

## Short CV – Dorte Bekkevold

### Degrees

- PhD, Department of Ecology and Genetics, Biological Institute, Aarhus University, Denmark (2002).
- MSc, Department of Ecology and Genetics, Biological Institute, Aarhus University, Denmark (1998).

### Positions

- Senior Researcher, DTU Aqua, Technical University of Denmark (2007-present).
- Scientist, Danish Institute for Fisheries Research (DIFRES) (2002-2007).
- Head of Section for Population Genetics (2008-2010; during a major restructuring, the section in 2010 became part of Section for Population Ecology and Genetics, now Marine Living Resources).

### Research area

Population and fisheries genetics; focus on the application of molecular markers in identifying species, demographics, life histories and migratory behaviour in aquatic organisms in natural and managed regimes. Evolutionary and molecular ecology; focus on genomic evidence for local adaptation, determining effects of genetic introgression and global change. Development of molecular tools to trace populations and species, including in environmental samples (eDNA).

### Distinctions and awards

ICES (International Council for Exploration of the Sea) service award for serving as a chairman of ICES Working Group on Application of Genetics in Fisheries and Mariculture (WGAGFM) (2015).

### Memberships of scientific committees, 2011-present

Danish delegate for ICES Working Group for the Application of Genetics in Fisheries and Mariculture (from 2003; Chair 2012-2014).

### Review, 2011-present

Regular reviews for Icelandic, Faroese and Estonian Research Councils, invitee Norwegian Research Council 2016; Referee for a large number of international journals including Molecular Ecology, Fish and Fisheries, Canadian Journal of Fisheries and Aquatic Science, Conservation Genetics, Marine Ecology Progress Series, Marine Biology.

**Peer reviewed publications:** 56. **Books and book chapters:** 3. **Reports:** 15. **International conferences:** 26.

### Advisory tasks, 2011-present

Advice to EU, ICES, the Ministry of Environment and Food of Denmark, as well as NGOs and the general public on management of fishes, with respect to genetic resources and biodiversity.

### Educational tasks, 2011-present

- DTU courses: 25315 Genetic Methods in Aquaculture (Contributor; Responsible in 2015); 25313 Genetic Methods in Fisheries and Aquatic Biodiversity Conservation (Contributor; Responsible in 2015).
- Main supervisor for EU Erasmus trainee.

### Supervision, 2011-present

**PhD students:** 3 (Main Supervisor); 5 (Co-supervisor).

### Grants, 2011-present

- BONUS: Biodiversity changes – causes, consequences and management implications (BIO-C3) (2014-2017, WP Leader, SSC Member).
- Innovation Fund Denmark: Strengthening the Danish Populations of Atlantic Salmon - increasing populations, genetic resources and recreational fishing (DPAS) (2016-2019, WP Leader).
- EU FP7: The development of tools for tracing and evaluating the genetic impact of fish from aquaculture (AQUATRACE) (2012-2016, WP Leader, SSC Member).
- Danish Rod and Net Fishing License Funds: Genetic mapping of Danish trout populations (2011-2016, Coordinator).
- EU FP7: Traceability of Fish Populations (FISHPOPTRACE) (2008-2011, WP Leader, SSC Member).

### Research collaboration with stakeholders, 2011-present

National and international NGOs, expert groups and industry, including from aquaculture and commercial fisheries organizations.

## Five selected publications

Bekkevold D, Gross R, Arula T, Helyar S, Ojaveer H. (2016). Outlier loci detect intraspecific biodiversity amongst spring and autumn spawning herring across local scales. PLoS ONE 11(4), e0148499. doi:10.1371/journal.pone.0148499.

Bekkevold D, Helyar SJ, Limborg MT, Nielsen EE, Hemmer-Hansen J, Clausen LAW, FishPopTrace consortium, Carvalho GR. (2015). Gene-associated markers can assign origin in a weakly structured fish, Atlantic herring. ICES Journal of Marine Science, 72, 1790-1801.

Meier K, Hansen MM, Normandeau E, Mensberg KLM, Frydenberg J, Larsen PF, Bekkevold D, Bernatchez L. (2014). Local Adaptation at the Transcriptome Level in Brown Trout: Evidence from Early Life History Temperature Genomic Reaction Norms. PLOS One, 9(1), e85171.

Limborg M, Helyar SJ, de Bruyn M, Taylor MI, Nielsen EE, Ogden R, Carvalho GR, Bekkevold D. (2012). Environmental selection on transcriptome-derived SNPs in a high gene flow marine fish, the Atlantic herring (*Clupea harengus*). Molecular Ecology, 21, 3686-3703.

Bekkevold D, Clausen LAW, Mariani S, André C, Hatfield EMC, Torstensen E, Ryman N, Carvalho GR, Ruzzante DE. (2011). Genetic mixed-stock analysis of Atlantic herring populations in a mixed feeding area. Marine Ecology Progress Series, 442, 187-199.