Gary Carvalho; Research Professor, Bangor University, UK

Professor G Carvalho is Professor of Molecular Ecology, with > 28 years experience in molecular ecology and evolution, and coordinates the Molecular Ecology and Fisheries Genetics Laboratory (MEFGL) at Bangor University (http://mefgl.bangor.ac.uk/), one of Europe's largest centres focusing on population and species diversity of aquatic animals. Research interests include the ecology and evolution of population differentiation, fisheries genetics and the evolution of adaptive variation in the wild. He has led numerous international projects, including coordinator and WP leader in several EU projects, and Principal Investigator in many nationally-funded (e.g. NERC, Leverhulme Trust) projects. His work on marine fishes encompasses the analysis of genetic structuring, impacts of harvesting on genetic diversity and estimation of effective population size, and includes among the first demonstrations of fine-scale structuring and decadal analysis of cod and the analysis of "biocomplexity" in a marine pelagic fish, a genetic component in fisheries-induced evolution, and more recently an early application of SNPs to tackle illegal, unregulated and unreported fishing (IUU) in marine fishes. Carvalho coordinated (2008-2011) the European project, *FishPopTrace*, focusing on population structure and novel tools in the traceability of fish and fish products, and a recently-funded NERC-funded project exploring the impact of Southern Ocean Warming on development and population connectivity in Antarctic fishes. Activities include high throughput sequencing technologies, including environmental DNA, metabarcoding and the analysis of fish gut microbiomes. He is Editor of the *Proceedings of the Royal Society of London, B*, *Fish and Fisheries*, and on Editorial boards of *Molecular Ecology* and *Conservation Genetics*. He has served on various fisheries focus groups including the OECD, DEFRA (UK) and FAO, and is recent Chair of the ICES Working Group on the Application on Genetics in Fisheries and Mariculture, current President of the Fisheries Society of the British Isles (FSBI; 2019-2021); past Chair, European Regional Working Group of FISH-BOL- (DNA barcoding of fishes), and serves on various bodies, including the Academy of Finland, (Chair, Ecology Panel), Norwegian Research Council, member of the IUCN Survival of Species specialist group on Conservation Genetics, and is Vice-Chair of Environment Panels of the Research Executive Agency, European Commission.

Einar Eg Nielsen - Bio

Einar Nielsen is professor and research coordinator at the Technical University of Denmark (DTU), where he is responsible for the research area of “Fisheries Genetics”. His research encompasses population genomics of marine organisms, studies of DNA from historical collections as well as analysis of environmental DNA (eDNA). Besides research, he teaches application of genetics/genomics in Fisheries and Aquaculture and provides advice to the Danish government and the EU regarding application of genetics in fisheries and conservation of genetic resources in exploited aquatic organisms. He has a PhD from Aarhus University (DK) and is an honorary professor at the University of Queensland, Australia. He has been the Danish member of ICES Scientific Committee and is former chair of the Working Group on Applied Genetics for Fisheries and Aquaculture (WGAGFA).

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Sarah Helyar

Dr Sarah Helyar is a molecular ecologist with more than ten years' experience. She currently works at Queen's University Belfast, where she is a lecturer in Food Security. She has wide research interests, but the core of those interests focuses on applying molecular tools to issues affecting fish and fisheries. Her research follows two main themes: The first is the integration of genomics with ecological and environmental data to look at evolution, adaptation and population structure of exploited species, and how this impacts on the sustainability, structure and diversity of marine ecosystems. The second is the application of genetic markers to address issues in traceability; this can range from Mixed Stock Analysis to developing tools for authenticity testing of food products. Sarah has worked in several countries, both in universities and more commercial settings, and works closely with industrial partners throughout the food supply chain in fisheries and aquaculture. Sarah is also on the Council of the Fisheries Society of the British Isles (FSBI) and is a member of the ICES Working Group on the Application of Genetics in Fisheries and Mariculture.

