



Letter from scientists regarding the Boreal Forest

Dear Premier Charest,

In a letter sent in May 2007, 1,500 scientists from more than 50 countries around the world, including 71 from Quebec, asked Canadian government leaders to ensure the protection of at least 50% of Canada's Boreal forest. Since making this appeal, we have followed the progression of this file with keen interest.

We were delighted to hear, on November 15, 2008, the commitment that *"by 2015, [...] 50% of the area covered by the Plan Nord will be protected from industrial, mining and energy development."* This commitment was reiterated in March in your speech at Mont Saint-Bruno National Park announcing that Quebec had reached its objective of 8% protected areas. Your commitment deserves our public support; in protecting northern Quebec's natural environment and ensuring responsible development in the rest of the area, your government will set in motion one of the most ambitious sustainable development and nature conservation projects in North America, and one that could serve as a model for the rest of the world.

Scientists have already catalogued some of the natural resources that constitute the natural heritage of northern Quebec. In terms of wildlife, northern Quebec provides habitat for 340 million birds,ⁱ more than a million tundra caribou and some of the largest populations of freshwater fish in North America. However, the populations of some species are too low: the woodland caribou, the wolverine and the golden eagle are all on Quebec's threatened or vulnerable species lists. In terms of the region's ecological benefits to society, including water filtration and carbon storage, their value is estimated at 13.8 times the value of the natural resources extracted from it each year. ⁱⁱ

In addition to the considerable biodiversity of this region, climate change is a major concern that influences our vision for the conservation planning of northern Quebec. Every day, new factors indicate that environmental degradation is fundamentally affecting our natural heritage, and the reduction of industrial carbon emissions is a top priority. While it is tempting to rely on costly unproven technological solutions, a responsible and sustainable approach fits within our current frame of knowledge. Our Boreal ecosystems already efficiently store more carbon in their trees, soils and peat than any other environment. It is our responsibility to be the stewards of these vast northern carbon reserves. ⁱⁱⁱ

The field of conservation biology identifies four objectives that must be achieved to ensure the long-term viability of an ecosystem:

1. all native ecosystem types must be represented in protected areas;
2. populations of all native species must be maintained in natural patterns of abundance and distribution;
3. ecological processes such as hydrological processes must be maintained; and
4. the resilience to short-term and long-term environmental change must be maintained.

In the context of the Plan Nord, it is important that our conservation and development decisions be based on sound scientific data.

It is our firm hope that northern Quebec can be maintained intact for future generations, and that a planning process will ensure conservation while planning for future development in a manner that is consistent with those objectives. It will also be important to move quickly to identify areas that meet these criteria and that may be vulnerable to industrial development so that potential conflicts can be addressed and resolved.

We would urge you, Mr. Premier, to put this planning process in place quickly. We ask that this is done in a manner that fully engages the communities in these regions, especially Aboriginal peoples, whose knowledge, relationship and rights must be respected.

Finally, we feel certain that, in taking this action, Quebec will emerge as a world leader in sustainable development, biodiversity conservation and combating climate change, while creating a new ecosystem management model for the 21st century that will set the standard for countries around the world.

We, the undersigned scientists, encourage you to maintain your commitment to conserve at least 50% of the region north of the 49th parallel. We, in turn, promise to work with you and with the research organizations, Aboriginal people, local communities, various sector stakeholders, conservation groups and businesses of Quebec's Boreal region to bring about this vision.

Respectfully yours,

Canada

▪ *Quebec*

Ehab Abouheif, Ph.D.

Assistant Professor
McGill University

Alexis Achim, Ph.D.

Professeur adjoint
Université Laval

Dominique Arseneault, Ph.D.

Professeur
Université du Québec à
Rimouski

Hugo Asselin, Ph.D.

Professeur
Université du Québec en
Abitibi-Témiscamingue

Beatrix Beisner, Ph.D.

Professeure agrégée
Université du Québec à
Montréal

Simon Bélanger, Ph.D.

Professeur
Université du Québec à
Rimouski

Marc Bélisle, Ph.D.

Professeur
Université de Sherbrooke

Graham Bell, Ph.D.

Professeur
McGill University

**Dominique Berteaux,
Ph.D.**

Professeur
Université du Québec à
Rimouski

Michel Blackburn, Ph.D.

Professeur
Université Laval

Suzanne Brais, Ph.D.

Professeure
Université du Québec en
Abitibi-Témiscamingue

Jacques Brisson, Ph.D.

Professeur
Université de Montréal

Jacques Brodeur, Ph.D.

Professeur
Université de Montréal

Gilbert Cabana, Ph.D.

Professeur
Université du Québec à
Trois-Rivières

Sophie Calmé, Ph.D.

Professeure agrégée
Université de Sherbrooke

Vincent Carignan, Ph.D.

Biologiste
Private consultant

Alain Caron, Ph.D.

Professionnel de recherche
Université du Québec à
Rimouski

Jean Caron, Ph.D.

Professeur
Université Laval

Alain Cuerrier, Ph.D.

Ethnobotaniste
Université de Montréal,
Institut de recherche en
biologie végétale

Steve Cumming, Ph.D.

Professeur adjoint
Université Laval

Marcel Darveau, Ph.D.

Chef, rech. et conserv.
boréales / Professeur
associé
Canards Illimités Canada /
Université Laval

Sylvie de Blois, Ph.D.

Professeure agrégée
McGill University

Kramer Donald, Ph.D.

Professor
McGill University

France Dufresne, Ph.D.

Professeure
Université du Québec à
Rimouski

Gilbert Ethier, Ph.D.

Chercheur postdoctoral
Université Laval

Ian Ferguson, Ph.D.

