

## BaltGene Publications – January 2012.

### *Scientific publications and manuscripts produced within BaltGene*

- Andersen O**, De Rosa MC, Pirolli D, Tooming-Klunderud A, Petersen PE, Andre C. 2011. Polymorphism, selection and tandem duplication of transferrin genes in Atlantic cod (*Gadus morhua*) - Conserved synteny between fish monolobal and tetrapod bilobal transferrin loci. *BMC Genetics* 2011, 12:51. doi:10.1186/1471-2156-12-51
- André C**, Larsson LC, Laikre L, Bekkevold D, Brigham J, Carvalho GR, Dahlgren TG, Hutchinson WF, Mariani S, Mudde K, Ruzzante DE, Ryman N. 2010. Detecting population structure in a high gene-flow species, Atlantic herring (*Clupea harengus*): direct, simultaneous evaluation of neutral versus putatively selected loci. *Heredity*, 2010, 104:40-51. doi: 10.1038/hdy.2010.71.
- Charlier J**. 2011. Monitoring gene level biodiversity – aspects and considerations in the context of conservation. Doctoral thesis 2011. Department of Zoology, Stockholm University, 60 pp. ISBN 978-91-7447-353-7
- Charlier J**, Palmé A, Laikre L, Andersson J, Ryman N. 2011. Census ( $N_C$ ) and genetically effective ( $N_e$ ) population size in a lake-resident population of brown trout *Salmo trutta*. *Journal of Fish Biology*, 2011, 79, 2074-2082. doi:10.1111/j.1095-8649.2011.03124.x
- DeFaveri J**, Shikano T, Shimada Y, Goto A, Merilä J. 2011. Global analysis of genes involved in freshwater adaptation in threespine sticklebacks (*Gasterosteus aculeatus*). *Evolution* 65: 1800-1807. doi:10.1111/j.1558-5646.2011.01247.x
- Forslund H**, Eriksson O, Kautsky L. Grazing and geographic range of the Baltic seaweed *Fucus radicans* (*Phaeophyceae*). *Marine Biology Research*, in press.
- Genelt-Yanovsky EA**. (2010). Population biology and distribution *Cerastoderma edule* (Linnaeus, 1758) in north-eastern border area (Murmansk Barents Sea)". *Doctoral thesis, University of S:t Petersburg*. Defence of thesis - December 2, 2010.
- Herczeg G**, Turtiainen M, Merilä J. 2010. Morphological divergence of North-European nine-spined sticklebacks (*Pungitius pungitius*): signatures of parallel evolution. *Biological Journal of Linnean Society* 101: 403-416. doi:10.1111/j.1095-8312.2010.01518.x
- Jackson JA**, Laikre L, Baker CS, Kendall KC, the Genetic Monitoring Working Group. Guidelines for collecting and maintaining archives for genetic monitoring. *Conservation Genetic Resources*, doi 10.1007/s12686-011-9545-x
- Johannesson K**, Forslund H, Åstrand Capetillo N, Kautsky L, Johannsson D, Pereyra RT and Råberg S. Asexual recruitment decreases phenotypic variation in Baltic populations of the endemic macroalga *Fucus radicans*. *BMC Ecology* (in press).
- Johannesson K**, Johannsson D, Larsson KH, Huenchunir CJ, Perus J, Forslund AH, Kautsky L, Pereyra RT. 2011. Frequent clonality in fucoids (*Fucus radicans* and *F. vesiculosus*; Fucales Phaeophyceae) in the Baltic Sea. *Journal of Phycology* 47, 990-998 (2011)
- Johannesson K**, Smolarz K, Grahn M, André C. 2011. The Future of Baltic Sea Populations: Local Extinction or Evolutionary Rescue? *AMBIO* 40:179-190. DOI: 10.1007/s13280-010-0129-x
- Kahilainen KK**, Teacher AGF, Kähkönen K, Vinni M, Lehtonen H, Merilä J. 2011. First record of natural hybridization and introgression between pikeperch *Sander lucioperca* and perch *Perca fluviatilis*. *Annales Zoologici Fennici* 48: 39-44.
- Kijewski T**, Śmietanka B, Zbawicka M, Gosling E, Hummel H, Wenne R. 2011. Distribution of *Mytilus* taxa in European coastal areas as inferred from molecular markers. *Journal of Sea Research* 65 (2011) 224-234.
- Laikre L**. 2010. Genetic diversity is overlooked in international conservation policy implementation. *Conservation Genetics* 11:349–354 (2010).
- Laikre L**, Allendorf FW, Aroner LC, Baker CS, Gregovich DP, Hansen MM, Jackson JA, Kendall KC, McKelvey K, Neel MC, Olivieri I, Ryman N, Schwartz MK, Shortbull R, Stetz JB, Tallmon DA, Taylor BL, Vojta CD, Waller DM, Waples RS. 2010. Neglect of Genetic Diversity in Implementation of the Convention on Biological Diversity. *Conservation Biology* 24:86–88 (2010a).
- Laikre L**, Nilsson T, Primmer CR, Ryman N, Allendorf FW. 2009. Importance of genetics in the interpretation of Favourable Conservation Status. *Conservation Biology*, 23(6), 1378-1381 (2009).
- Laikre L**, Schwartz MK, Waples RS, Ryman N, and The GeM Working Group. Compromising genetic diversity in the wild: unmonitored large-scale release of plants and animals. 2010. *Trends in Ecology and Evolution* 25:520-529 (2010b).