Rita Castilho

Rita Castilho was born ten years after the publishing of the DNA structure by Watson and Crick, profiting from all the technical and conceptual developments since. She is an Assistant Professor at the University of Algarve, and senior researcher at the Centre for Marine Sciences. Her background is in population genetics, and her research uses a combination of molecular, ecological and environmental data to investigate patterns of species genetic diversity and structure. With 50 peer review published articles, has developed a particular interest in small pelagic fish, such as sardines, European anchovy and the horse and the Atlantic mackerels. She is Academic Editor of PeerJ and Mitochondrial DNA part A, editorial board member of Scientific Reports and recommender of PCI Evolutionary Biology. She is a national delegate to ICES working groups on "Application of Genetics to Fisheries and Aquaculture" and "Stock Identification Methods". Besides research, she teaches Evolution and Marine Biogeography and Evolution both at the undergraduate and graduate level, having supervised numerous students of different levels.

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Ernesto Jardim

Ernesto Jardim is a senior fisheries scientist with a background in Marine Biology, Statistics and Fisheries. He holds a degree in Marine Biology, a MSc in statistics and a PhD in fisheries science. Between 1995 and 2011 he worked for the Portuguese Institute of Marine Research (IPIMAR). He was involved in the development and implementation of the Data Collection Framework, statistical models for spatial analysis, stock assessment and multi-annual management plans analysis. He collaborated with African countries (Gabon, Guiné-Bissau, Cabo Verde and Mozambique) on the establishment of sampling networks and training. During that period he was also chief-scientist of several scientific surveys, he was involved in Marine Spatial Planning, the early stages of the Marine Strategy Framework Directive (MSFD) and the development of the Fisheries Libraries in R (FLR). In 2011 he joined the European Commission Joint Research Centre (JRC) has a senior research fellow. Ernesto Jardim is the leading scientist of the JRC's "assessment for all" Initiative (a4a), which aims to develop quantitative methods for stock assessment and scientific advice. He's involved in the development, design and evaluation of multi-annual management plans within the scope of the Scientific, Technical and Economic Committee for Fisheries (STECF) of the European Commission. Within the STECF he's an active scientist, leading and contributing to other subjects like monitoring of the Common Fisheries Policy, landings obligations and stock assessment. Ernesto Jardim has experience working in international contexts chairing and coordinating multidisciplinary international teams. He has a long experience with quantitative analysis using R, SQL databases and other platforms. He has published multiple papers and presented his work in international scientific conferences.

Jann Th. Martinsohn - Bio

Jann Martinsohn is Head (f.f.) of the Water and Marine Resources Unit at the European Commission Joint Research Centre.

His responsibilities focus on scientific advice to European Union (EU) freshwater and marine policies and governance. He contributes in particular to the Common Fisheries Policy and the EU Blue Growth Strategy.

His specific interest is to contribute to the introduction of genetic and genomic approaches to marine conservation as well as fisheries and aquaculture management.

After two years of civil service, working as a rescue driver and paramedic and providing individual care for severely disabled people, Jann studied molecular biology specializing in immuno- and evolutionary genetics.

He also graduated in marine science while he lived in New Zealand, where he studied at the "southernmost university of the world" and worked on a deep sea trawler targeting orange roughy, black dory and hoki around the Southern island.

Jann holds a diploma in marine science (University of Otago, New Zealand) and a Ph.D. in immunogenetics (University of Cologne , Germany). He was a Marie Skłodowska-Curie fellow in Miroslav Radman's department of Evolutionary and Medical Genetics at the research faculty of Necker-Enfants Malades (Paris, France), where he worked on *in-vivo* directed evolution.

Jann has co-organised international conferences, has been steering committee member of acclaimed projects, contributed to FAO fisheries groups as well as scientific support to the European Commission and the European Parliament, and is elected chair of the Working Group on Applied Genetics for Fisheries and Aquaculture (WGAGFA) under the remit of the International Council for Exploration of the Sea (ICES).

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