Senior Lecturer
Concordia University

**Marco Festa-Bianchet,
Ph.D.**

Professeur
Université de Sherbrooke

Louise Filion, Ph.D.

Professeur
Université Laval

Jocelyn Forget, Ph.D.

Adjoint au premier cycle
Université de Montréal

François Fournier, Ph.D.

Biologiste
Service canadien de la faune

Valerie Fournier, Ph.D.

Professeure
Université Laval

Gregor Fussmann, Ph.D.

Associate Professor
McGill University

Dany Garant, Ph.D.

Professeur
Université de Sherbrooke

**Jean-François Giroux,
Ph.D.**

Professeur titulaire
Université du Québec à
Montréal

Elsa Goerig, Ph.D.

Géographe
Institut national de la
recherche scientifique -
Centre ETE

Mark Goldberg, Ph.D.

Professeur
Université McGill

Andrew Gonzalez, Ph.D.

Associate Professor
McGill University

David Green, Ph.D.

Professor
McGill University

**Irene Gregory-Eaves,
Ph.D.**

Assistant Professor
Dept. of Biology, McGill
University

Alexandre Guertin, Ph.D.

Étudiant
Université de Montréal

Frédéric Guichard, Ph.D.
Professeur
Université McGill

Andrew Hendry, Ph.D.
Associate Professor
McGill University

James Hodson, Ph.D.
Étudiant au doctorat
Université Laval

Louis Imbeau, Ph.D.
Professeur
Université du Québec en
Abitibi-Témiscamingue

Sylvain Jutras, Ph.D.
Chercheur postdoctoral
Institut national de la
recherche scientifique -
Centre ETE

Jacob Kalff, Ph.D.
Professor of
Biology(Emeritus)
McGill University

Martin Lavoie, Ph.D.
Professeur agrégé
Département de
géographie, Université Laval

Claude Lavoie, Ph.D.
Professeur titulaire
Université Laval

Martin Lechowicz, Ph.D.
Professor
Université McGill

Kara Lefevre, Ph.D.
Ecologist
Université Laval

Pierre Legendre, Ph.D.
O.Q., F.R.S.C., Professeur
Université de Montréal

Zoe Lindo, Ph.D.
Postdoctoral Fellow
McGill University

Yves Mauffette, Ph.D.
Doyen
Université du Québec à
Montréal

Marc Mazerolle, Ph.D.
Professeur associé
Université du Québec en
Abitibi-Témiscamingue

Eliot McIntire, Ph.D.
Professeur
Université Laval

Virginie Millien, Ph.D.
Assistant professor
Université McGill

Alison Munson, Ph.D.
Professeur
Université Laval

Judith Patterson, Ph.D.
Associate Professor
Concordia University

Serge Payette, Ph.D.
professeur
Université Laval

Peres-Neto Pedro, Ph.D.
Professeur
Université du Québec à
Montréal

Fanie Pelletier, Ph.D.
Professeure
Université de Sherbrooke

Steeve Pepin, Ph.D.
Professeur agrégé
Université Laval

Hervé Philippe, Ph.D.
Professeur titulaire
Université de Montréal

**Bernadette Pinel-Alloul,
Ph.D.**
Professeure titulaire
Université de Montréal

David Pothier, Ph.D.
Professeur
Université Laval

Monique Poulin, Ph.D.
Professeure
Université Laval

Anthony Ricciardi, Ph.D.
Associate Professor
McGill University

Line Rochefort, Ph.D.
Professeur
Université Laval

Nigel Roulet, Ph.D.
Professor
McGill University

Richard Roy, Ph.D.
Professor
McGill University

Claude Samson, Ph.D.
Scientifique des
écosystèmes
Parcs Canada

Guy Samson, Ph.D.
Professeur
Université du Québec à
Trois-Rivières

**Émilie Saulnier-Talbot,
Ph.D.**
Stagiaire Postdoctorale
Université McGill

Jade Savage, Ph.D.
Professor
Bishop's University

Anouk Simard, Ph.D.
Biologiste
Université Laval

**Martin-Hugues St-
Laurent, Ph.D.**
Professeur en écologie
animale
Université du Québec à
Rimouski

Jerome Theau, Ph.D.

Professeur adjoint
Université de Sherbrooke

Daniel Toussaint, Ph.D.

Biologiste
Unaffiliated

Yves Turcotte, Ph.D.

Enseignant
Cégep de La Pocatière

Robert van Hulst, Ph.D.

Professor
Bishop's University

**Marie-Hélène
Vandersmissen, Ph.D.**

Professeure agrégée
Université Laval

François Vézina, Ph.D.

Professeur
Université du Québec à
Rimouski

Marcia Waterway, Ph.D.

Associate Professor
McGill University

Terry Wheeler, Ph.D.

Associate Professor
McGill University

Paul Widden, Ph.D.

