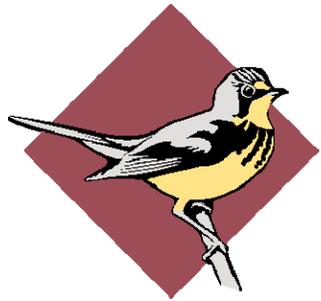


# **An innovative conservation partnership to inform best management practices and facilitate regulatory compliance**

**Pete Davidson**





**BIRD STUDIES**  
**ÉTUDES D'OISEAUX** **CANADA**



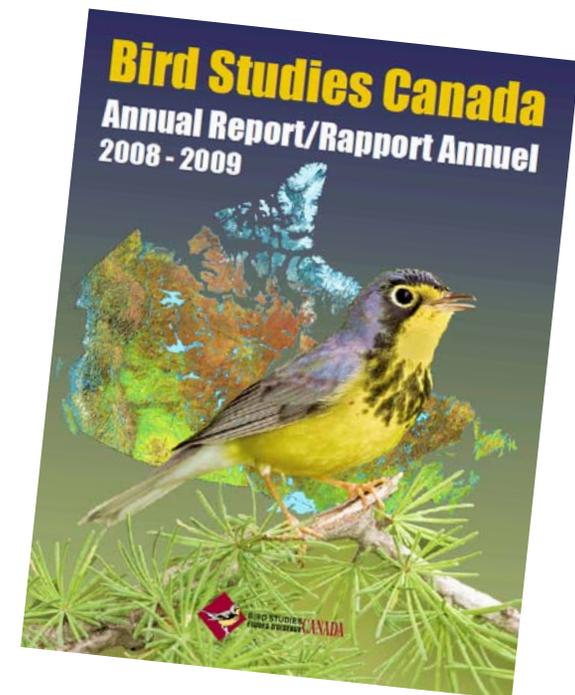
- **Canada's national bird science NGO**
- **Canadian partner in BirdLife International**
- **Objective science for conservation and related outreach and education work**
- **17,500 citizen scientists = 150 FTEs**





# Modus Operandi

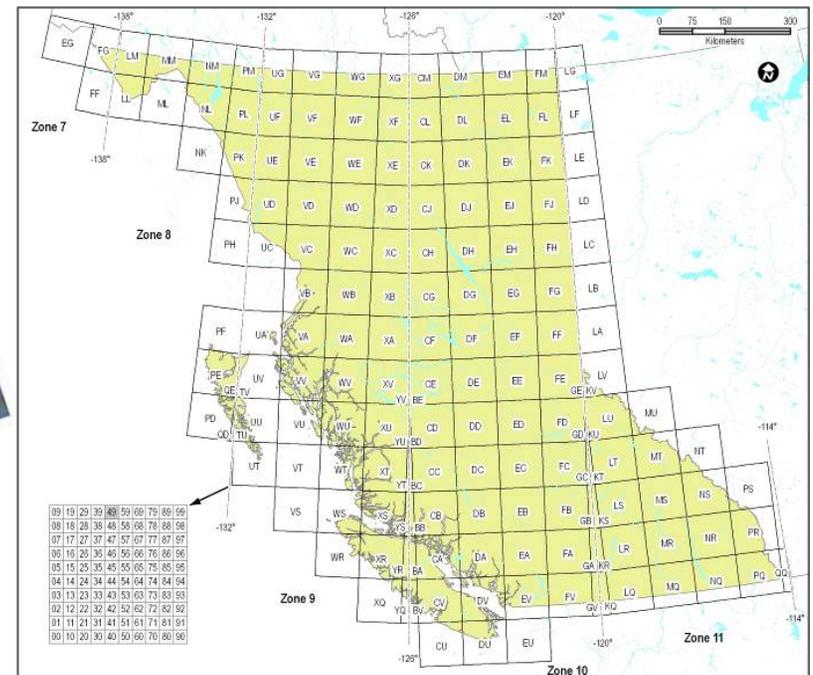
- Most of our programs are partnerships
- Data collection, analysis and dissemination
- Conservation outcomes effected through regulatory processes, Joint Ventures, land purchase & management
- Science outreach & education





# What is a Breeding Bird Atlas?

- Assessment of the distribution (where) and abundance (how many) of all birds during the breeding season
- Standard, repeatable methodology & framework
- 5-year snapshot repeated every ~20yrs
- “Live” public database for research and analysis





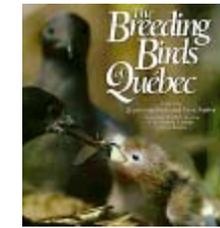
Environment  
Canada

Environnement  
Canada

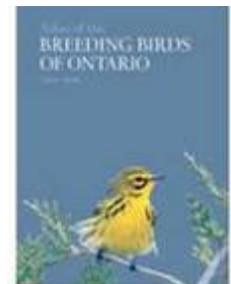
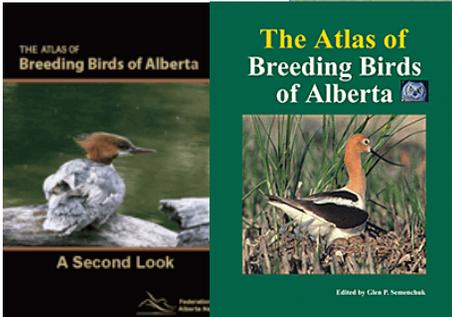
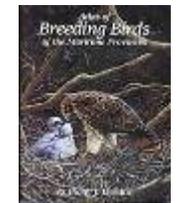
Canadian Wildlife  
Service

