

Anna H. Olafsdottir

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Education

Ph.D. in Biology, Memorial University, St. John's, Canada graduated 2013

Thesis: **The spawning migration of capelin (*Mallotus villosus*) in Icelandic waters.**

Supervisor: Dr. George A. Rose. Thirteen years of acoustic data from assessment surveys analysed and temperature history created from satellite records. Spawning migration route was influenced by temperature, bathymetry and fronts. Migration timing was influenced by stock size and feeding ground temperatures.

M.Sc. in Biology, Memorial University, St. John's, Canada graduated 2005

Thesis: **Growth of Icelandic capelin (*Mallotus villosus*) larvae.**

Supervisor: Dr. John T. Anderson. Daily growth of two year classes of capelin larvae were investigated by counting daily otolith increments and related to year class survival.

B.Sc. in Biology (minor: Fisheries), University of Iceland, Reykjavik graduated 2000

Research Experience

Fisheries Scientist September 2015 - current

Pelagic Department, Marine Research Institute, Reykjavik, Iceland

- Responsible for mackerel and blue whiting research including participation in stock assessment within ICES WGWIDE and participation in benchmark meetings
- Survey leader for the International Summer Survey in Nordic Seas
- Collaborating with scientists in Norway, Iceland and Greenland on international mackerel research projects
- Teaching including classes on fisheries ecology at University of Akureyri, program Fisheries science, and at the United Nations University Fisheries Training Program

Fisheries Consultant July – August 2015

Department of Fish and Shellfish, Greenland Institute of Natural Resources, Nuuk, Greenland.

Postdoctoral Research Fellow June 2013 – June 2015

Pelagic Department, Faroe Marine Research Institute, Torshavn, Faroe Islands

- Researching growth and summer feeding migration of Northeast Atlantic mackerel (*Scomber scombrus*) from 1984 to present times
- Collaborating with scientists in Norway, Iceland and Greenland on mackerel research
- Participated in an international mackerel assessment survey, responsible for monitoring gear performance and biological sampling
- Attended ICES WGWIDE, WGINOR meetings and ICES benchmark workshop on mackerel stock assessment and presented preliminary results from the mackerel research project

Fisheries consultant, St. John's, Canada fall 2012 – winter 2013

- Contract work for the Arctic Fisheries Alliance and Oceans North Canada
- Researching the Greenland halibut fishery in NAFO Subarea 0 from 1996 to 2011
- Report writing and participating in an official DFO fisheries management meeting

Teaching training

Graduate Program in Teaching, Memorial University, 2008

- Adult teaching methods and theory as preparation for an academic career. Included teaching apprenticeship lecturing model based statistics to 30 undergraduate students (Biol4605) and 20 graduate students (Biol7220).

Teaching Experience

Teaching Assistant, Department of Biology, Memorial University 2008
Course: Model Based Statistics (Biol4605/7220)

- Responsible for developing and giving lectures on statistics to 50 students
- Instructed and encouraged students during statistical computer labs
- Responsible for correcting and marking students weekly assignments and final exam

Teaching Assistant, Department of Biology, Memorial University 2007 – 2008
Course: Principles of Biology (Biol1001/1002)

- Communicated and demonstrated technical practical work methods to groups of up to 25 undergraduate biology students in diverse biological laboratories.
- Responsible for correcting and marking weekly assignments and exams.

Project Management

Academia 2001 – 2015

-Postdoctoral Research project: International research project involving research institutes in Faroe Islands (Faroe Marine Research Institute, Torshavn), Norway (Institute of Marine Research, Bergen), Iceland (Marine Research Institute, Reykjavik), and Greenland (Greenland Institute of Natural Resources, Nuuk). Lead scientist responsible for two research projects on mackerel growth and on mackerel summer feeding distribution (value of project \$280 000 CAD).

-PhD and MSc projects: managed, designed, funded and executed an international scientific research project between the Marine Research Institute, Reykjavik, Iceland, the Department of Fisheries and Oceans and Memorial University of Newfoundland, Canada (value of projects \$190 000 CAD).

Industry 2009 – 2013

Self-employed general building contractor, construction and renovation of residential housing in St. John's, NL, Canada (value of projects \$2 million CAD).

Professional Skills

- **Communication and Presentation of Science:** Extensive experience communicating scientific results both in writing and orally to scientific and public audiences as evident from teaching experience, conference and seminar attendance, and publications.
- **Organization and Team-Working Ability:** Responsible for planning, organizing, executing and financing three post graduate projects (M.Sc., Ph.D., Postdoc) in an international environment. Developed teaching material and taught a statistical course.
- **IT Expertise:** Comprehensive IT skills developed during graduate research and scientific work experience. Experienced using various statistical programs (R, SYSTAT), acoustic post-processing software (Echoview). Experienced operating relational international databases (SQL), such as, PGNAPES (ICES) and NOAA remote sensing SST data base.
- **Quantitative skills:** Inclusive statistical knowledge gained from graduate courses, teaching, manuscript preparation and thesis writing. Understanding of stock assessment methods and models learned during graduate course work and from attending ICES working group meetings and stock assessment courses.
- **Marine Ecology and Fisheries Management:** In-depth knowledge on ecology and management of commercial fish species in the North Atlantic gained from work experience, thesis work and from growing up in a fishing village in Iceland.
- **Languages:** Fluent in English, Icelandic and German; rudimentary abilities in Danish, Norwegian and Faroese.