- Larsson LC**, Laikre L, André C, Dahlgren TG, Ryman N. 2010. Temporally stable genetic structure of heavily exploited Atlantic herring (*Clupea harengus*) in Swedish waters. *Heredity*, 104:40-51 (2010).
- Lind, T.** 2011. "What's the problem with fish stocking?" Research report, 25pp. Luleå University of Technology, Sweden.
- Luttikhuisen PC**, Drent J, van der Veer HW, Johannesson K. Genetic architecture in a marine hybrid zone: outlier detection and genomic clone analysis in the marine bivalve *Macoma balthica*. *Molecular Ecology* (in press).
- Nilsson Jacobi M**, André C, Döös K, Jonsson PR. Identification of subpopulations from connectivity matrices. *Ecography*, (in press).
- Olsson J**, Florin AB, Mo K, Aho T, Ryman N. 2012. Genetic structure of whitefish (*Coregonus maraena*) in the Baltic Sea. *Estuarine, Coastal and Shelf Science* (2012) 97, 104-113.
- Olsson J**, Mo K, Florin AB, Aho T, Ryman N. 2011. Genetic population structure of perch *Perca fluviatilis* along the Swedish coast of the Baltic Sea. *Journal of Fish Biology* (2011) 79(1), 122-137.
- Palmé A.** 2010. Assessing and monitoring genetic patterns for conservation purposes with special emphasis on Scandinavia. Doctoral dissertation 2011. Department of Zoology, Stockholm University. 61 pp. ISBN: 978-91-7447-130-4
- Papakostas S**, Vasemägi A, Peil L, Himberg M, Vähä JP, Primmer CR. 2012. A proteomics approach reveals divergent molecular responses to salinity in populations of European whitefish (*Coregonus lavaretus*). *Molecular Ecology* (in press).
- Pereyra RT**, Bergström L, Kautsky L, Johannesson K. 2009. Rapid speciation in a newly opened postglacial marine environment, the Baltic Sea. *BMC Evolutionary Biology* 2009, 9:70, doi:10.1186/1471-2148-9-70.
- Sandström A.** 2010. Institutional and substantial uncertainty—Explaining the lack of adaptability in fish stocking policy. *Marine Policy*, Volume 34, Issue 6, November 2010, Pages 1357-1365
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- Shikano T**, Shimada Y, Herczeg G, Merilä J. 2010. History vs. habitat type: explaining the genetic structure of European nine-spined stickleback (*Pungitius pungitius*) populations. *Molecular Ecology* 19: 1147-1161. doi:10.1111/j.1365-294X.2010.04553.x
- Teacher AGF**, Kähkönen K, Merilä J. 2011. Development of 61 new transcriptome-derived microsatellites for the Atlantic herring (*Clupea harengus*). *Conservation Genetics Resources*. DOI: 10.1007/s12686-011-9477-5
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### **Conference reports & presentations**

- Genelt-Yanovsky EA**, Mikhailova NA. (2010) Monitoring the genetic structure of cockles populations in the Barents and Baltic Seas as a tool for biodiversity assessment and conservation. *Proceedings of the Second Youth Environmental Congress "Northern Palmira"*. 16-18 Nov. 2010. Publisher of the St. Petersburg Research Centre for Ecological Safety. P. 235-240.
- Forslund H**, Kautsky, L., Johannesson, K and Pereyra R. Reproductive barriers in the sympatric seaweeds *Fucus radicans* and *Fucus vesiculosus* (poster at the Conference "Visions of the Sea" Stockholm, 21-23 Nov. 2011. Sweden.
- Sandström, A.** 2011. 'The challenges of adaptive management: Navigating institutional complexities and substantial uncertainties in fish stocking policy', Resilience 2011, Tempe, Arizona, USA, 11-03-11 - 16-03-11. *Abstract*.
- Sańko T**, Burzyński A., Wenne R., Transcriptome analysis of mussel (*Mytilus trossulus*) from the Baltic, III Polski Kongres Genetyki, Lublin, 12-15.09.2010, Conference materials, *abstract*, p. 134.

**Schagerström, E.** Scales and functions in Baltic *Fucus* forests. **Oral presentation** at the Baltic Sea Science Congress St. Petersburg Aug. 2011, data from the BONUS BaltGene project

**Zbawicka M, Drywa A, Wenne R:** Identification and validation of novel SNP markers in European populations of marine mussels *Mytilus*. 13th Congress of the European Society for Evolutionary Biology, 20 – 25.08.2011, Tübingen, Germany, *abstract*.

**Nordic Marine Science Today.** Highlights from the Nordic marine Sciences Conference 2010, Strömstad. Swedish Society of Marine Sciences and University of Gothenburg. 16 pp.

### **Doctoral theses**

**Charlier J.** 2011. Monitoring gene level biodiversity – aspects and considerations in the context of conservation. *Doctoral thesis 2011. Department of Zoology, Stockholm University*, 60 pp. ISBN 978-91-7447-353-7

**Genelt-Yanovsky EA.** (2010). Population biology and distribution *Cerastoderma edule* (Linnaeus, 1758) in north-eastern border area (Murmansk Barents Sea)". *Doctoral thesis, University of S:t Petersburg*. Defence of thesis - December 2, 2010.

**Palmé A.** 2010. Assessing and monitoring genetic patterns for conservation purposes with special emphasis on Scandinavia. *Doctoral thesis 2011. Department of Zoology, Stockholm University*. 61 pp. ISBN: 978-91-7447-130-4

### **Popular science publications & Public outreach activities**

**Johannesson K,** (2010). Bevara bjälklagsarter – nödvändigt recept för hållbara ekosystem. Biodiverse 2010:4, pp. 10-11.

**Johannesson K** 2011. Den bortglömda mångfalden. Havsutsikt 2/2011. (Havsutsikt utges av Havsmiljöinstitutets enheter i Göteborg, Stockholm och Umeå.

**Johannesson K** 2011. Ta fisken och miljön I samma båt. Framtider nr 3/11 (Framtider utges av Institutet för framtidsstudier, Stockholm).