

CURRICULUM VITAE

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Home address: Nyponvägen 27, 45 338, Lysekil, Sweden

Nationality: Swedish/Italian

Languages: Full knowledge: Italian, English and Swedish. Limited knowledge: Spanish and Norwegian

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Master education and thesis: Degree in Biological Science, University “La Sapienza” Rome, Italy with the maximum (110/110 with honour), 1995. **Thesis:** “Growth and diet of *Xyrichthys novacula* (Pisces: Labridae)”. **Supervisor:** Prof. G.D. Ardizzone (Department of Human and Animal Biology, University “La Sapienza” Rome).

Doctoral thesis: "Reproductive potential of Baltic cod populations (*Gadus morhua*), Department of Marine Ecology, Göteborg University, Sweden, 2001, Fishery Ecology. **Supervisor** Dr. Fredrik Arrhenius, Swedish National Board of Fisheries, Sweden.

Professional experience:

1993-94 Field and laboratory work experience and studies of population dynamics on several commercial fish species in the Central Tyrrhenian Sea (Mediterranean Sea) under Prof. G.D. Ardizzone guidance (Department of Human and Animal Biology, University “La Sapienza” Rome). Experience in aquaculture made on the *Spaurus auratus* in Ponza Island, Central Tyrrhenian Sea.

1994 Participation as research assistant in the EEC project “Cartography of the Italian demersal resources” carried out by the Department of Human and Animal Biology, University “La Sapienza” Rome, making use of the software package Arc/Info (GIS).

1993-94-95-96 Participation as scientist in national program supported by the Italian Ministry of Agriculture and Forestry “Demersal resources evaluation in the Italian Seas” (Fishery act 41/82).

1994-95-96-97 Participation as scientist in the MEDITSIT-EEC project “Demersal resources evaluation of the Mediterranean Sea” Prof. G.D. Ardizzone (Department of Human and Animal Biology, University “La Sapienza” Rome).

1988-01 Participation as professional birds ringer in the International project “Small Island project” for the study and ringing of Transaharian birds spring migration coordinated by the INFS (National Institute for Wild Fauna, Ozzano Emilia, Bologna, Italy), in the ringing station of Capri, Ventotene, Palo Laziale e Castelporziano, Italy.

2/1996 Participation as scientist in the trawl survey supported by the Swedish National Board of Fishery “Estimation of cod discard practice in the Kattegat and Skagerrak” on board of the research vessel ARGOS.

3/1996 Participation as scientist using a grant of the scientific Cupertino agreement between Swedish SJFR-Italian CNR in the project directed at the estimation of cod discard practice in the Baltic and Kattegat.

1996/97/98/99 and 2002 Participation as scientist in the trawl survey supported by the Swedish National Board of Fishery “Recruitment cod in the Baltic Sea” on board of the research vessel ARGOS.

9/1999 Temporary contract (to 8/2000) as scientist at IMR (Modelling of Baltic cod database) (Swedish National Board of Fisheries, Institute for Marine Research).

2/2000 Advanced Course in stock assessment for stock assessment coordinators, ICES, Copenhagen.

1/2001 Temporary contract as statistical consultant and database analyser for the DG XIV-EU project "FABOSA" on alternative methods for fish ageing.

1/2001 Permanent position as researcher in Eco-physiology of small birds migration and statistical analysis and modelling of large database set at INFS (National Institute for Wild Fauna of Bologna, Italy).

10/2001 Temporary Contract (to 12/2001) as scientist (Modelling of Kattegat-Skagerrak cod database) at IMR (Institute for Marine Research, Swedish National Board of Fisheries).

12/2001 Permanent position as researcher (Stock Assessment, Statistical analysis and modelling of fisheries data) at IMR (Institute for Marine Research, Swedish National Board of Fisheries).

1/2002 and onwards, Director of the Research Centre on Bird Migration, Island of Ponza, Italy.

01/2003 Participation at the EU Twinning Project in Riga, Lettland as fisheries expert on Data Collection Regulation framework within EU.

11/2005 Participation as representing the Swedish National Board of Fisheries at the workshop on “Shrimp by-catch and ecosystem approach to fisheries management” organized by FAO in Maputo, Mozambique.