Associate Professor (Retired)
Concordia University

Benoît Audet

Biologiste M.Sc.
Environnement Canada

Ali Bergeron-Caron

Étudiante au Baccalauréat
en Écologie
Université de Sherbrooke

Christian Besnier

Biologiste Forestier
RÉgénérans Vert l'Avenir

Andréanne Blais

Biologiste
Conseil régional de

l'environnement du Centre-
du-Québec

Laura Boisvert-Marsh

Research Assistant
Université McGill

Stéphanie Boudreau

Professionnelle de recherche
Université Laval

Marilou Brouillet

Étudiante
Université de Sherbrooke

Roger Bull

DNA Lab Coordinator
Canadian Museum of Nature

Édith Cadieux

Chargée de projets
Nature Québec

Olivier Cameron Trudel

Étudiante
Université de Sherbrooke

Dominic Chambers

Étudiant Maîtrise
McGill University

Louise Champoux

Écotoxicologiste
Environnement Canada

Dominic Cloutier

Étudiante
Université de Sherbrooke

Amélie Collard

Biologiste
Agence forestière des Bois-
Francs

Josiane Côté

Étudiante
Université de Sherbrooke

Geneviève Courchesne

Étudiante MSc. Biologie
Université Laval et Canards
Illimités Canada

Amélie D'Astous

Étudiante à la maîtrise en
Biologie Végétale
Université Laval

Marie Luce de Courval

Student
Université de Montréal

**Noémie Desbiens
Riendeau**

Future agronome
Université McGill

Nicolas Deshaies

Student
Concordia University

Gérard Desjardins

Président
Club des ornithologues de
l'Outaouais

Mélanie Desrochers

Géographe, Professionnelle
de recherche
Centre d'étude de la forêt

Loïc D'Orangeville

Étudiante M.Sc.
Université McGill

Catherine Emond

Undergrad
Université Laval

Dominique Fauteux

Candidat M. Sc. en biologie
Université du Québec en
Abitibi-Témiscamingue

Gabriel Fortin

Étudiant
Université du Québec à
Rimouski

Hermann Frouin

Candidat M. Sc. en biologie
Université Laval

Edeline Gagnon

Student
McGill University

Chantal Gagnon

Student
McGill University

Vincent Gagnon

M.Sc. candidate
Université de Montreal

Pamela Garcia Cournoyer

Étudiante à la maîtrise en
foresterie
Université Laval

Benoit Gascon

Biologiste
Université de Sherbrooke

Sylvain Giguère

M. Env.
Unaffiliated

Kiyoko Gotanda

M.Sc. candidate
McGill University

Ellie Goud

Student
McGill University

Virginie Grégoire

Étudiante
McGill University

Sandrine Hogue-Hugron

Étudiante M.Sc.
Université Laval

Geneviève Huchette

Diplômée en agronomie
SOS Levasseur

John Husk

Technicien
BlueLeaf Inc.

Natalie James

Étudiante à la maîtrise
McGill University et Canards
Illimités Canada

Molly Krishtalka

Student
McGill University

Julie Labbé

Étudiante à la maîtrise en
biologie
Université du Québec en
Abitibi-Témiscamingue et
Canards Illimités Canada

Benoit Lafleur

Étudiant au Ph.D.
Université du Québec en
Abitibi-Témiscamingue

Derrick Lai

Ph.D. Candidate
McGill University

Elise Larivière

Étudiante M.SC.
Université Laval

Alayn Larouche

Paleobotanist
Université de Montréal

Stefanie LaZerte

Student
McGill University

Marie-Claire LeBlanc

Géographe, M. ATDR
Canards Illimités Canada

Patrick Leighton

Doctoral Candidate
McGill University

Jerome Lemaitre

Étudiant Ph.D. Biologie
Université Laval

Marie-Pier Lepage

Étudiante
Université de Montréal

David Lévesque

Étudiante
Université de Sherbrooke

Gabriel Maltais-Landry

Agent de recherche
Université de Montréal

Ariane Massé

Étudiante au doctorat
Université Laval

Geneviève Meunier

Géographe, M. ATDR
Canards Illimités Canada

Julie Naud

M.Sc. Biologie
Université Laval

David Nourry

Biologiste
Groupe Synergis

James Nowak

Ph.D. Student
Université Laval

**Marie-Hélène Ouellet
D'Amours**

candidate MSc
Université du Québec en
Abitibi-Témiscamingue

Etienne Paradis

Étudiant Ph.D. (biologiste)
Université Laval

Rosalie Parent

Étudiante
Université de Sherbrooke

Éric Perreault

chargé de projets
Conseil régional de
l'environnement du Centre-
du-Québec

Sabrina Plante

Étudiante graduée
Université de Sherbrooke

Cathleen Poehler

Translator
McGill University

Carina Poulin

B.Sc. Écologie
Université de Sherbrooke

Léo Provencher

Enseignant
Université de Sherbrooke

Pierre Racine

Professionnel de recherche
Université Laval

Anita Rogic

Student
McGill University

Christian Roy

Étudiant Ph.D.
Université Laval

Daniel Sigouin

Écologiste de parc
Parcs Canada

Charles St-Pierre

Technicien
Unaffiliated

Sophie Taddeo

Étudiante
McGill University

Maryse Tanguay

Enseignante
Cegep de l'outaouais

Marie-Eve Tousignant

Biologiste, M.Sc.
Unaffiliated

Katrine Turgeon

Ph.D. candidate
McGill University

Josiane Vaillancourt

Researcher
Agriculture et
Agroalimentaire Canada

Pascal Viens

Étudiant à la Maîtrise
Université de Sherbrooke

Annabelle Warren

Biologiste et étudiante à la
maîtrise en sciences
Institut national de la

recherche scientifique -
Centre ETE

Jonathan Whiteley

Ph.D. candidate
Université McGill

Gi-Mick Wu

Étudiante M.Sc.
Université McGill

▪ Alberta**Erin Bayne, Ph.D.**

Assistant Professor
University of Alberta

Ralph Cartar, Ph.D.

Associate Professor
University of Calgary

Åsa Fahlman, Ph.D.

Research Scientist
University of Calgary

Andrew Hurly, Ph.D.

Professor
University of Lethbridge

Christine Michell, Ph.D.

Research Associate - Biology
University of Lethbridge

Ann-Lise Norman, Ph.D.

Director
The University of Calgary

David Schindler, Ph.D.

Killam Memorial Professor of
Ecology
University of Alberta

Raymond J. Turner, Ph.D.

Professor
University of Calgary

Rene Martin

Biologist
Unaffiliated

Gary Stewart

Retired, Ducks Unlimited
Canada
Manager Boreal Operations

▪ British Columbia**David Clements, Ph.D.**

Professor
Trinity Western University

Keith Egger, Ph.D.

