer
Environment Canada

Zakiah Taha

- Intent - to better target, know your audience
- Small research project seeking to identify the science seeking behaviour of one particular science user - Conservation Authorities in Ontario
- Senior and junior officials



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Science Seeking Behaviour of Conservation Authorities in Ontario

Some Results

- Dominant science source = **personal communication**
- Main barrier to science use = **lack of time**
- Top factor influencing utility of science = **relevancy; credibility next**
- Want access to science info **fast, easy & electronic**
- Sources of science knowledge = **feds rank low**
 - Where connection exists – **ad hoc, serendipitous**
- Generally unaware of EC research, but **want to know**
 - **Like e-newsletters** for quick hit – will then dig deeper if necessary
- Need for **knowledge translators and brokers!**
- EC S&T research has enormous opportunity to better inform external decision-making
- Get it out - but understand user needs and tailor to constituency



SKEP

Scientific Knowledge for Environmental Protection

- Union of 17 government ministries/agencies in 13 European — countries
- 2008 Study comparing approaches and experiences between Europe and North America (Bielak, Holmes, Savgård, Schaefer):
 - **planning and management** of research projects and programs
 - **communication of results**
 - roles of **interpreters and intermediaries**
 - **engagement with stakeholders**
 - **evaluation** of the processes of dissemination and implementation
- The two studies interviewed:
 - 128 people
 - 40 organisations
 - 13 countries



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SKEP – Some Highlights

- Resources and responsibilities for dissemination rarely built into projects and programs
- Ongoing communication is critical but infrequently practiced
 - Face-to-face meetings between researchers and users work best
- Research communication – rarely targeted to meet user needs, provided in preferred format or through optimal channel
- Interim communication is essential to optimally inform decision making
 - often can't wait for peer reviewed publications
- Interpreters and intermediaries are necessary
 - Policy makers and analysts typically lack time to seek science information
 - Researchers often do not have the inclination, skill sets or incentives to communicate
 - Fund the mobilization of knowledge
 - Recognize role of interpreters and intermediaries (i.e. job description)
- Evaluation of the uptake and impact of research is poor – metrics are needed



KT/KB Defined

- **knowledge translation**
 - science information is packaged to the preferences, channels and timescales of particular audiences
- **knowledge brokering**
 - Interaction between researchers and policy / decision makers in using science is facilitated



Formal KT/KB Jobs

Director Knowledge Translation
ECHO (04/09)

Research and Knowledge Transfer
Advisor
Department of Public Safety and
Emergency Preparedness (05/09)

Knowledge Translation Officer
Neurodevnet NCE (02/10)

Ontario Knowledge Transfer and Exchange Community of Practice
 Knowledge Broker with the Canadian Centre on Substance Abuse

Posted: 26 Jan 2010 05:23 AM PST

The Canadian Centre on Substance Abuse

Position Profile: Knowledge Broker

The Canadian Centre on Substance Abuse (CCSA) has a legislated mandate to provide national leadership and evidence-informed action to reduce alcohol and other drug-related harms. CCSA is looking for a Knowledge Broker, reporting to the Director of Research and Knowledge Broker, getting the right information into the right hands at the right time, contribute to the uptake of national priority work and


Knowledge Broker and International Partnerships Coordinator

Posted: 13 Apr 2010 02:13 PM PDT

AllerGen NCE is seeking a Knowledge Broker and International Partnerships Coordinator. This position works closely with the Managing Director; Manager, Research and Partnerships; and Network Investigators to identify, develop and formalize research knowledge translation, dissemination and capacity building opportunities that generate social and economic benefits for Canadians aligned with AllerGen's strategic objectives in the area of knowledge exchange and exploitation.

[Download the job description for details.](#)

This is a contract position for up to two years. Contract renewal is subject to available funding beyond March 31, 2012.