11/2006 Collaboration with the Kenya Marine Fisheries Research Institute and participation in the project “Ectoparasitic polychaetes in the Indian Ocean”. Field sampling in Malindi Coral Reef Marine Park, Kenya.

01/2007 to 12/2009 Responsible of the Component A (Stock assessment and resources management) Sustainable coastal fisheries resources management project in the Java Sea (Indonesia) under SIDA (Swedish International Development Cooperation Agency).

08/2009 Participation as representing the Swedish National Board of Fisheries at the workshop on “Tropical fisheries” organized by WIOMSA in Reunion Island, 24-28 August 2009.

10/2010 and onwards, President of the NGO “CISCA” Italian Center for the study on the conservation and environment”.

02/2010 Participating as stock assessment expert in the project “Technical Assistance for Introduction of Stock Assessment to the Fisheries Management System of Turkey. EU project TR0702.02-02/001. European Aid /127296/D/SER/TR. Budget: Euro 1.020.000 Coordinatore Marco Girelli. AGROTEC SpA, Roma

07/2010 to 09/2010 Responsible of the collaboration program Mozambique-Sweden 2st period “Stock assessment to be implemented into management of artisanal fishery”, finaced by SIDA, Swedish International Development Cooperation Agency).

09/2012 to 12/2012 Member of the assessment team and responsible of the P2 for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the Astrid Fiske North Sea herring (Sea Food Certification International Lt).

09/2013 to 12/2014 Member of the review team for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the Norway Spring Spawning Herring Fishery (Det Norske Veritas Certification AS).

09/2013 to 12/2014 Member of the review team for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the Norway North Sea and Skagerrak herring fishery (Det Norske Veritas Certification AS).

1/2014 to 12/2014 Member of the assessment team and responsible of the P2 for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the Polish Eastern Baltic cod fisheries (Sea Food Certification International Lt).

1/2014 to 12/2014 Member of the review team and responsible of the P2 for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the Northern Ireland Pelagic Sustainability Group (NIPSG) Irish Sea herring (Sea Food Certification International Lt).

1/2014 to 12/2014 Member of the surveillance team and responsible of the P2 for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the Fiskbranschens Sweden Eastern Baltic Cod Fishery (Sea Food Certification International Lt).

1/2014 to 12/2014 Member of the surveillance team and responsible of the P2 for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the SPFPO Swedish North Sea herring (Sea Food Certification International Lt).

1/2014 to 12/2014 Member of the surveillance team and responsible of the P2 for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the Erzeugergemeinschaft der Nord- und Ostseefischer GmbH Eastern Baltic Cod Fishery (Sea Food Certification International Lt).

1/2015 to 12/2015 Member of the surveillance team and responsible of the P1 and P2 for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the SPFPO Swedish North Sea Herring Fishery (Acoura Marine).

1/2015 to 12/2015 Member of the surveillance team and responsible of the P1 for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the Scottish Pelagic Sustainability Group (SPSG) North Sea herring Fishery (Acoura Marine).

1/2015 to 12/2015 Member of the surveillance team and responsible of the P1 and P2 for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the Northern Ireland Pelagic Sustainability Group (NIPSG) Irish Sea Herring Fishery (Acoura Marine).

1/2015 to 12/2015 Member of the surveillance team and responsible of the P1 for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the UK Fisheries limited, Deutsche Fishfang Union GmbH & Co.KG & Doggerbank Seefischerei GmbH (ME Certification Ltd (MEC)).

1/2015 to 12/2015 Member of the assessment team and responsible of the P1 for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the UK Fisheries limited, Deutsche Fishfang Union GmbH & Co.KG & Doggerbank Seefischerei GmbH (ME Certification Ltd (MEC)).

1/2016 to 12/2016 Reviewer of the P1 for the Northern Ireland Pelagic Sustainability Group (NIPSG) Irish Sea herring assessment fishery for the MSC (Marine Stewardship Certificate) (Acoura Marine).

1/2016 to 12/2016 Reviewer of the P1 for the Scottish Fisheries Sustainable Accreditation Group (SFSAG) North Sea haddock fishery for the MSC (Marine Stewardship Certificate) (ME Certification Ltd (MEC)).