Professor
University of Northern BC

Faisal Moola, Ph.D.

Director, Terrestrial
Conservation and Science
Program
David Suzuki Foundation;
Adjunct Professor, Faculty
of Forestry, University of
Toronto

Robin Naidoo, Ph.D.

Adjunct Professor
University of Alberta

Dolph Schluter, Ph.D.

Professor
University of British
Columbia

Suzanne Simard, Ph.D.

Professor
University of British
Columbia

Nancy Turner, Ph.D.

Distinguished Professor
University of Victoria

Andrew Weaver, Ph.D.

Professor
School of Earth and Ocean
Sciences

Véronique Connolly

Biologist
Canadian Wildlife Service

Pete Davidson

Program Manager
Bird Studies Canada

Christopher Di Corrado

Biologist
Bird Studies Canada

Thiago Silva
Ph.D. Candidate
University of Victoria

- **Manitoba**

Pascal Badiou, Ph.D.
Research Scientist
Ducks Unlimited Canada,
Institute for Wetland and
Waterfowl Research

- **New Brunswick**

Diana Hamilton, Ph.D.
Assistant Professor
Mount Allison University

Marc-André Villard, Ph.D.
Professeur titulaire
Chaire de recherche du
Canada en conservation des
paysages

- **Newfoundland and
Labrador**

Rita Anderson, Ph.D.
Associate Professor
Memorial University

Michael Collins, Ph.D.
Professor
Memorial University

John Gibson, Ph.D.
Biologist
Natural History Society of
Newfoundland and Labrador

Luise Hermanutz, Ph.D.
Associate Professor, Biology
Memorial University

John Jacobs, Ph.D.
Professor
Memorial University

Adrian Tanner, Ph.D.
Honorary Research Professor
Memorial University

- **Northwest
Territories**

Alasdair Veitch
Certified Wildlife Biologist
(The Wildlife Society)
Unaffiliated

- **Nova Scotia**

**W. Hardy Ershbaugh,
Ph.D.**
Biologist
Saint Mary's River
Association

Mark Gloutney, Ph.D.
Manager Science Programs
Ducks Unlimited Canada

Andrew G. Horn, Ph.D.
Research Associate
Dalhousie University

Ron Russell, Ph.D.
Associate Professor
Saint Mary's University

Dave Shutler, Ph.D.
Professor
Acadia University

Cindy Staicer, Ph.D.
Assistant Professor of
Biology
Dalhousie University

Randy Lauff
Part-time Faculty
St. Francis Xavier University

Julie van der Hoop
Student
Dalhousie University

- **Ontario**

**Patricia Ballamingie,
Ph.D.**
Assistant Professor
Carleton University

Luca Borger, Ph.D.
Stagiaire postdoctoral
University of Guelph

Alice Boyle, Ph.D.
Postdoctoral Research
Scientist
University of Western
Ontario

David Charlton, Ph.D.
Senior Ecologist
Unaffiliated

Kim Cuddington, Ph.D.
Assistant Professor
University of Waterloo

Christian Detellier, Ph.D.
Professor
Université d'Ottawa

Ronnie Drever, Ph.D.
Forest Ecologist
The Nature Conservancy

Marie-Josée Fortin, Ph.D.
Professor
University of Toronto

John Gerrath, Ph.D.
Biologist
Nature Conservancy of
Canada

Fiona Hunter, Ph.D.
Professor
Brock University

Jeremy Kerr, Ph.D.
Professor of Biology
University of Ottawa

Doug King, Ph.D.
Professor
Geography, Carleton
University

Gita Laidler, Ph.D.
Assistant Professor
Dept of Geography and Env
Studies, Carleton University

Bruce LaZerte, Ph.D.
Retired
Unaffiliated

Denis Lepage, Ph.D.
Chercheur Sénior
Études d'Oiseaux Canada

Jay Malcolm, Ph.D.
Associate Professor
University of Toronto

Harry McCaughey, Ph.D.
Professor
Dept. of Geography

Scott Mitchell, Ph.D.
Assistant Professor
Carleton University

James Schaefer, Ph.D.
Professor
Trent University

Stephanie Sobek, Ph.D.
Postdoctoral research
scientist
University of Western
Ontario

Rachel Vallender, Ph.D.
Conservation Geneticist
Cornell University

Matthew Carlson
Ecologist
Canadian Boreal Initiative

Jessica Forrest
Ph.D. Candidate
University of Toronto

Marie-Hélène Fraser
Biologiste
Unaffiliated

Lauren Hooton
M.Sc. Candidate
University of Western
Ontario

Sara Hsiao
MSc
University of Toronto

Maggie MacPherson
Student
York University

Julie Robinson
Consulting Biologist
Memorial University

Al Sandilands
Senior Ecologist
Gray Owl Environmental Inc.

Calandra Stanley
Graduate Student
York University

Roland Wilhelm
Student
McGill University

- **Prince Edward Island**

Joshua Mailhiot
Biologist
Department of Fisheries and
Oceans

Other Countries

- **Argentina**

Victor Cueto, Ph.D.
Doctor in Biological Science
Universidad de Buenos Aires

Javier Lopez de Casenave, Ph.D.
Research Scientist
Universidad de Buenos Aires

- **Australia**

Sandra Berry, Ph.D.
Biologist
Australian National
University

Corey Bradshaw, Ph.D.
Associate Professor
University of Adelaide

Don Driscoll, Ph.D.
Research Fellow

Fenner School of
Environment and Society

Brendan Mackey, Ph.D.
Professor
The Australian National
University

- **Belgium**

Koen Sabbe, Ph.D.
Professor
Ghent University

- **Colombia**

Marisol Amaya Márquez, Ph.D.
Ph.D. in biology
Universidad Nacional de
Colombia

Pablo Stevenson, Ph.D.
Associate professor
Universidad de Los Andes

- **Costa Rica**

Susan Letcher, Ph.D.
Resident professor
Organization for Tropical
Studies

- **Denmark**

Thomas Pape, Ph.D.
Head of Entomology
Zoological Museum

Kaj Sand-Jensen, Ph.D.
Professor
University of Copenhagen,
Denmark

Birgith Sloth, Ph.D.
Biologist
Unaffiliated

- **Dominican Republic**

Simon Guerrero
Ornithologist
Society for the Conservation

and Study of Caribbean
Birds

Sixto Inchaustegui

Biologist
Grupo Jaragua

- **Finland**

Raimo Virkkala, Ph.D.