Service Canadien  
de la faune

# Breeding Bird Atlases in Canada



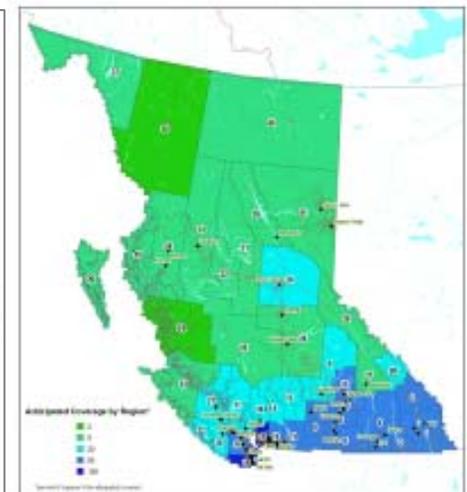
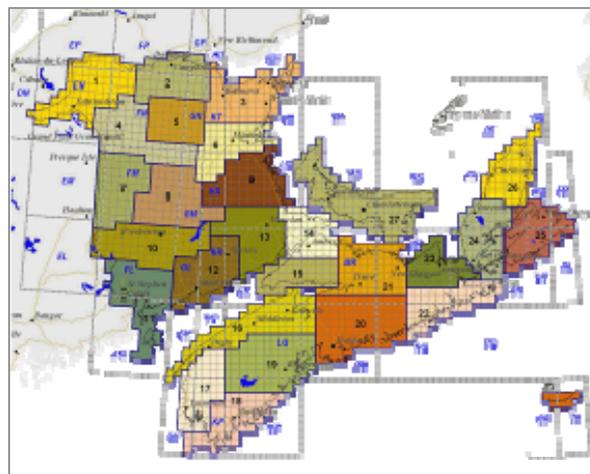
ATLAS DES  
OISEAUX NICHEURS  
DU QUÉBEC





# The Atlas Business Model

- Broad-based partnerships
- Federal & provincial governments, corporate sector, academia, NGOs all contribute complimentary strengths
- Operated at the provincial scale
  - ~3 FTEs per project (coordinator, assistant, GIS & data mgmt)
  - Network of volunteer Regional Coordinators, 1,000s of “atlassers”