1/2016 to 12/2016 Member of the surveillance team and responsible of the P1 and P2 for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the SPFPO Swedish North Sea Herring Fishery (Acoura Marine).

1/2016 to 12/2016 Member of the surveillance team and responsible of the P1 and P2 for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the Northern Ireland Pelagic Sustainability Group (NIPSG) Irish Sea Herring Fishery (Acoura Marine).

1/2016 to 12/2016 Member of the assessment team and responsible of the P1 for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the UK

Fisheries/DFFU/Doggerbank NE Arctic cod, haddock and saithe; ME Certification Ltd (MEC)).

11/2017 STECF – Ad hoc contract on developing Management strategy evaluation (MSE) for “Adriatic small pelagics” for EU DG MARE.

8-10/2017 Co-responsible of the ICCAT GBYP 04/2017 Swedish Tagging Programme 2017, Atlantic-wide Research Programme on Bluefin Tuna.

1/2019 to 12/2019 Member of the surveillance team and responsible of the P1 and P2 for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the Northern Ireland Pelagic Sustainability Group (NIPSG) Irish Sea Herring Fishery (Acoura Marine).

1/2019 to 12/2019 Member of the assessment team and responsible of the P1 for the MSC (Marine Stewardship Certificate) of sustainable fisheries for the Northern Ireland Pelagic Sustainability Group (NIPSG) Irish Sea Herring Fishery (Acoura Marine).

7/2018 to 9/2018 Consultant for FAO-GFCM for the MSE (Management strategy Evaluation) of Black Sea turbot.

1/2019 to 3/2019 Consultant for FAO-GFCM for the assessment of Adriatic hake using Stock Synthesis assessment model.

Present position

Permanent position as researcher (Stock Assessment, Statistical analysis and modelling of fisheries data) at Swedish University for Agriculture (SLU, AQUA; Institute for Marine Research), Lysekil, Sweden.

Courses and certificates

8/1995 Certificate for scientific ringing of birds (A level) from the INFS (National Institute for Wild Fauna), Ozzano Emilia, Bologna, Italy.

2/2000 ICES Advanced Course in stock assessment at ICES for stock assessment coordinators, 1 week

11/2008 Course in R software at IMR, Lysekil Sweden, lecturer Dr. Valerio Bartolino.

2/2010 Course in spatial modelling analysis at the Imperial College London, Department of Life Sciences

11/2011 Course in FLR (Stock assessment in R) at IMR, Lysekil Sweden, lectures Ernesto Jardin.

06/2012 Course in ethics in animal welfare and experimental setup, lectures Katarina Cvek and Erik Petersson, SLU and University of Gothenburg.

09/2012 Course in Stock Synthesis software (SS3), lectures Ian Taylor and Allan Hicks, NOAA Seattle, USA held in IMR, SLU, Lysekil, Sweden.

03/2013 Certification as MSC Fishery Team Member Trainings for the Marine Stewardship Council.

9/2013 Course in Teaching at high education level, basic course, at SLU, Sweden.

9/2014 Course in Teaching at high education level, advanced course, at SLU, Sweden.

9/2016 Course in supervision at high education level, at SLU, Sweden.

10/2015 Course (Advance level I) in Stock Synthesis software (SS3), lectures Ian Stewart and Allan Hicks, NOAA Seattle, USA, held in Ponza Italy under the premises of Italian CNR.

10/2016 Course (Advance level II) in Stock Synthesis software (SS3), lectures Ian Stewart and Allan Hicks, NOAA Seattle, USA, held in Ponza Italy under the premises of Italian CNR.

9/2017 Course on critical thinking and criticality, at SLU, Sweden.

5/2018 Course (Advance level III) in Stock Synthesis software (SS3), lectures Ian Stewart and Allan Hicks, NOAA Seattle, USA, held in Ponza Italy under the premises of Italian CNR.

Techniques and skills acquired:

On board data collection, otholiths reading, stomach content analysis, zooplankton and nektobenthos sampling, zooplankton and nektobenthos processing, statistical analysis, large database analysis, modelling, stock assessment modelling, management strategy evaluations (MSE), fishery management.

