

Caroline Bouchard, Ph. D.

Greenland Institute of Natural Resources
Greenland Climate Research Centre
Kivioq 2, PO box 570, 3900 Nuuk
cabo@natur.gl • +299 361246
www.carolinebouchard.weebly.com

HIGHER EDUCATION

- 2007 – 2014 **Ph.D. in Oceanography, Université Laval**
Thesis title: *Boreogadus saida* and *Arctogadus glacialis*: larval life of two gadids sharing the Arctic Ocean
Supervisor: Louis Fortier
- 2005 – 2007 **M.Sc. in Biology, Université Laval**
Thesis title: Hatching season, early growth and survival of polar cod (*Boreogadus saida*) in the Laptev Sea: impact of polynyas
Supervisor: Louis Fortier
- 2002 – 2004 **B.Sc. in Biology (Marine Sciences), Université du Québec à Rimouski**

PROFESSIONAL EMPLOYMENT

- 2015 – 2016 **W. Garfield Weston Postdoctoral Fellow, Biology, Université Laval**
Advisor: Louis Fortier
- 2014 **Research Associate, Biology, Université Laval**
Advisor: Louis Fortier
- 2013 – 2014 **Postdoctoral Research Scientist, MARICE, University of Iceland**
Advisor: Guðrun Marteinsdóttir

PUBLICATIONS

Peer-Reviewed Scientific Publications

9. **Bouchard C**, Mollard S, Suzuki K, Robert D, Fortier L (2016) Contrasting the early life histories of sympatric Arctic gadids *Boreogadus saida* and *Arctogadus glacialis* in the Canadian Beaufort Sea. *Polar Biology* 39: 1005-1022.
8. **Bouchard C**, Thorrold SR, Fortier L (2015) Spatial segregation, dispersion and migration in early stages of polar cod *Boreogadus saida* revealed by otolith chemistry. *Marine Biology* 162: 855-868
7. Woods PJ, **Bouchard C**, Holland DS, Punt AE, Marteinsdóttir G (2015) Catch-quota balancing mechanisms in the Icelandic multi-species demersal fishery: are all species equal? *Marine Policy* 55:1-10.
6. Suzuki KW, **Bouchard C**, Robert D, Fortier L (2015) Spatiotemporal occurrence of summer ichthyoplankton in the southeast Beaufort Sea. *Polar Biology* 38: 1379-1389.
5. Pepin P, Robert D, **Bouchard C**, Dower JF, Falardeau M, Fortier L, Jenkins GP, Levesque K, Llopiz JK, Meekan MG, Murphy HM, Ringuette M, Sirois P, Sponaugle S. (2015) Once upon a larva: Revisiting the relationship between feeding success and growth in fish larvae. *ICES Journal of Marine Science* 72: 359-373. (Editor's Choice paper).
4. **Bouchard C**, Robert D, Nelson RJ, Fortier L (2013) The nucleus of the lapillar otolith discriminates the early life stages of *Boreogadus saida* and *Arctogadus glacialis*. *Polar Biology* 36: 1537-1542.
3. Nelson RJ, **Bouchard C**, Madsen M, Praebel K, Rondeau E, Schalburg K, Leong JS, Jantzen S, Sandwith Z, Puckett S, Messmer A, Fevolden S-E, Koop BF (2013) Microsatellite loci for genetic analysis of the arctic gadids *Boreogadus saida* and *Arctogadus glacialis*. *Conservation Genetics Resources* 5: 445-448.
2. **Bouchard C**, Fortier L (2011) Circum-arctic comparison of the hatching season of polar cod *Boreogadus saida*: a test of the freshwater winter refuge hypothesis. *Progress in Oceanography* 90: 105-116.
1. **Bouchard C**, Fortier L (2008) Effects of polynyas on the hatching season, early growth and survival of polar cod (*Boreogadus saida*) in the Laptev Sea. *Marine Ecology Progress Series* 355: 247-256.

Summary for Policy Makers

1. **Science for Environmental Policy**, April 2012, Polar cod survival may be enhanced by climate warming, European Commission DG Environment News Alert Service. Thematic Issue 31: Arctic Science, p. 10.

Reports

3. **Bouchard C**, Fortier L (2015) The Queen Maud Gulf – Victoria Strait marine ecosystem: first overview and preliminary results. Report presented to the W. Garfield Weston Foundation. 40 p.
2. **Bouchard C**, Marteinsdóttir G (2013) Environmental effects of a submarine interconnector between Iceland and the UK. Unofficial Environmental Impact Assessment prepared for Landsvirkjun-The National Power Company of Iceland. 95 p.
1. Nelson RJ, **Bouchard C** (2013) Arctic Cod (*Boreogadus saida*) population structure and connectivity as examined with molecular genetics. North Pacific Research Board project: 1125 Final Report, 37 p.