# A Broad-Based Partnership



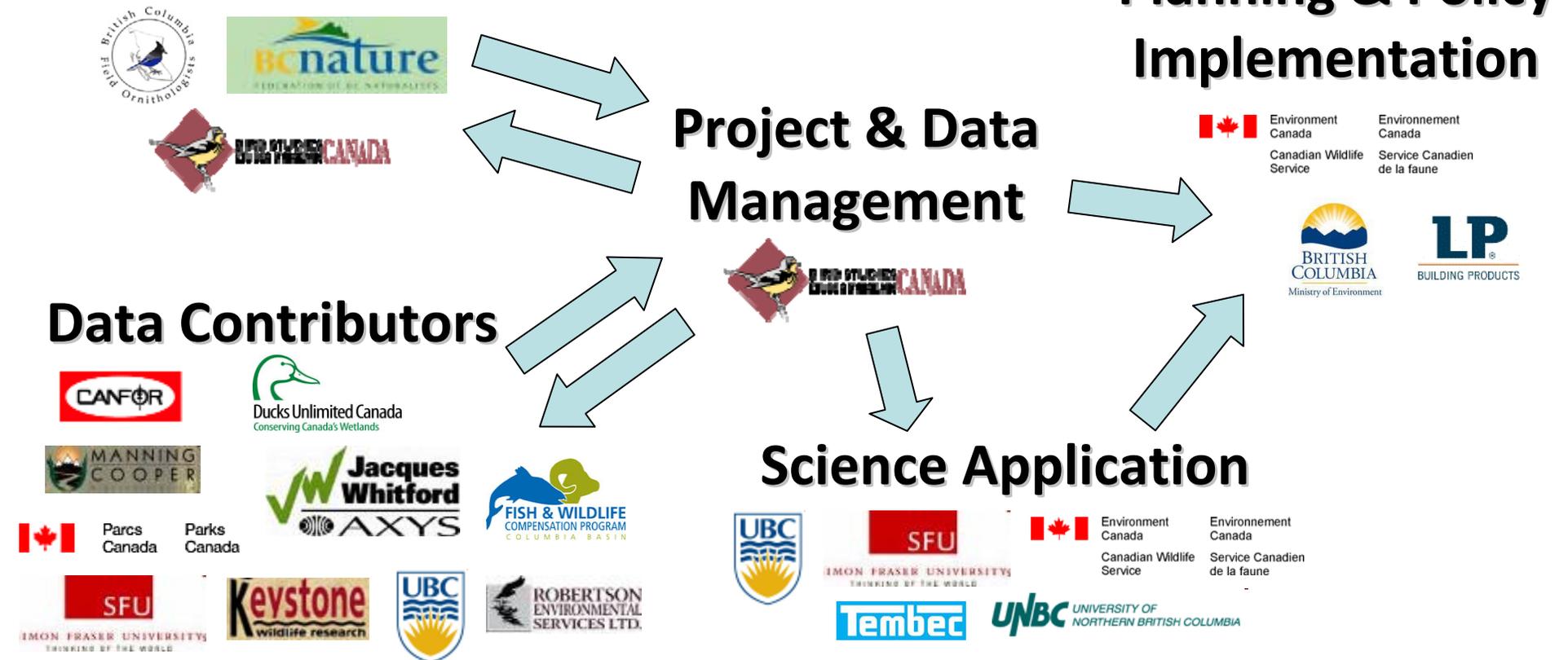
## Citizen Science network

## Planning & Policy Implementation

## Project & Data Management

## Data Contributors

## Science Application

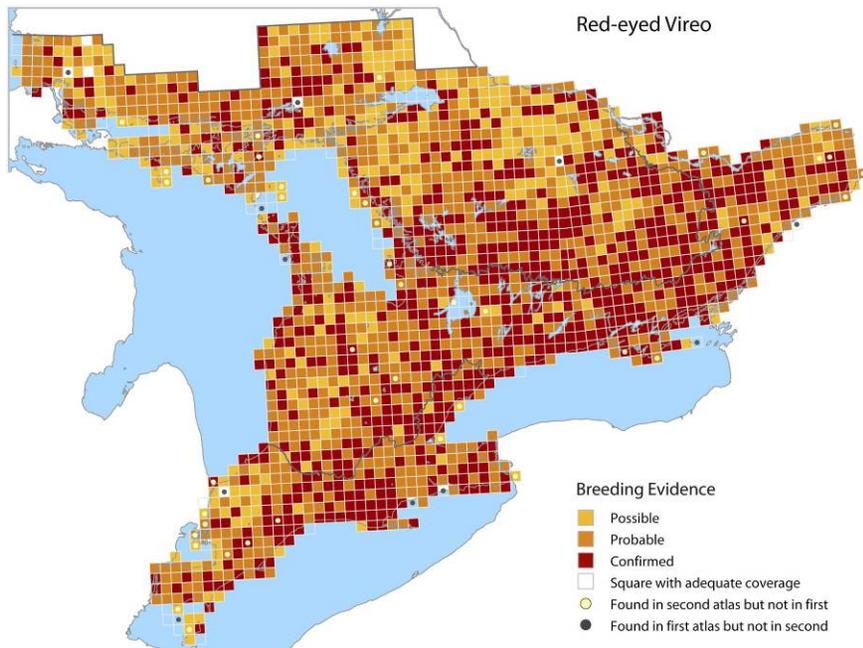




# Identifying Stewardship Responsibility

- Survey techniques and what they tell us:
  - Where does the species occur (distribution)
  - Where is it most common (abundance)

## Breeding Evidence



## Relative Abundance

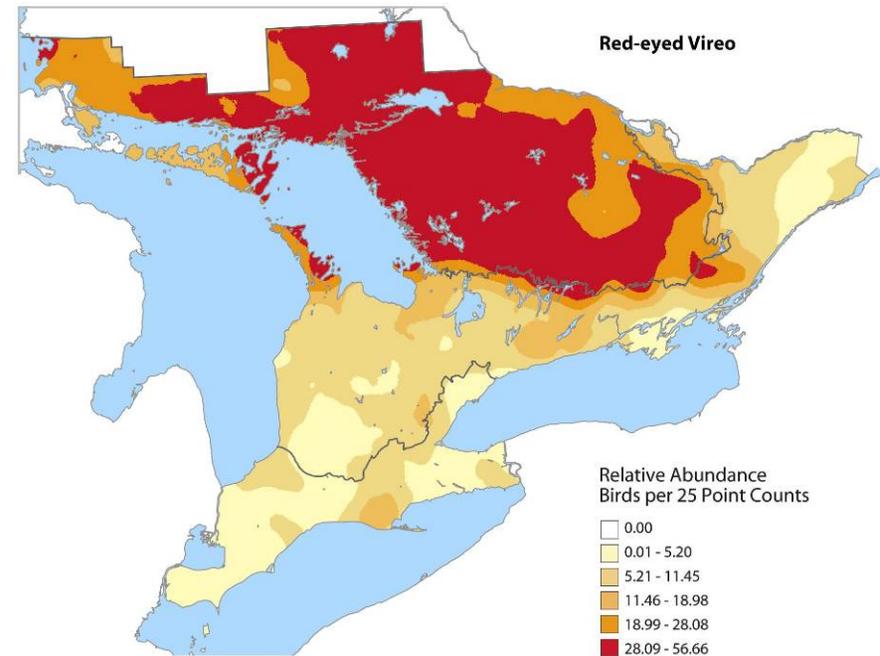




Photo: Ralph Hocken

# Nature Counts



A partner of the Avian Knowledge Network

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[Download](#)
[Datasets](#)
[Toolbox](#)
[Resources](#)