Software:

- Database (Access)
- Excel (Windows), Word (Windows), Photoshop,
- SAS, Statistica, S-plus 2000, Arc-View, Eva, Surfer, FISAT, SPSS, R
- Ecopath
- Stock assessment software, SURBA
- FLR, a4a, EqSim
- Stock Synthesis

Reviews of scientific journal

Journal of Fish Biology (12)

Canadian Journal of Fisheries of Aquatic Science (7)
 Journal of Applied Ichthyology (21)
 Proceedings of Alaska Sea Grant Symposium (1)
 Marine Ecology Progress Series (37)
 Archive of Fishery and Marine Research (1)
 Fisheries Research (9)
 Fishery Bulletin (2)
 Journal of Ornithology (2)
 ICES Journal of Marine Science (13)
 Aquatic Living Resources (3)
 Bulletin of the Sea Fisheries Institute (1)
 CEFAS (1)
 Annales de Limnologie (1)
 Journal of Marine Biological Association UK (2)
 Polar biology (1)
 Marine Biology (2)
 Ecography (1)
 Annales de limnologie (1)
 Nature (2)
 Progress in Oceanography (2)
 Turkish Journal of Zoology (3)
 Hydrobiology (1)
 Ecography (1)
 Proceedings of Royal Society B (1)
 Experimental biology of fishes (1)
 Fisheries Oceanography (3)
 Advances in Oceanography and Limnology (2)
 Turkish Journal Fisheries of Aquatic Science (3)
 African Journal of Marine Science (1)
 Global change biology (3)
 Journal of Sea Research (1)
 Frontiers in Ecology and the Environment (1)
 Springerplus (1)
 Marine Policy (1)
 PLOS I (6)
 Chinese Journal of Oceanology and Limnology (1)
 Nature Scientific Reports (2)

Memberships, international committees and editorial boards

From 01/2002 and onwards, Member of the **MEPS** (*Marine Ecology Progress Series*) referees board.

From 03/2002 to 12/2018, Elected Member of the **STECF** (Scientific, Technical and Economic Committee for Fisheries) at DGMARE (Directorate of Fisheries), European Community.

From 03/2002 to 12/2011, Member of the **SGRN** (Study Group on Research Needs) at DGMARE (Directorate of Fisheries), European Community.

From 01/2002 to 12/2010, Member of the **HAWG** (Herring Assessment Working Group) at ICES.

From 01/2002 to 12/2005, Member of the **WGBIFS** (Working Group on Baltic International Fisheries Surveys) and **WGNSSK** (North Sea Demersal Assessment Working Group) at ICES.

From 01/2002 to 12/2005 Member of **WGBFAS** (Baltic Sea Assessment Working Group) and **SGROMAT** (Study Group on Growth and Maturity) at ICES.

From 01/2004 to 12/2007, Member of the **ACFM** (Advisory Committee for Fisheries Managers) at ICES.

From 10/2003 to 01/2007, Member of the **Baltic Committee** at ICES.

From 1/2005 to 12/2005, Member of the **RGSSDS** (Review of the Working Group of Southern Shelf Stock Assessment) at ICES.

From 01/2006 to 12/2007 Chairman of the ACFM sub-group **RGWGEF** (Review of the Working group on Elasmobranchs Fishes at ICES.

From 01/2006 to 12/2007 Chairman of the **STECF-SGBRE** (Evaluation of Protections plan of Italian Marine resources) at DGXIV (Directorate of Fisheries), European Commission.

From 1/2007 to 12/2008 Co-Chairman of the **WKHRBP** (Working Group on herring recruitment processes in the Baltic) at ICES.

From 1/2006 to 12/2006, Member of **WGMG** (Working Group on Assessment Methods Working Group), International Council for the Exploration of the Sea.

From 1/2007 to 12/2008, Member of **WKREFBAS** (Workshop on Reference Points in the Baltic Sea, at ICES.

From 1/2007 to 12/2008, Member of **WKHER** (Workshop on Herring Management Plans), at ICES.

From 1/2005 to 12/2005, Member of **SGMAB** (Study Group on Multispecies Assessment in the Baltic), at ICES.

From 1/2005 to 12/2006, Member of **SGBFFI** (Study Group on Fish and Fisheries in the Baltic), at ICES.

From 1/2009 to 12/2009 Co-Chairman of the **WKCSMPB** (Working Group on herring recruitment processes in the Baltic) at ICES.