Peer-Reviewed Oral Presentations (selected)

7. **Bouchard C**, Geoffroy M, LeBlanc M, Fortier L (2016) Climate warming enhances juvenile arctic cod recruitment in Canadian Arctic seas. ArcticNet Annual Scientific Meeting, Winnipeg, Canada.
6. **Bouchard C**, Geoffroy M, LeBlanc M, Lafleur C, Fortier L (2015) Marine fish populations in the Kitikmeot region. ArcticNet Annual Scientific Meeting, Vancouver, Canada.
5. **Bouchard C**, Mollard S, Robert D, Suzuki K, Fortier L (2014) Early life history of the Arctic gadids polar cod (*Boreogadus saida*) and ice cod (*Arctogadus glacialis*). 38th Annual Larval Fish Conference, Québec city, Canada.
4. **Bouchard C**, Mollard S, Robert D, Suzuki K, Fortier L (2014) Compared early life history of sympatric *Boreogadus saida* and *Arctogadus glacialis* in southeastern Beaufort Sea. ESSAS Annual Science Meeting, Copenhagen, Denmark.
3. **Bouchard C**, Fortier L (2012) Early survival in frozen seas: synthesis of the factors influencing survival of polar cod (*Boreogadus saida*) larvae and juveniles. ArcticNet Annual Scientific Meeting, Vancouver, Canada.
2. **Bouchard C**, Fortier L (2010) Polar cod hatching season around the Arctic: influence of freshwater. IPY Science Conference, Oslo, Norway.
1. **Bouchard C**, Fortier L (2008) Laptev Sea polynyas and the hatching season, early growth and survival of polar cod (*Boreogadus saida*). SCAR/IASC IPY Open Science Conference, St. Peterburg, Russia.

AWARDS, GRANTS AND SCHOLARSHIPS

2015 – 2016	W. Garfield Weston Postdoctoral Fellowship (\$40,000/yr)
2014	Norwegian Research Council Travel Fund (\$1,800)
2012	Québec-Océan Short Training Support (\$1,200)
2010	Malcolm Ramsay Memorial Award (\$1,000)
2010	FQRNT (Quebec Government) International Internship Program (\$4,200)
2008	IPY Project no. 26, Pan-AME Student Exchange Program Grant (\$6,000)
2007	FQRNT Doctoral Research Scholarship (\$46,667)
2006	FQRNT Master Research Scholarship (\$10,000)
2005	ArcticNet Training Grant (\$3,300)
2005 – 2010	Northern Scientific Training Program (\$14,162)
2004	NSERC Undergraduate Research Scholarship (\$5,625)

RELATED EXPERIENCE

2012	Research Internship in Population Genetic , University of Victoria, Supervisor: R. John Nelson
2011	Ice-based Fieldwork , Saguenay Fjord, Project SAGWIN, Supervisor: Daniel Bourgault
2011	Arctic Ichthyoplankton Taxonomy for University of Alaska Fairbanks, PI: Brenda Norcross
2010	Research Internship in Otolith Microchemistry (LA-ICPMS) , Woods Hole Oceanographic Institution, Supervisor: Simon Thorrold
2009	Otolith Microchemistry (LA-ICPMS) , Université du Québec à Chicoutimi, Supervisor: Pascal Sirois
2008	Research Internship in Population Genetic , University of Tromsø, Supervisors: Svein-Erik Fevolden, Jørgen S. Christiansen
2008	Experimental Rearing of Arctic Cod Larvae onboard CCGS <i>Amundsen</i>
2007	Scientific Diver , Bamfield Marine Sciences Centre, BC, Canada
2004	Research Assistant , Université Laval, Supervisor: Louis Fortier

OCEANOGRAPHIC CRUISES

2016	CCGS <i>Amundsen</i> , ArcticNet, Canadian Arctic, team leader
2015	CCGS <i>Amundsen</i> , ArcticNet, Canadian Arctic, team leader
2011	CCGS <i>Amundsen</i> , ArcticNet, Canadian Arctic
2010	CCGS <i>Amundsen</i> , ArcticNet, Canadian Arctic
2009	<i>I/B Kapitan Dranitsyn</i> , Nansen and Amundsen Basins Observational System (NABOS), Siberian Arctic, team leader
2009	CCGS <i>Pierre Radisson</i> , ArcticNet, Hudson Bay, team leader
2008	CCGS <i>Amundsen</i> , Circumpolar Flaw Lead System Study (CFL), Canadian Arctic, team leader
2007	R/V <i>Victor Buynitskiy</i> , NABOS, Siberian Arctic, team leader
2005	<i>I/B Kapitan Dranitsyn</i> , NABOS, Siberian Arctic, team leader
2004	<i>I/B Kapitan Dranitsyn</i> , NABOS, Siberian Arctic

TEACHING EXPERIENCE

2013 – present	Co-supervision of 3 Master's student and 4 undergraduate students
2014	Teaching Assistant , University of Iceland, Course: Fisheries Ecology
2009 – 2010	Teaching Assistant , Université Laval, Course: Physical Oceanography

MANUSCRIPT AND PROPOSAL REVIEWS

Polar Biology	ICE Journal of Marine Science
North Pacific Research Board	Progress in Oceanography

PROFESSIONAL MEMBERSHIPS

Early Life History Section of the American Fisheries Society
Association of Polar Early Career Scientists

LANGUAGES

French: native English: fluent Spanish: working knowledge