**Knowledge Broker
Homeless / Mental Health Research Initiative
Research Demonstration Project
(Based in Calgary)**

The Mental Health Commission of Canada is a non-profit organization created to focus national attention on mental health issues and work to improve the health and social outcomes of people living with mental health problems.

The Commission, while funded by the Government of Canada, is a national body that operates at arm's length.

The Homeless / Mental Illness Research Demonstration Project is a large scale intervention study taking place in five Canadian cities over a four year period. Its purpose is to conduct research to determine what services and supports will help people who are homeless and living with mental health problems or illnesses. The Knowledge Broker will:

- play a key role in knowledge translation of findings from all sites;
- report to the Directors of Policy and Communications, and will work closely with the research project team, site coordinators in each city as well as the MHCC Communications team.
- coordinate the development and distribution of information and research findings to a wide range of stakeholder groups, and develop relationships with appropriate communities to promote the integrated knowledge translation goals of the project.

You possess a master's or doctoral degree in a relevant discipline (science, health administration, business or arts and humanities) with a minimum of five years related experience; understanding of knowledge translation theory and practice and proven ability to engage diverse audiences and build collaborations between research and user groups. Experience/expertise in field evaluation, mental health and homelessness is an asset.

For more information on this job posting, check details on the website: www.mentalhealthcommission.ca

To apply for this position: Please forward your resume (in MS Word or Adobe PDF nmurphy@mentalhealthcommission.ca by November 14 2008

AA695926

National Post November 5th 2008



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Knowledge Mobilization at YorkU

Knowledge mobilization (Kmb) services at York University are offered within three service streams: creating space; building capacity; and partnerships and collaborative activities. Each has unique activities that are designed to forge relationships between researchers, graduate students and their non-academic research partners.

- Click [here](#) to view a presentation outlining KMB services at YorkU

Vision Statement

Recent News

Nutrition and Diabetes KM in the AM- May 5

GET (Green Economy Transition) Ahead

YorkU KM Expo 2010: Bridging Cultural Boundaries: Push, Pull and Co-Production of Knowledge

Events & Alerts



RSS Feed



Twitter



Event Calendar

Interdepartmental KT/KB Dialogue

- Conceived and led by EC (S&T Liaison)
- Sept 30 – Oct 1, 2009, CCIW, Burlington
- 40 participants from 15 departments
- improve recognition and support of KT/KB within the federal government
- Priority items:
 - Community of Practice & Conference
 - Suite of Products/tools
 - Performance Metrics
 - KT and KB Program Design
 - S&T ADM Integration Board initiative



Skill Sets of Intermediaries

- See / think big picture
- Work in multi-disciplinary environments and understand linkages between disciplines
- Ability to work horizontally
- Relationship building
- Networking
- Synthesizing clear messages from a broad set of inputs
- Teamwork
- Communication
- Question-framing skills
- Collaboration, facilitation, negotiation, mediation – and sense of when which is warranted
- Ability to craft “boundary objects” (e.g., documents to frame discussion)
- Science user networks
- Trust, confidence



KT/KB at EC

EC Institutional Recognition

- **Science Plan (2007)** “*Recognizing that transmitting new scientific knowledge to decision makers is a key role of government science, the S&T Branch will **promote more effective communication between scientists and decision makers***”
- **S&T Communications Framework (2009)**

Dedicated unit:

- S&T Liaison Division
- “*We broker scientific and technological knowledge used by the policy and decision making communities and we help ensure that the needs of decision makers are represented to the S&T community internally and externally.*”
- Key activities
 - Targeted liaison and writing to specific users and audiences.
 - Strengthened science-policy linkages.