From 1/2008 to 12/2015 Chairman of the **STECF-SGMED** (Working group on stock assessment in the Mediterranean Sea) at DGMARE (Directorate of Fisheries), European Commission.

From 1/2009 to 12/2009 Member of the **WKFMPDE** (Workshop on Fishery Management Plan Development and Evaluation) at ICES.

From 1/2009 to 12/2009 Member of the **WKROUND** (Workshop for Roundfish) at ICES.

From 1/2009 to 12/2012 Member of the **RG/ADG PAND** (Review and Advice drafting Group of the Working Group of Pandalus Assessment) at ICES.

From 1/2009 to 12/2010 Member of the **SGHIST** (Study Group on History in Fisheries) at ICES.

From 1/2009 and onwards Member of the **ACOM** (Advisory Committee for Managers) at ICES.

From 1/2010 to 12/2011 Member of the **RG/ADG WIDE** (Review and Advice Drafting Group of widely distributed stocks) at ICES.

From 1/2010 and onwards Member of the Editorial Board of the ***Journal Applied Ichthyology***.

From 1/2010 to 12/2010 Co-Chairman of the **WKSECRET** (Workshop on Including socio-Economic considerations into the Climate-Recruitment framework developed for clupeids in the Baltic Sea) at ICES.

From 1/2010 to 12/2010 Co-Chairman of the **WKEID** (Workshop on ecosystem indicators of discarding) at ICES.

From 1/2010 to 12/2010 Member of the **WKWATSUP** (Workshop on procedures to establish the appropriate level of the mixed herring TAC (Spring Western Baltic [WBSS] and Autumn Spawning North Sea [NSAS] stocks) in Skagerrak and Kattegat (Division IIIa)) at ICES.

From 1/2011 to 12/2011 Member of the **WKFRAME2** (Second Workshop on Implementing the ICES FMSY Framework) at ICES.

In 2/2011 Invited participant at the **STAR panel** of the Joint US-Canada Technical Review Panel for the Pacific Hake/Whiting Stock Assessment by the Center for Independent Expert (CIE).

From 1/2011 to 12/2014 Member of **STECF** Review of scientific advice expert group at DGMARE (Directorate of Fisheries), European Community.

From 01/2011 to 12/2012 Member of the **RGWGEF** (Review of the Working group on Elasmobranchs Fishes) at ICES.

From 1/2011 to 12/2011, Chairman of the **Theme Session D** (Linking the history to the present: understanding the history of fish, fisheries and management) at ICES Annual Science Conference, Gdansk, Poland, 19-23 September 2011.

From 01/2011 to 12/2014, Member of the **SGMED-Black Sea** (Working group on stock assessment in the Black Sea) at DGMARE (Directorate of Fisheries), European Community.

From 1/2012 to 12/2012 Member of the joint ICES-STEFCF Workshop on Management plans 2 (ICES – **WKMPROUNDMP** 2011, STECF – EWG 11-07)

From 1/2012 to 12/2012 Member of the **WKFRAME3** (Second Workshop on Implementing the ICES FMSY Framework) at ICES.

From 1/2012 and onwards Member of the Editorial Board of the *Journal ISRN Oceanography*.

From 1/2012 to 12/2012 Member of the **WKLIFE** (Workshop on the Development of Assessments based on LIFE history traits and exploitation characteristics) at ICES.

From 1/2012 to 12/2012 Co-Chairman of the **WKPESTO** (Workshop on the evaluation of plaice stocks) at ICES.

From 1/2012 to 12/2012 Member of the **ADGINTRO** (Advisory drafting group on the Introduction to ICES Advice) at ICES.

From 1/2012 to 12/2013 Member of the **WGNEW** (Working Group on Assessment of New MoU Species) and stock assessor of the witch flounder stock in the North Sea and turbot in IIIa at ICES.

From 1/2012 to 12/2013 Member of the **WGEF** (Working Group on Assessment of Elasmobranchs) at ICES.

From 1/2012 to 12/2012 Member of the **EWG 12-04** (International dimension) at DGMARE (Directorate of Fisheries), European Community.

From 1/2012 and onwards Member of the Editorial Board of the *Journal ISRN Oceanography*.