Professor
Finnish Environment
Institute

- **France**

Arnaud Béchet, Ph.D.

Research Scientist
Tour du Valat research
center

Pierre Jouventin, Ph.D.

Directeur de recherche
Centre national de la
recherche scientifique
(CEFE)

Marcel Lambrechts, Ph.D.

Directeur de recherche
Centre national de la
recherche scientifique
(CEFE, UMR5175)

Barbara Livoreil, Ph.D.

Scientific officer
Centre for Research and
Conservation of Chelonians
(SOPTOM)

Maryline Pioz, Ph.D.

Biologist
Unaffiliated

Piotr Tucholka, Ph.D.

Professeur
Université Paris Sud - UMR
CNRS 8148 IDES

Alina Tudryn, Ph.D.

MdC
Université Paris Sud - UMR
8148 IDES

Gaël Monvoisin

Ingénieur
Centre national de la
recherche scientifique

Daniel Philippe

Biologist
Unaffiliated

- **Germany**

Tobias Gebauer, Ph.D.

Research Scientist
Georg-August-University of
Goettingen, Dep. of Plant
Ecology

Juan Masello, Ph.D.

Research Scientist
Max Planck Institute for
Ornithology

Petra Quillfeldt, Ph.D.

Research Scientist
Max Planck Institute for
Ornithology

Stefan Schmidt, Ph.D.

Zoologist
Zoologische
Staatssammlung München

- **Greece**

Peristera Kourakli

Forester, M.Sc.; Phd
student,
Hellenic Ornithological
Society

- **India**

Shankar Raman, Ph.D.

Biologist
Nature Conservation
Foundation

Ashwin Naidu

Graduate Research Assistant
University of Arizona

Rajeev Pillay

Research Affiliate

Nature Conservation
Foundation

- **Israel**

**Linda Olsvig-Whittaker,
Ph.D.**

Biologist
Israel Nature and Parks
Authority

- **Jamaica**

Catherine Levy

Biologist
Neotropical birds

- **Latvia**

Ainars Aunins

Biologist
Latvian Fund for Nature

- **Lithuania**

**Liutauras Raudonikis,
Ph.D.**

Research Scientist
Institute of Ecology

Tomas Virbickas, Ph.D.

Research Scientist
Unaffiliated

- **Mexico**

Sergio Guerrero, Ph.D.

Biologist
Universidad de Guadalajara

- **Netherlands
Antilles**

Adolphe Debrot, Ph.D.

Director
Carmabi Ecological Institute

John DeFreitas

Biologist
Carmabi Ecological Institute

Eric Newton

Biologist

CITES Management
Authority

Chris Schmitz

Biologist
Carmabi Ecological Institute

- ***New Caledonia***

Jörn Theuerkauf, Ph.D.

Research Scientist
Polish Academy of Sciences

- ***New Zealand***

Gerard Closs, Ph.D.

Professor
University of Otago

- ***Norway***

Sigmund Hågvar, Ph.D.

Professor
University of Life Sciences

Manuel Hidalgo, Ph.D.

Researcher
University of Oslo

Olav Hjeljord, Ph.D.

Professor
Norwegian University of life
sciences

Anders Nielsen, Ph.D.

Research Scientist
Centre for Ecological and
Evolutionary Synthesis

Andres Ordiz, Ph.D.

Ph.D. student. Biologist
Department of Ecology and
Natural Resource
Management

Ole-Gunnar Støen, Ph.D.

Researcher
Norwegian University of Life
Sciences

Per Wegge, Ph.D.

Professor
Norwegian University of Life
Sciences

Susan Jojola

Ph.D. Fellow
Scandinavian Brown Bear
Research Project

- ***Peru***

Víctor Pacheco, Ph.D.

Jefe Dpto. Mastozoología
Universidad San Marcos

Constantino Aucca

Biologist
Asociacion Ecosistemas
Andinos - ECOAN

- ***Poland***

Adam Boratynski, Ph.D.

Professor
Polish Academy of Sciences

Elzbieta Dumnicka, Ph.D.

Associate Professor
Institute of Nature
Conservation, Polish
Academy of Sciences

Andrzej Dyrzcz, Ph.D.

Professor
University of Wroclaw

Tadeusz Fleituch, Ph.D.

Senior Researcher
Polish Academy of Science -
Cracow

Marta Maziarz, Ph.D.

Ornithologist
Department of Avian Ecology

Leon Mejnartowicz, Ph.D.

Professor
Institute of Dendrology
Polish Academy of Science

Jacek Radwan, Ph.D.

Professor
Jagiellonian University

Nuria Selva, Ph.D.

Research Scientist
Institute of Nature

Conservation, Polish
Academy of Sciences

Roman Zurek, Ph.D.

Research Scientist
Institute of Nature
Conservation, Polish
Academy of Sciences

- ***Portugal***

Christoph Meyer, Ph.D.

Researcher
Center for Environmental
Biology, University of Lisbon

- ***Spain***

Francisco Suarez, Ph.D.