Welcome Christopher Di Corrado (cdicorrado) [[Project Coordinator](#)] - [Log out](#) | [Your pr](#)

Tools for project coordinators:

[Data requests](#)

[Updates](#)

## Download data

Using this page, you can download raw data from various monitoring projects. All data are provided using the standard Bird Monitoring Data Exchange (BMDE) schema developed for the [Avian Knowledge Network](#). Note that raw data is not available for all projects, and that some data may only be available under specific conditions, which will be explained in the data release policy. More information on each dataset can be found [here](#). Note that you need to be logged in this site to be able to access download files or saved queries. You can create a new login [here](#).

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Full datasets are usually the preferred way of accessing data from this site as they are already packaged and therefore will require less strain on our servers. Select which dataset(s) you would like to download below and click "Download". Please note that not all datasets are available as full dataset download and that the custom search should then be used.

Dataset/Project	#Records	<a href="#">Access Level</a>	<a href="#">Sharing Policy</a>	Download?
Atlantic Nocturnal Owls Survey [Atlantic Canada Nocturnal Owl Survey]	9,851	Level 3		<input type="checkbox"/>
British Columbia Breeding Bird Atlas (2008-2012): raw breeding evidence [British Columbia Breeding Bird Atlas]	34,631	Level 3		<input type="checkbox"/>
British Columbia Breeding Bird Atlas (2008-2012): highest breeding evidence per square [British Columbia Breeding Bird Atlas]	29,112	Level 3		<input type="checkbox"/>



# Conservation Applications of Breeding Bird Atlases

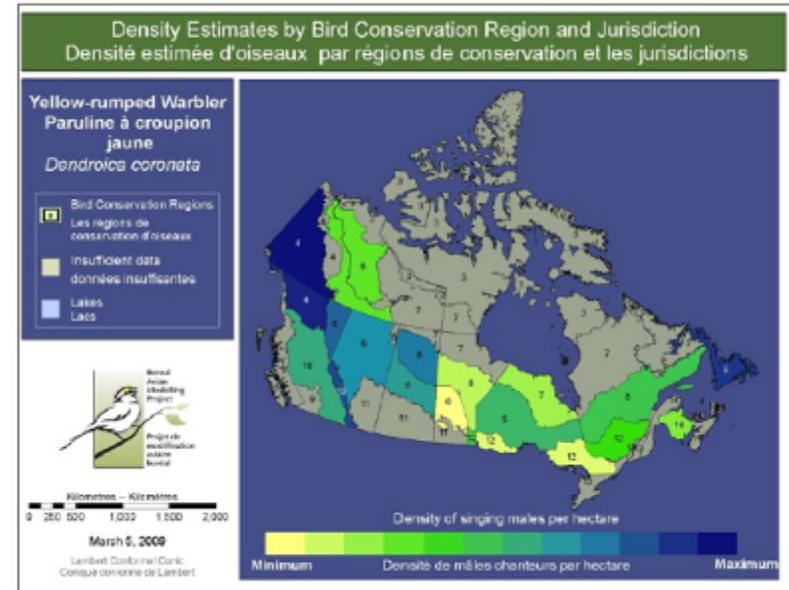
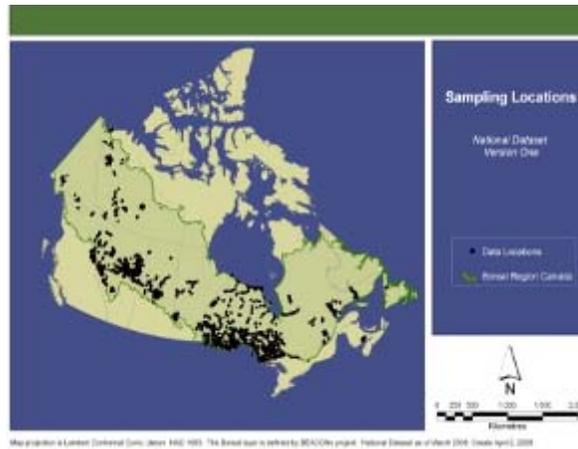
- Conservation design - identifies key areas for stewardship
- Regulatory Compliance
  - Species at Risk, Environmental Assessment, Incidental Take
- Modelling bird occurrence at different spatial scales
- Change analysis – trends & Species at Risk