From 01/2012 to 12/2012 Member of the **ADGEF** (Advisory drafting group on the assessment of Elasmobranchs Fishes) at ICES.

From 01/2011 to 12/2011 Member of the **RGPOUT** (Review of the Working group on North Sea Norway Pout assessment) at ICES.

From 10/2012 to 10/2012, Chairman of the STECF ad-hoc **WG Reassessment of Greek stocks** at DGMARE.

From 10/2012 to 3/2014, Member of the Lake Victoria research Initiative (VICRES) Scientific Advisory Committee (**VICSAC**)

From 01/2013 to 12/2013 Member of the **WKG MSE** (Workshop on Guidelines for management strategy evaluations) at ICES.

From 01/2013 to 12/2013 Member of the **WKMSYREF** (Workshop to consider reference points for all stocks) at ICES.

From 01/2013 to 12/2014 Member of the **WKBALT** (Workshop of Benchmark Workshop on Baltic Multispecies Assessments) at ICES.

In 2/2013 Invited as reviewer of the assessment of US Caribbean queen triggerfish and blue tang by the Center for Independent Expert (**CIE**).

From 6/2013 Member of the United Nations World Ocean Assessment (Regular Process for Global Reporting and Assessment of the State of the Marine Environment Including Socioeconomic Aspects), **UN**.

From 8/2013 Member of the **IUCN** (International Union for Conservation of Nature) Shark Specialist Group.

From 1/2014 to 12/2014 Member of the **EWG 14-01** (Landings obligations) at DGMARE (Directorate of Fisheries), European Community.

From 01/2014 to 12/2014 and from 01/2016 to 01/2017 Member of the **ADGNS** (Advisory drafting group on the North Sea stocks) at ICES.

In 8/2014 Invited as reviewer of the assessment of US Caribbean red hind by the Center for Independent Expert (**CIE**).

From 01/2014 to 12/2014 Member of the **WKMSYREF3** (Workshop on to consider the basis for F_{MSY} ranges for all stocks) at ICES.

From 01/2015 to 12/2015 Member of the **WKBALTCOD** (Benchmark Workshop on Baltic cod stocks) at ICES.

From 01/2015 to 12/2015 Member of the **WKNSEA** (Benchmark Workshop on North Sea stocks) at ICES.

From 01/2015 to 12/2015 Member of the EWG 15-06 (Standardisation stock assessment models for Mediterranean Sea) at **DGMARE** (Directorate of Fisheries), European Community.

From 01/2016 to 12/2017 Member of the Benchmark Workshop on *Pandalus borealis* in Skagerrak and Norwegian Deep Sea (**WKPAND**) at ICES

From 01/2015 to 12/2017, Chairman of the **SGMED-Black Sea** (Working group on stock assessment in the Black Sea) at DGMARE (Directorate of Fisheries), European Community.

From 01/2015 to 12/2017 Chairman of the **ADGEF** (Advisory drafting group on the Elasmobranchs stocks) at ICES.

From 01/2015 to 12/2015, Member of the EU delegation at the 18th Scientific Committee of the Indian Ocean Tuna Commission (**IOTC**), November 2015, Bali Indonesia.

From 04/2016 to 12/2018, vice-chairman of the **STECF** (Scientific, Technical and Economic Committee for Fisheries) at DGMARE (Directorate of Fisheries), European Community.

From 1/2016 to 12/2017, Member of the **IOTC** (Indian Ocean Tuna Commission) working party on neritic tunas, 19-24 June 2016, Victoria, Seychelles.

From 1/2016 to 12/2018, Member of the **IOTC** (Indian Ocean Tuna Commission) working party on tropical tunas, November 2016, Victoria, Seychelles.

From 1/2016 to 12/2016, Member of the **IOTC** (Indian Ocean Tuna Commission) working party on data and statistics, November 2016, Victoria, Seychelles.

From 1/2016 to 12/2018, Member of the EU delegation at the 18th Scientific Committee of the Indian Ocean Tuna Commission (**IOTC**), December 2016, Victoria, Seychelles.

From 01/2016 to 12/2018 Stock assessor of the Northern shrimp in North Sea and Skagerrak at the **NIPAG** (Joint NAFO/ICES *Pandalus* Assessment Working Group) at ICES.