List of Publications

Olafsdottir, A.H., Slotte, A., Jacobsen, J.A., Oskarsson, G.J., Utne, K.R. and Nøttestad, L. 2016. Changes in body condition and somatic growth rate of mature Northeast Atlantic mackerel (*Scomber scombrus*) from 1984 to 2013: effects of mackerel stock size, herring stock size, and temperature. ICES Journal of Marine Science, 73: 1255-1265.

Olafsdottir, A.H. and Rose, G.A. (2013) Staged spawning migration in Icelandic capelin (*Mallotus villosus*): effects of temperature, stock size and maturity. Fisheries Oceanography, 22: 446-458.

Olafsdottir, A.H. and Rose, G.A. (2012) Influences of temperature, bathymetry and fronts on spawning migration routes of Icelandic capelin (*Mallotus villosus*). Fisheries Oceanography, 21: 182-198.

Olafsdottir, A.H. and Anderson, J.T. (2010) Growth and survival of Icelandic capelin *Mallotus villosus*. Marine Ecology Progress Series, 403: 231-241.

Reports

ICES 2017. Report of the Benchmark Workshop on Widely Distributed Stocks (WKWIDE), 30 January–3 February 2017, Copenhagen, Denmark. ICES CM 2017/ACOM:36. 196 pp.

ICES 2016a. Report of the Inter-Benchmark Protocol for Blue Whiting (IBPBLW), 10 March–10 May 2016, By correspondence. ICES CM 2016/ACOM:36. 118 pp.

ICES. 2016b. Report of the Workshop on Blue Whiting (*Micromesistius poutassou*) Long Term Management Strategy Evaluation (WKBWMS), 30 August 2016, ICES HQ, Copenhagen, Denmark. ICES CM 2016/ACOM:53. 104 pp.

- ICES 2016c. Report of the Working Group on Widely Distributed Stocks (WGWIDE), 31 August-6 September 2016, ICES HQ, Copenhagen, Denmark. ICES CM 2016/ACOM:16. 500 pp.
- ICES 2016d. Final Report of the Working Group on the Integrated Assessments of the Norwegian Sea (WGINOR), 7-11 December 2015, Reykjavik, Iceland. ICES CM 2015/SSGIEA:10. 149 pp.
- ICES. 2014. Report of the Report of the Working Group on Widely Distributed Stocks (WGWIDE), 26 August - 1 September 2014, ICES Headquarters, Copenhagen, Denmark. ICES CM 2014/ACOM:15. 938 pp.
- ICES. 2013. Report of the Working Group on Widely Distributed Stocks (WGWIDE), 27 August - 2 September 2013, ICES Headquarters, Copenhagen, Denmark. ICES CM 2013/ACOM:15. 950 pp.
- Nøttestad, L., Óskarsson, G., Jacobsen, J.A. *et al.* 2016. Cruise report from the International Ecosystem Summer Survey in the Nordic Seas (IESSNS) with M/V "M.Ytterstad", M/V "Vendla", M/V "Tróndur í Gotu" and R/V "Árni Friðriksson", 1 - 31 July 2016. Working Document to WGWIDE, ICES, Copenhagen, Denmark, 31 August – 6 September, 2016. 41pp.
- Nøttestad, L., Sveinbjornsson, S., Debes, H. *et al.* 2014. Cruise report from the coordinated ecosystem survey (IESSNS) with M/V "Brennholm", M/V "Vendla", M/V "Finnur Fríði" and R/V "Árni Friðriksson" in the Norwegian Sea and surrounding waters, 2 July - 12 August 2014. Working Document to WGWIDE, ICES, Copenhagen, Denmark, 26 August – 1. September, 2014. 49pp.
- Utne, K.R., **Olafsdottir, A.**, Óskarsson, G., Slotte, A., Mork, K.A., Jacobsen, J.A., Jónsson, S.P., and Nøttestad, L. 2014. Environmental conditions and horizontal distribution of mackerel during summer feeding. Working Document to WKPELA, ICES, Copenhagen, Denmark, 21-27 February, 2014. 17 pp.
- Olafsdottir, A.**, Slotte, A., Jacobsen, J.A., Óskarsson, G., Utne, K., and Nøttestad, L. 2014. Changes in the growth of North East Atlantic Mackerel (*Scomber scombrus*) 1984 – 2013 in relation to spawning stock biomass and environmental conditions. Working Document to WKPELA, ICES, Copenhagen, Denmark, 21-27 February, 2014. 22 pp.
- Nøttestad, L., Óskarsson, G., Jacobsen, J.A., *et al.* 2013. Cruise report from the coordinated ecosystem survey (IESSNS) with M/V "Libas", M/V "Eros", M/V "Finnur Fríði" and R/V "Arni Fridriksson" in the Norwegian Sea and surrounding waters, 2 July - 9 August, 2013. Working Document to WGWIDE, ICES, Copenhagen, Denmark, 27 August - 2. September, 2013. 42 pp.
- Jacobsen, J.A., and **Olafsdottir, A.** 2013. Multipelt 832 trawl monitoring during mackerel swept area survey. Working document to WGWIDE, ICES, Copenhagen, Denmark, 27 August - 2. September, 2013. 26 pp.
- Olafsdottir, A.H.** and Rose, G.A. 2013. The Greenland halibut (*Reinhardtius hippoglossoides*) fishery in NAFO Subarea 0 from 1996 to 2011. Unpublished report produced for Arctic Fisheries Alliance and Oceans North Canada. 61pp.