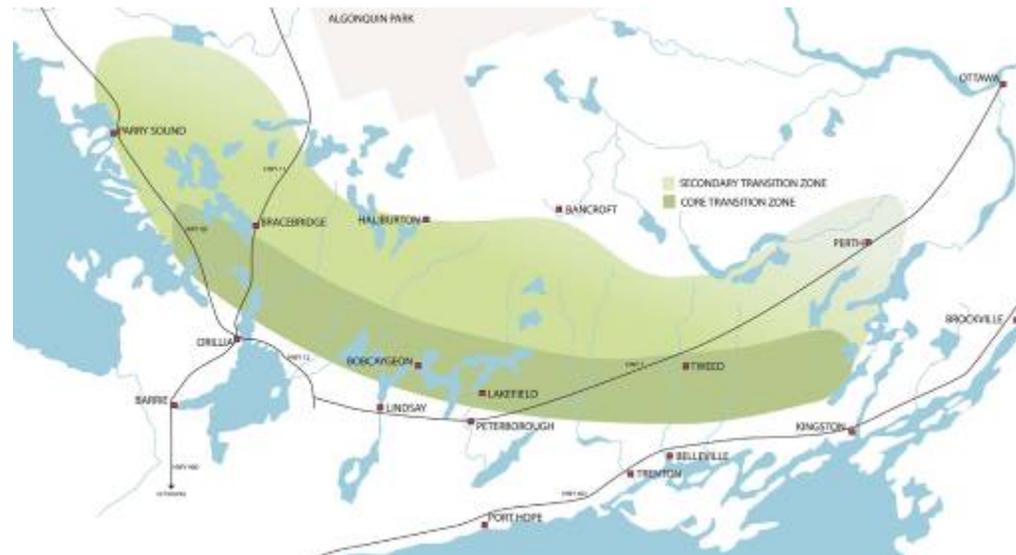


# Modelling bird abundance at different scales

- Boreal Forests – [www.borealbirds.ca](http://www.borealbirds.ca)



- The Land Between





# National Atlas Program – Forest Industry Collaborations

- **Partnerships in Atlantic Canada & BC**
  - Logistical support, field surveys
  - Technical skills & regional coordination
  - Data sharing to inform management
  - Species at Risk factsheets



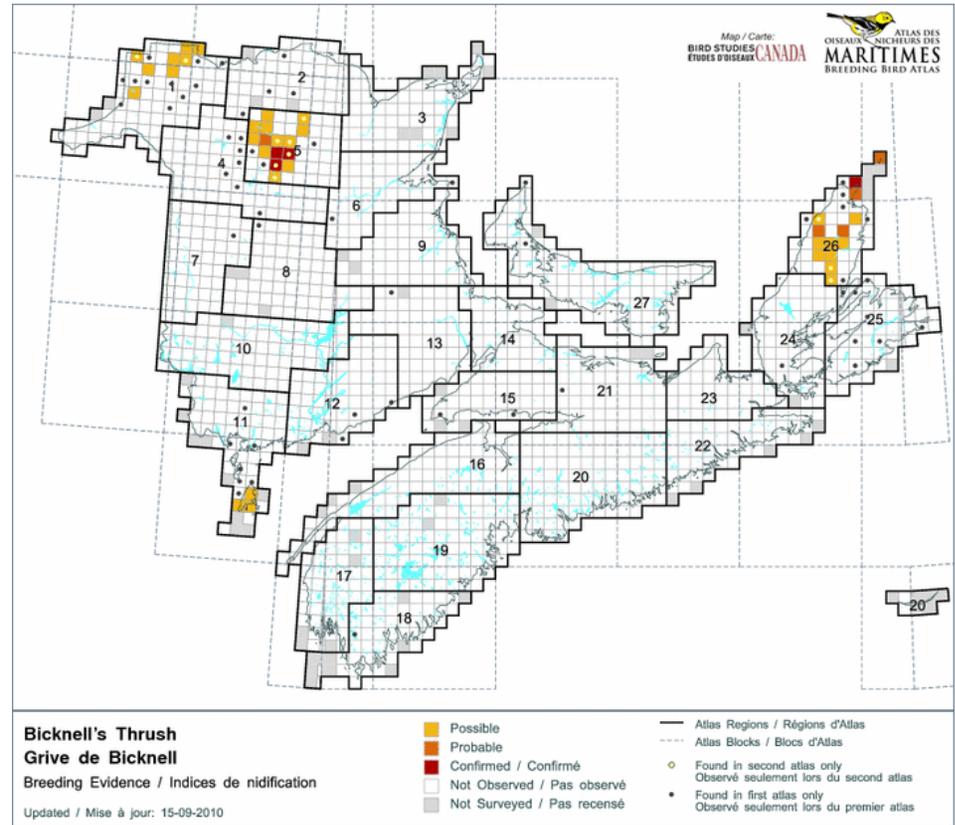
CANADA WARBLER	STATUS: <i>Threatened</i>
<b>Appearance</b> <ul style="list-style-type: none"><li>• White eye-ring</li><li>• Black "necklace"</li><li>• Yellow throat and belly</li><li>• Chickadee-size</li></ul>	 <small>JERRY DECKER</small>
<b>Habitat</b> <ul style="list-style-type: none"><li>• Mixed-aged, mixed-species stands</li><li>• Canopy gaps</li><li>• Damp or wet forests</li><li>• Thick under storey or shrub layer</li></ul>	
<b>Nest</b> <ul style="list-style-type: none"><li>• Cup of grass, leaves and plant fibres</li><li>• Concealed on or near ground in an upturned tree root, rotting stump or moss hummock</li></ul>	 <small>BECKY STEWART</small>
<b>Detection tip</b> <ul style="list-style-type: none"><li>• Secretive; identified by song but requires practice (begins with a single chip followed by a jumble of notes)</li></ul>	
<b>Most sensitive</b> June 1 – July 31	