From 01/2017 to 12/2018 Chair of the Benchmark workshop on Seabass (**WKBASS**) at ICES.

From 01/2018 to 12/2018 member of the Advice Drafting Group on assessment of the long-term management strategy for Celtic Sea herring (**ADGMPCSHER**) at ICES.

From 01/2018 to 12/2018 member of the EU delegation at the 14th Science Committee of the Western and Central Pacific Fisheries Commission (**WCPFC**).

Funded projects

9/1997 to 8/1999 EU project “Changes in spatial distribution and stock components of Baltic herring during the last decade” supported by a “Marie Curie” grant from EC at IMR (Institute for Marine Research) of Lysekil, Sweden (~50000 €).

01/2010 to 12/2011 Project “Waking the deads” on the reconstruction of fish community and fisheries on the Swedish west coast and the Baltic Sea during the last 150 years. The project is financed by the Swedish Department of Nature (~450000 €).

07/2010 to 08/2010 SIDA Project (Stock assessment to be implemented into management of artisanal fishery in Mozambique) under SIDA (Swedish International Development Cooperation Agency) umbrella (~15000 €).

04/2010 to 12/2013 Chief responsible for the Ponza Island ringing station within the “Flexibility and constraints in animal movement patterns: ecology, evolution and annual cycles” coordinated by the CEES (Center for Ecological and Evolutionary Synthesis), Department of Biology, University of Oslo, Norway in collaboration with the Max Plank Institute, München, Germany and the University of Ferrara, Italy (~80000 €).

01/2017 to 12/2017 Responsible for SLU of the HAV financed project “Global program” aimed to strength the role of Sweden and its contribution to the management of fish stocks in developing countries (~60000 €).

01/2017 to 12/2017 Co-responsible of the Electronic tagging of adult bluefin tunas by sport fishery or hand lines in the North Sea, off the coast of Sweden and/or other countries. (ICCAT GBYP 04/2017 Tagging Programme 2017, Atlantic-wide Research Programme on Bluefin Tuna. (~65000 €).

01/2018 to 12/2018 Responsible for SLU of the HAV financed project “Global program” aimed to strength the role of Sweden and its contribution to the management of fish stocks in developing countries (~65000 €).

1/2018 Awarded of the grant within the SLU “Satsning på global utveckling” (Investing in Global Development), “Tag Along Application”, with a project titled “Capacity building at SLU, Sweden and IIP, Mozambique on the use of tagging information for the sustainable management of fisheries resources” (~4000 €).

Academic activity

From 1/2002 to 12/2006 Lecture and co-responsible in the “Fisheries Ecology” course at the University of Gotland, Sweden (**one semester and 3 hours lectures each year; 15 hours in total; lecture organiser**).

From 1/2005 to 12/2010 Lecture in the “Fisheries Ecology and management of marine ecosystem” course at the University of Göteborg, Sweden (**one semester and 4 hours lectures each year; 20 hours in total; lecture organiser and participation in the examination**).

From 1/2005 to 12/2006 Lecture in the “Fisheries Ecology and management of marine ecosystem” course at the University of Stockholm, Sweden (**one semester and 2 hours lectures each year; 8 hours in total**).

From 7/2008 to 9/2008 Supervisor of master student (Magdalena Linder; “Reconstructing historical trends of turbot in the Kattegat-Skaggeak”, 20 points work) at the University of Göteborg, Sweden.

From 5/2010 to 6/2010 Stock assessment Expert of the Technical Assistance for Introduction of Stock Assessment to the Fisheries Management System of Turkey - EuropeAid/127296/D/SER/TR (“Project”). Responsible for a 5 days (**40 hours in total**) training course on DCR requirements and sampling strategy, concepts behind stock assessment, biometric and biological data collection, catch and effort statistics and otoliths readings.

In September 2013, lecturer for the 3 days course in Stock Assessment at the Croatian Institute of Oceanography and Fisheries in Split (Croatia) under ADRIAMED project umbrella.

In 2012 co-assistant of the work of a post-doc researcher (Dr. Andreas Sundelöf) at the Institute of Marine Research in Lysekil (SLU) in the project Waking the Deads.