Professor
UAM

Dragos George Zaharescu

Ph.D. Candidate
Animal Anatomy Lab, Vigo
University

- ***Sweden***

Mats Dynesius, Ph.D.

Assistant Professor
Umeaa University

Peter Hambäck, Ph.D.

Professor
Stockholm University

Mats Jansson, Ph.D.

Professor
Umeå University

Anders Jonsson, Ph.D.

Ecologist
Dept. Ecology and
Environmental Science

Micael Jonsson, Ph.D.

Research Scientist
Swedish University of
Agricultural Sciences

Leif Kullman, Ph.D.

Professor
Umeå University

Urban Olsson, Ph.D.
Associate professor
University of Gothenburg

Tobias Vrede, Ph.D.
Research Scientist
Umeå University

▪ **Switzerland**

Daniel Cherix, Ph.D.
Professor
University of Lausanne

▪ **United Kingdom**

Ian Burfield, Ph.D.
Ornithologist
BirdLife International

Sarah Eglinton, Ph.D.
Ornithologist
British Trust for Ornithology

John Fanshawe, Ph.D.
Senior Director
BirdLife International

Andrew Gosler, Ph.D.
University Research Lecturer
Oxford University
Department of Zoology

Mark Rehfisch, Ph.D.
Ornithologist
British Trust for Ornithology

Navinder Singh, Ph.D.
Research Scientist
Imperial College London

Jeff Baker
Ornithologist
British Trust for Ornithology

Kerry Skelhorn
Biologist
Unaffiliated

▪ **United States**

Victoria Apsit, Ph.D.
Research Scientist

University of Massachusetts
Boston

Todd Arnold, Ph.D.
Associate Professor
University of Minnesota

Volker Bahn, Ph.D.
Assistant Professor
Wright State University

William Baker, Ph.D.
Professor
University of Wyoming

Bruce Baldwin, Ph.D.
Professor and Curator
Dept of Integrative Biology /
Jepson Herbaria

Robert Baldwin, Ph.D.
Assistant Professor
Clemson University

John Barclay, Ph.D.
Associate Professor &
Director
Wildlife Research Center/U.
of CT

David Bonter, Ph.D.
Ornithologist
Cornell Lab of Ornithology

Marylene Boulet, Ph.D.
Stagiaire Postdoctorale
Duke University

Brad Boyle, Ph.D.
Research Associate
University of Arizona

Stephen Brown, Ph.D.
Director of Shorebird
Science
Manomet Center for
Conservation Sciences

Aram Calhoun, Ph.D.
Associate Professor
University of Maine

Lesley Campbell, Ph.D.
Huxley Fellow in Evolution

Rice University, Dept. of
Ecology and Evolutionary
Biology

Toby Carlson, Ph.D.
Professor
The Pennsylvania State
University

Anna Carlson, Ph.D.
Adjunct Faculty
California Lutheran
University

Nanette Chadwick, Ph.D.
Associate Professor
Auburn University

F. Stuart Chapin, Ph.D.
Professor
University of Alaska
Fairbanks

Gabriela Chavarria, Ph.D.
Director, Science Center
Natural Resources Defense
Council

David Coleman, Ph.D.
Research Professor
University of Georgia

John Coluccy, Ph.D.
Biologist
Ducks Unlimited

John Cornely, Ph.D.
Executive Director
The Trumpeter Swan Society

**David Courtemanch,
Ph.D.**
Biologist
Unaffiliated

Robert Curry, Ph.D.
Professor
Villanova University

Noel Cutright, Ph.D.
Ornithologist
Riveredge Bird Club

Jan Decher, Ph.D.

Zoologist
University of Vermont

Adrian Delnevo, Ph.D.

Biologist
AES Inc. / California State
University Long Beach, USA

Kristian Demary, Ph.D.

Professor
Fitchburg State College

David Dobkin, Ph.D.

Executive Director
High Desert Ecological
Research Institute

C Kenneth Dodd Jr, Ph.D.

Courtesy Associate Professor
University of Florida

Frank Drummond, Ph.D.

professor
University of Maine

Arthur Dunham, Ph.D.

Professor of Biology
University of Pennsylvania

Perri Eason, Ph.D.

Professor
University of Louisville

Susan Elbin, Ph.D.

Director of Conservation
New York City Audubon

Frank Etensohn, Ph.D.

Professor, Director
University of Kentucky

Christopher Filardi, Ph.D.

Biodiversity Scientist
American Museum of Natural
History

Ola Fincke, Ph.D.

Professor
University of Oklahoma

David Foster, Ph.D.

Director
Harvard University

William Fraser, Ph.D.

President
Polar Oceans Research
Group

Alan Fryar, Ph.D.

Associate Professor
University of Kentucky

Thomas Gavin, Ph.D.

Professor Emeritus
Cornell University

Thomas Gillepsie, Ph.D.

Professor
UCLA

Scott Goetz, Ph.D.

Senior Scientist
Woods Hole Research Center

Gus Goodwin, Ph.D.

Scientist
The Nature Conservancy

Linda Graham, Ph.D.

Professor
University of Wisconsin

Jon S Greenlaw, Ph.D.

Professor (retired)
Retired Professor

Charles Hall, Ph.D.

Professor
SUNY ESF

Sarah Hamman, Ph.D.

Restoration Ecologist
The Nature Conservancy

Kristina Hannam, Ph.D.

Assoc. Prof - Biology
SUNY-Geneseo

David Haskell, Ph.D.

Professor of Biology
University of the South

Floyd Hayes, Ph.D.

Professor of Biology
Pacific Union College

Robert Hoffman, Ph.D.

Director
Ducks Unlimited, Inc.

Kent Holsinger, Ph.D.