S&T Liaison Initiatives

- Science-Policy Workshops and Study Series
- Targeted science writing
- Newsletters
- Web
- EC Expert
- EC Alert

Microbial Source Tracing in Aquatic Ecosystems
The State of the Science and an Assessment of Needs

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Home > Science and Technology > Linking S&T with Policy & Decisions > Strengthening Science-Policy Links: Study Series

Science and Technology

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S&T Centres
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Linking S&T with Decisions

Managing S&T
Assessments
Monitoring
Data Collections

Proactive Disclosure

Site Map

Study Series No. 1

The separation between science users and researchers is now well documented. Recent efforts to bridge this gap have centred on the issue of communicating science to specific targeted "science user" audiences, highlighting the importance of knowing your audience. This case study investigates Ontario Conservation

Diamondoids
New Tools to Solve Environmental Oil Spill Mysteries

The Problem

Oil spills can kill fish, marine mammals and birds, and destroy plant life. Even small amounts can damage the existing food balance and cause long-term effects on aquatic ecosystems and wildlife.

Identifying the exact source of petroleum spills is hard to do – but essential for successful investigation and enforcement.

When a spill of oil or other contaminant occurs, difficult questions are asked: Who caused the contamination? How much oil is there and how long will it take to clean up? What kinds of contamination have people been exposed to? Although scientists have developed tools to help in environmental forensic investigations, gaps of petroleum products are difficult to identify conclusively. Biomarkers (unique chemical compounds that can indicate biological treatment and biodegradation or degradation) are difficult to create and are one of the most important biomarkers used for forensic fingerprinting. Unfortunately, the most commonly used biomarkers for the purpose are overvaluing the following:

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EC Science Alert

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EC Science Alert
EC's Technology Plan
Science Policy
S&T Events
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S&T Authors: Your science will reach EC's policy and decision makers
Visit the Science Summary Management System to prepare Science Summaries

EC Science Alert delivers summarized science to the right people. You must prepare a Science Summary each time you produce a formal scientific or technical publication (i.e., journal article or book chapter). Your Director/DC may also request a Science Summary for a complementary publication. The summary communicates new knowledge and applications to the S&T community and to EC's policy, management and communications committees.

See the Guide for S&T Authors

EC Science Alert is an electronic management system that captures summarized science in a central database. Science Summaries are managed by EC's Publications Policy (see [http://www.ec.gc.ca/science-alert](#)) and are available to the S&T community and to EC's policy, management and communications committees. Learn more about the system.

Date Modified: 2009-04-01

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Wildlife and Landscape Science News

Spring 2008

Wildlife and Landscape Science News is a quarterly update for scientists, practitioners, managers, policy makers and others working to understand, conserve and manage Canada's wildlife and habitats.

[Sign up!](#) [No thanks.](#)

Wildlife Populations

[Red Knot Population Declines to Less Than 15,000](#)
[Population Modeling for Ivory Gulls Yields Alarming Results](#)
[Seabird Ecology Report Pending for the North Atlantic](#)
[Seabird Ecology and Conservation Overview Available for Canada](#)

Habitats and Ecosystems

[Murres Dive Characteristics Linked with Diet Change in Arctic Marine Ecosystem](#)
[Landscape Changes Documented for Rural Southern Quebec](#)
[Maintaining Forest Biodiversity During Recovery from Mountain Pine Beetle Outbreaks](#)
[Does Agricultural Policy in the Prairie Provinces Influence Nest Success of Ducks?](#)

Health Effects of Toxics

[State of the Science Explored: Wildlife Exposure to Mercury](#)
[Dramatic Acceleration in Trends of Flame Retardants in Great Lakes Gulls](#)

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Please send comments or questions to [Julie Suzanne Pollock](mailto:Julie.Suzanne.Pollock) (Wildlife and Landscape Science Liaison).
Email Julie.Pollock@ec.gc.ca | Tel 705 458-3328 | Fax 705 458-3301



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Concluding Thoughts

- Closing the science-policy gap must evolve to a routine approach where:
 - knowledge is translated to preferences of targeted audiences
 - knowledge brokers play an increasingly important role, and
 - users help ‘pull’ the required science to meet a policy or management imperative.
- Don't wait for big institutional response
- Just do it



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