# Bicknell's Thrush Stewardship



- Forest dependent Species at Risk
- Breeds in New Brunswick & Nova Scotia
- Likes dense, regenerating, high elevation conifer forest
- Atlas surveys have established habitat preferences
- Implementing Best Management Practices related to PCT



NewPage®



Canada

The Government of Canada Habitat Stewardship Program for Species At Risk



# Project Concept



- Apply bird atlas data to inform management for biodiversity conservation values (SFI IP Objectives 1, 4 & 15)
- Assist SFI program participants in compliance with regulations (SFI IP Objective 14)
  - Federal Species at Risk & Migratory Birds Acts
  - Provincial Wildlife and Habitat legislation
  - developing Incidental Take file
- Landowner Outreach & Community Involvement (SFI IP Objectives 8 & 17)





# Project Implementation



- **May-July 2010, 2011, 2012**
  - Field Surveys
- **October 2010 onwards**
  - Species lists by block, SAR exact locations shared with SFI partners
  - Consultation process to define information needs for compliance (ongoing thru' 2010-2012)
- **2011-12**
  - Development of web tools for SFI program participants to apply raw and processed bird data to inform best management practices
  - Mapping Species Abundance in Maritimes provinces



## Project Results – Q1-2, 2010



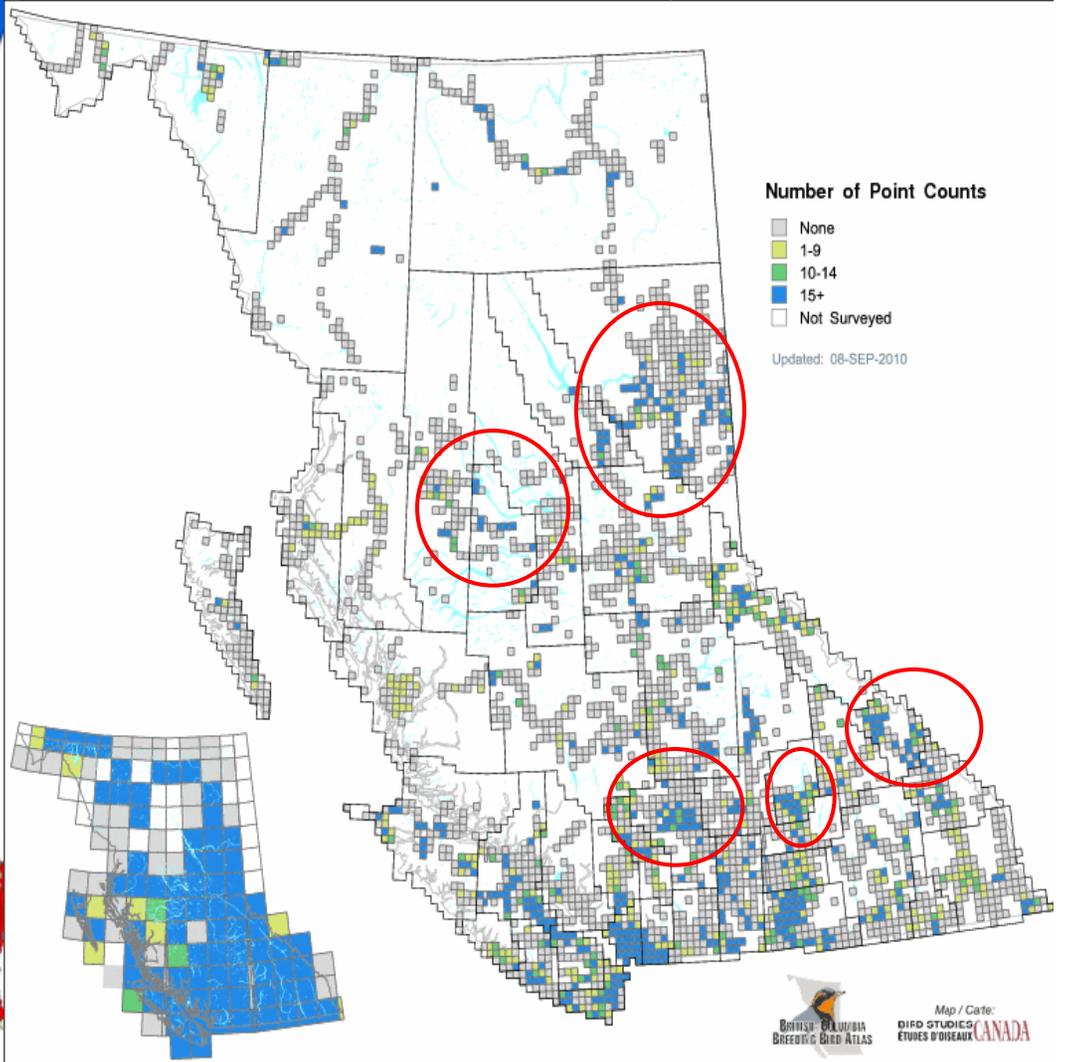
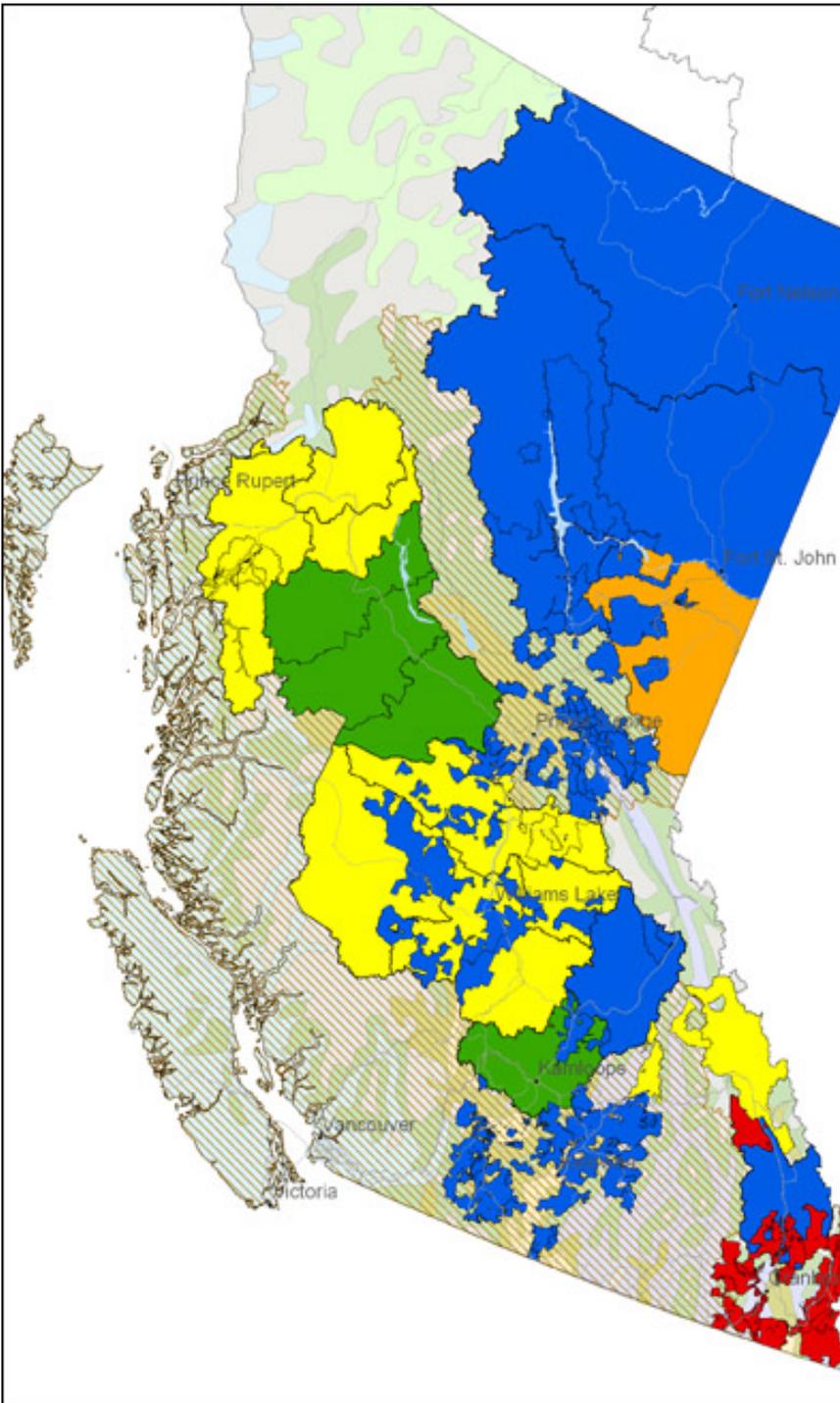
- ~14,000 5-min point count surveys completed nationwide (target 12,000)
- 3,800 registered Atlas participants completed >30,000 hrs of surveys (=~16 FTEs)
- >5,000 10km grid squares surveyed (target 4,000), yielding ~200,000 records (target = 200K)
- ~2,750 new federal Species at Risk locations