Professor of Biology
University of Connecticut

Richard Horan, Ph.D.

Professor
Michigan State University

Henry Huntington, Ph.D.

Science Director
Arctic Program, Pew
Environmental Group

Stephen Jackson, Ph.D.

Professor and Director,
Ecology Program
University of Wyoming

Elizabeth Jakob, Ph.D.

Professor
University of Massachusetts
Amherst

Todd Katzner, Ph.D.

Director of Conservation and
Field Research
National Aviary

Richard Keating, Ph.D.

Research Associate
Missouri Botanical Garden

Walter Koenig, Ph.D.

Senior Scientist
Cornell University

James Krupa, Ph.D.

Professor of biology
Univ. Kentucky

Sunil Kumar, Ph.D.

Research Scientist
Colorado State University

Loren Launen, Ph.D.

Assistant Professor
Keene State College

Dennis Lavrov, Ph.D.
Assistant Professor
Iowa State University

Daniel Leger, Ph.D.
Professor
University of Nebraska

Simon Levin, Ph.D.
Professor
Princeton University

William Loftus, Ph.D.
Chief executive officer
Aquatic Research &
Communication

Matthew Luck, Ph.D.
Postdoctoral Research
Fellow/Trainee
University of Vermont

Catherine McGlynn, Ph.D.
Biologist
Cornell University

James Megonigal, Ph.D.
Affiliate Professor
George Mason University

Vicky Meretsky, Ph.D.
Associate Professor
Indiana University

Myron Mitchell, Ph.D.
Distinguished Professor
SUNY-ESF

David Mizrahi, Ph.D.
Vice-president
New Jersey Audubon Society

Allan Mueller, Ph.D.
Conservation Chair
Arkansas Audubon Society

John Mull, Ph.D.
Professor of Zoology
Weber State University

Gerald Niemi, Ph.D.
Professor
University of Minnesota

Daniel Niven, Ph.D.
Senior Scientist - Bird
Conservation
National Audubon Society &
INHS

Robert Norton, Ph.D.
Ornithologist
EPIC

Reed Noss, Ph.D.
Davis-Shine Professor of
Conservation Biology
University of Central Florida

Gordon Orians, Ph.D.
Professor Emeritus
University of Washington

David Pashley, Ph.D.
Ornithologist
American Bird Conservancy

Dennis Paulson, Ph.D.
Director Emeritus
Slater Museum of Natural
History

Stuart Pimm, Ph.D.
Doris Duke Professor of
Conservation Ecology
Duke University

Raina Plowright, Ph.D.
Biologist
Penn State University

Ayesha Prasad, Ph.D.
Research Scientist
State University of New York
- College of Env Sc and
Forestry

J.C. Randolph, Ph.D.
Professor and Director
Indiana University

Peter Raven, Ph.D.
President
Missouri Botanical Garden

Jennifer Rehage, Ph.D.
Assistant professor

Florida International
University

Frederic Reid, Ph.D.
Director of Conservation
Planning
Ducks Unlimited

Chantal Reid, Ph.D.
Assistant Professor
Duke University

Rosalind Renfrew, Ph.D.
Conservation Biologist
Vermont Center for
Ecostudies

Dina Roberts, Ph.D.
Conservation Biologist
International Boreal
Conservation Campaign

Terry Root, Ph.D.
Senior Fellow/Univ Faculty
Stanford University

Jon Rosales, Ph.D.
Assistant Professor
St. Lawrence University

Rudolph Rosen, Ph.D.
Director
Ducks Unlimited

John Rowden, Ph.D.
Manager, Citizen Science
New York City Audubon

Nicoletta Sacchi, Ph.D.
Professor
Roswell Park Cancer
Institute

Eric Sanderson, Ph.D.
Senior Conservation
Ecologist
Wildlife Conservation Society

Johan Schijf, Ph.D.
Assistant Professor
UMCES/Chesapeake
Biological Laboratory

Carl Schlichting, Ph.D.

Professor
Ecology & Evolutionary
Biology

JP Schmidt, Ph.D.

Research Scientist
University of Georgia

William Sharpe, Ph.D.

Professor Emeritus of Forest
Hydrology
The Pennsylvania State
University

Richard Shefferson, Ph.D.

Assistant professor
University of Georgia

Thomas Sherry, Ph.D.

Professor
Tulane University

Jeffrey Short, Ph.D.

Pacific Science Director
Oceana

Ellen Simms, Ph.D.

Professor
Univ. California, Berkeley

Stephanie Spehar, Ph.D.

Assistant Professor of
Anthropology
University of Wisconsin-
Oshkosh

Iain Stenhouse, Ph.D.

Senior Scientist - Important
Bird Areas Program
National Audubon Society

Michael Swift, Ph.D.

Assistant Professor
St. Olaf College

Stephen Talbot, Ph.D.

Botanist
U.S. Fish and Wildlife
Service

Ronald Wakimoto, Ph.D.

Professor & Chair,

Ecosystem and Conservation
Sciences
College of Forestry and
Conservation

Doris Watt, Ph.D.

Professor
Saint Mary's College

Xiangyue Wei, Ph.D.

Conservation Planner
Ducks Unlimited

Jeff Wells, Ph.D.

Senior Scientist
Campagne internationale
pour la conservation boréale

Richard Werner, Ph.D.

Research Entomologist
US Forest Service

Nathaniel T.

Wheelwright, Ph.D.
Bass Professor of Natural
Sciences
Bowdoin College

John Wiens, Ph.D.

Associate Professor
Stony Brook University

David Wilcove, Ph.D.

Professor of Ecology,
Evolutionary Biology, and
Public Affairs
Princeton University

Norris Williams, Ph.D.

Curator
University of Florida

Herb Wilson, Ph.D.