Conferences and Seminars

- Oral presentation: Density dependent range expansion of the Northeast Atlantic mackerel stock. Public lecture series of the Marine Research Institute, Reykjavik, Iceland, 2017.
- Oral presentation: Density dependent range expansion of Northeast Atlantic mackerel is delineated by temperature. ICES/PICES Symposium on Drivers of dynamics of small pelagic fish resources. Victoria, BC, Canada, 2017.
- Oral presentation: Feeding range expansion of Northeast Atlantic mackerel from 2007 to 2014: effects of spawning stock size, temperature, and zooplankton abundance. POLESHIFTS conference, Reykjavik, Iceland, 2015.
- Oral presentation: Changes in body condition and somatic growth rate of Northeast Atlantic mackerel (*Scomber scombrus*) from 1984 to 2013: effects of mackerel stock size, herring stock size, and temperature. POLESHIFTS conference, Reykjavik, Iceland, 2015.
- Organizer: Pelagic Fish Stocks on the Move and in the News: Collapse, Recovery, or Something Else? American Fisheries Society Annual Meeting in Quebec City, Canada, 2014.
- Invited speaker: Rapid changes in biology and ecology of the Northeast Atlantic mackerel (*Scomber scombrus*) during the last decade. Memorial University Graduate Student Union Seminar Series, St. John's, Canada, 2014.
- Invited speaker: Spawning migration of capelin (*Mallotus villosus*): where, when and why. 50 years of commercial capelin fishery, University of Akureyri, Iceland, 2014.
- Oral presentation: Westward summer feeding range expansion of Northeast Atlantic mackerel from 2007 to 2013: effects of temperature, zooplankton abundance and spawning stock size. ICES Annual Science Conference, A Coruna, Spain, 2014.
- Oral presentation: Changes in growth of Northeast Atlantic mackerel in relation to spawning stock biomass and environmental condition. American Fisheries Society Annual Meeting in Quebec City, Canada, 2014.
- Oral presentation: The Icelandic capelin (*Mallotus villosus*) spawning migration: location and timing. ICES Annual Science Conference, Reykjavik, Iceland, 2013.
- Oral presentation: Spawning migration of the Icelandic capelin stock: where, when and why. Public lecture series of the Marine Research Institute, Reykjavik, Iceland, 2013
- Oral presentation: Influences of temperature and bathymetry on spawning migration routes of Icelandic capelin (*Mallotus villosus*). 65th Canadian Conference for Fisheries Research, Moncton, Canada, 2012
- Oral presentation: Influences of temperature, bottom depth and ocean currents on capelin spawning migration route. Public seminar series of the Marine Research Institute, Reykjavik, Iceland, 2011

Reviewer

Reviewed 10 articles for journals such as Progress in Oceanography, Deep Sea Research, Environmental Biology of Fishes and Fisheries Research.

Professional memberships

Chair of ICES WKWBMS in 2016

ICES Working Group on Widely Distributed Stocks (WGWIDE)

ICES Working Group of International Pelagic Surveys (WGIPS)

ICES Working Group on the Integrated Assessments of the Norwegian Sea (WGINOR)

Academic Awards and Funding

Postdoctoral Research Fellow, total \$280 000 CAD

Funded by the Kingdom of Denmark.

Icelandic funding for M.Sc. and Ph.D. degrees, total \$115 000 CAD

The Marine Research Institute, Reykjavik, Iceland; The Federation of Icelandic Fishing Vessel Owners; Icelandic Ministry of Fisheries and Agriculture; Icelandic Research Fund for Graduate Students; The Helga Jónsdóttir and Siguðurliði Kristjánsson Commemoration Fund for Studies in Engineering and Natural Sciences

Canadian funding for M.Sc. and Ph.D. degrees, total \$75 000 CAD

Memorial University of Newfoundland, St. John's, Canada