**Certification Type\***

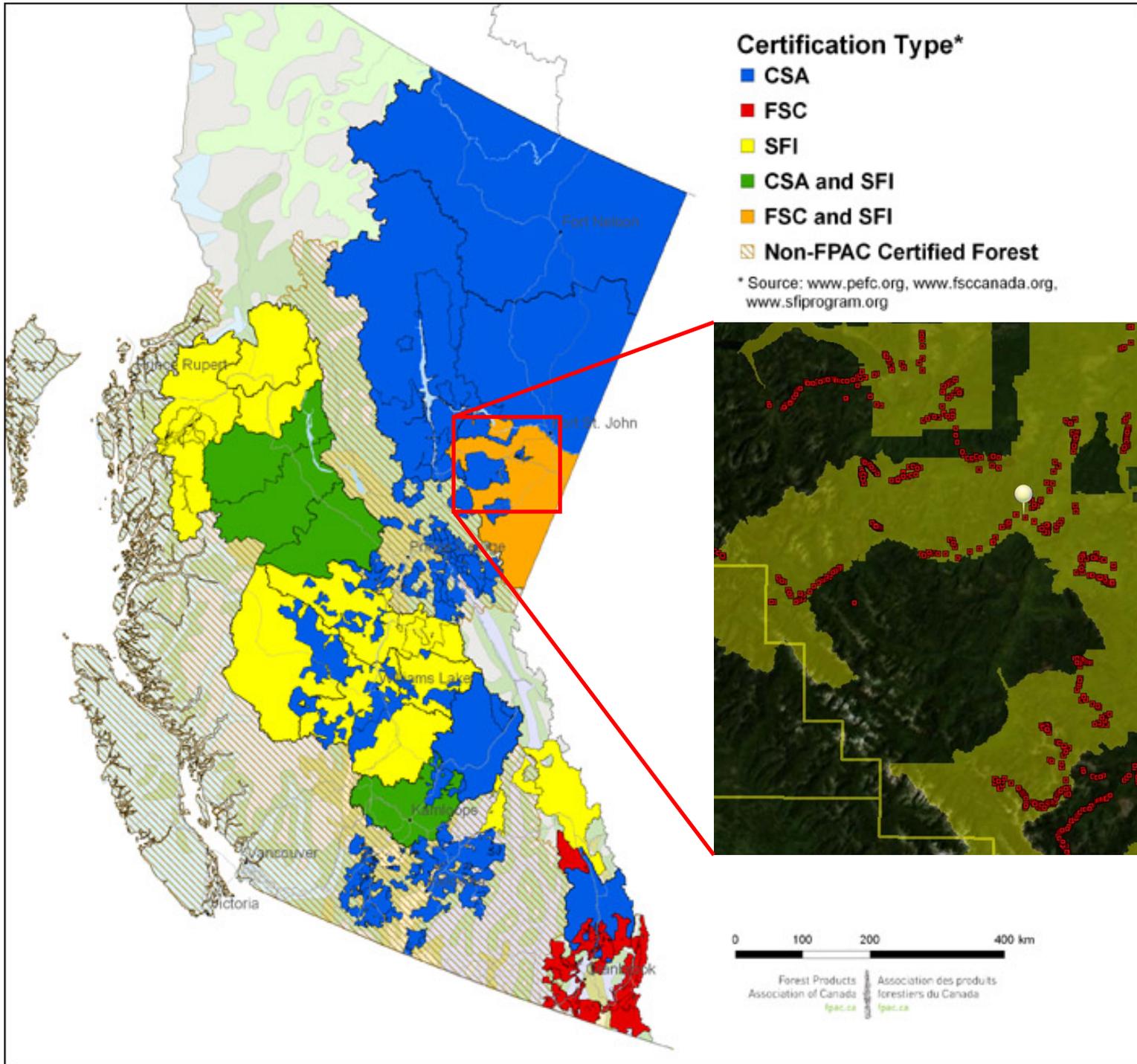
- CSA
- FSC
- SFI
- CSA and SFI
- FSC and SFI
- ▨ Non-FPAC Certified Forest



**Number of Point Counts**

- None
- 1-9
- 10-14
- 15+
- Not Surveyed

Updated: 08-SEP-2010





## Cost-effective partnership



- Return on SFI's investment: 10:1 cash
- Levered in-kind skilled volunteer contribution of ~\$750,000
- Additional in-kind levered thru' contributed datasets
- Outreach to program network underscoring SFI's support





## Next Phase – Q3-4, 2010



- **Providing complete species lists by 10km-square & detailed SAR data to participant companies:**
  - **BC: Louisiana Pacific, BC Timber Sales, West Fraser Mills**
  - **Manitoba: Louisiana Pacific**
  - **Nova Scotia: NewPage Port Hawkesbury, Abitibi-Bowater**
  - **New Brunswick: Acadian Timber**
  - **Quebec: Abitibi-Bowater, Norbord, Smurfit-Stone**





## How you can get involved



- Are you active in BC, MB, ON, QC or the Maritimes? If so, we'd like to talk to you!
- What are your information needs
- Opportunities to engage with more companies
  - Data-sharing
  - In-kind partnerships - logistical support to conduct Atlas surveys