Professor of Biology
Colby College

Matthew Adams

Bio Aide
Pennsylvania Game
Commission

Barbara S. Arter

Watershed Science Planner

BSA Environmental
Consulting

Karen Beckenbach

Biologist
Unaffiliated

Lewis Blake

Student
College of William and Mary

Eben Broadbent

Ph.D. Candidate
Stanford University

Brian Brost

Graduate Assistance
Northern Arizona University

John Cecil

Director, Important Bird
Areas Program
National Audubon Society

Kay Charter

Executive Director
Saving Birds Thru Habitat

Amy Cilimburg

Director of Bird Conservation
Montana Audubon

Donnie Dann

Past President
Bird Conservation Network

Kristin Davis

Biologist
National Institutes of Health

Thomas Dodson

M.S. Candidate
Ohio University

Steve Faccio

Conservation Biologist
Vermont Center for
Ecostudies

Laura Farrell

Ph.D. student
University of Vermont

Jacque Franzen

Self-Employed
BIRDS

Mark Gadlage

Graduate student
Vanderbilt University

Michael Gajdeczka

Student
University of Florida

James P. Gibbs

Professor
State University of New York
College of Environmental
Science and Forestry

Alison Holloran

Deputy Executive Director,
Audubon Wyoming
Audubon

Duane Howe

DVM
Retired wildlife biologist

Eduardo Inigo-Elias

Sr. Research Associate
Cornell University Lab of
Ornithology

Daniel Johnson

Assistant Instructor
Indiana University

Ehsan Kayal

Ph.D. Student
Iowa State University

Pat Knight

Chief Operations Officer
Songbirds of Northern
Indiana, Inc.

Katherine Koch

Wildlife Biologist
Unaffiliated

Amanda Kuenzi

Biologist
Unaffiliated

Matthew Lau

Ph.D. Student
Northern Arizona University

Daniel Lebbin

Ph.D. Candidate
Cornell University

Neahga Leonard

M.S. Candidate
University of Vermont

Steven Liptay

Assistant Director
Coastal Bird Conservation
Program

Katharine Mason

Student
Oregon State University

Steve Matsuoka

Wildlife Biologist
U.S. Fish and Wildlife
Service

Ruth McDowell

Ph.D. student
University of Alabama at
Birmingham

Kent McFarland
Senior Research Biologist
Vermont Center for
Ecostudies

Nicole Michel

Ph.D. Candidate
Dept. of Ecology &
Evolutionary Biology, Tulane
University

John Mickelson

Landscape ecologist
Geospatial & Ecological
Services

Tricia Miller

Ph.D. student
The Pennsylvania State
University

Marija Minic

Conservation Biologist
Unaffiliated

Steven Mlodinow

MD
Puget Sound Bird
Observatory

Charles Muise

Coordinator
Georgia Important Bird
Areas Program

Lars Pomara

Ph.D. candidate
University of Texas

Marcus Ricci

Biologist
Unaffiliated

Terrell Rich

Partners in Flight National
Coordinator
Partners in Flight

Christopher Rimmer

Director
Vermont Center for
Ecostudies

Joshua Royte

Biologist
The Nature Conservancy

Michael Scisco

Proprietor
BioGeoCreations

Adam Sedgley

Science Associate
Seattle Audubon

Jay Sexton

Research Technician
Oregon State University

Dan Silver

Executive Director
Endangered Habitats League

Michael Sitvarin

Graduate student
Miami University

Caroline Stahala

Ph.D. Candidate
Florida State University

Lauren Stamatis

Biologist
University of Vermont

John Sterling

Senior Wildlife Biologist
formerly Smithsonian
Migratory Bird Center

Bill Stewart

Conservation Chair
Delmarva Ornithological
Society

Eric Stiles

Vice President for
Conservation
New Jersey Audubon Society

Brian Tavernia

Graduate Student
Tufts University

Sheila Ward

Biologist
Unaffiliated

Orion Weldon

Ph.D. Candidate
Rutgers University

Kirsten Wert

Biology Graduate Student
University of South Dakota

Megan Whitman

Extension Support Specialist
II
Cornell Lab of Ornithology

Alan Williams

Ecologist
Unaffiliated

Ron Windingstad

Coordinator Audubon at
Home
Audubon Minnesota

Eve Witten

Director, Boreal Forest
Program
The Nature Conservancy

Stefan Woltmann

Ph.D. Candidate
Tulane University

Christopher Wood

eBird Project Leader
Cornell Lab of Ornithology,
Cornell University

Jeff Woodman

Conservationist
Unaffiliated

Hope Woodward

Conservation Biologist
Williams Willand Consulting,
Inc

Harry Yamalis

Environmental Analyst
CT Department of
Environmental Protection

Ric Zarwell

Ornithologist
Mississippi Explorer Cruises

Margo Zdravkovic

Director
Coastal Bird Conservation
Program

Gina Zimmerman

Research ecologist and
coordinator
Avian Research and
Conservation Institute

i Unpublished estimates of the Partners in Flight Program.

ii M. Anielski and S. Wilson, 2009. Counting Canada's Natural Capital: Assessing the Real Value of Canada's Boreal Ecosystems, Canadian Boreal Initiative and The Pembina Institute, p. 61.

iii This responsibility was expressed by the International Union for Conservation of Nature (IUCN), which has recommended that Canada and Russia ensure the protection of their Boreal regions.

iv Page 39 in A. Guérette Montminy, E. Berthiaume, M. Darveau, S. Cumming, D. Bordage, S. Lapointe and L.V Lemelin. 2009. Répartition de la sauvagine en période de nidification entre les 51° et 58° de latitude nord dans la province de Québec. Rapport technique n° Q14, Canards Illimités Canada – Québec, Québec.