Co-supervisor of Eleni Theofania Skorda for the master thesis with the title “Stomach sampling and analyses of shrimp predators in Skagerrak”. A thesis submitted in fulfilment of the requirements for the degree of Master of Science in Engineering in Aquatic Science and Technology, DTU Aqua, July 2, 2018

Research information activity

From 2002 and onwards several (more than 20 occasions) participation as scientific divulgator for TV4, Göteborg Posten, Aftonbladet, Radio P4, radio Goteborg EKO, Swedish radio P1, Italian RAI and many others.

From 2002 to 2012 Contact person within Swedish National Board of Fisheries for divulgation of the status of exploited fisheries resources in the North Atlantic, including Swedish waters.

List of publications:

1. Colloca, F., Gentiloni, P., Agnesi, S., Schintu, P., **Cardinale, M.**, Belluscio, A. and Ardizzone, G.D., (1996). Biology and stock assessment of *Aristeus antennatus* in the Central Tyrrhenian Sea. *Biol. Mar. Mediter.*, 5(2): 218-231.
2. **Cardinale, M.**, Colloca, F. and Ardizzone, G.D., (1997). Feeding ecology of Mediterranean razorfish (*Xyrichtys novacula*) in the Tyrrhenian Sea (Central Mediterranean Sea). *J. Appl. Ichthyology*, 13: 105-111.
3. Colloca, F., **Cardinale, M.** and Ardizzone, G.D., (1997). Biology and population dynamic of *Lepidotrigla cavillone* in the Central Mediterranean Sea. *Fishery Research*, 32: 21-32.
4. **Cardinale, M.**, Colloca, F. and Ardizzone, G.D., (1998). Growth and reproduction of *Xyrichtys novacula* (Pisces: Labridae) in the Mediterranean Sea. *Scientia Marina*, Vol 62 (3): 193-201.

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104. A. Ferretti, N.C. Rattenborg, T. Ruf, S.R. McWilliams, **M. Cardinale**, L. Fusani (2019). Sleeping unsafely tucked in: the sleep dilemma of nocturnal migratory songbirds. *Current Biology*, Volume 29, Issue 16, 19 August 2019, Pages 2766-2772.e4.
105. **Cardinale, M.**, Stefano Mariani, and Joakim Hjelm 2019. Comments to Svedäng, H., Barth, J. M. I., Svenson, A., Jonsson, P., Jentoft, S., Knutsen, H., and Andre', C. Local cod (*Gadus morhua*) revealed by egg surveys and population genetic analysis after longstanding depletion on the Swedish Skagerrak coast. – *ICES Journal of Marine Science*, doi:10.1093/icesjms/fsz095.
106. **Cardinale, M.**, Carpi, P. and Scarcella, G. 2019. Reply to Dörner, H. and Casey, J., 2018. Commentary: The Saga of the Management of Fisheries in the Adriatic Sea: History, Flaws, Difficulties, and Successes toward the Application of the Common Fisheries Policy in the Mediterranean. *Front. Mar. Sci.*, doi: 10.3389/fmars.2019.00296.
107. Ivan Maggini, Marta Trez, **Massimiliano Cardinale**, Leonida Fusani, 2019. Stopover dynamics of 12 passerine migrant species in a small Mediterranean island during spring migration. Submitted to IBIS.
108. A. Ferretti, Leonida Fusani, Ivan Maggini, Sara Lupi, **Cardinale, M.**, 2019. The amount of available food affects diurnal locomotor activity in migratory songbirds during stopover. Conditionally accepted to Scientific Reports.

Technical reports, working report and working documents

1. Arrhenius, F. Håkansson, N., **Cardinale, M.** and Bethke, E. 1998. Intercalibration of the Sa-values between R/V Argos and Solea" Working paper for ICES Study Group on Baltic Acoustic Data.
2. Hjelm, J., Simonsson J. and **Cardinale M.** 2004. Spatial distribution of cod in the Baltic Sea in relation to abiotic factors - a question of fish-age and area. *ICES CM* 2004/L:16.
3. Hansson, M & **Cardinale, M.** 2005. Estimating sample precision and optimum sample size for stock assessment: a case study with Eastern Baltic cod. WD 2 at WGBFAS 2005.
4. **Cardinale, M.** 2006. Effect of mesh size, subdivision and quarter on the proportion and weight at age of herring in IIIa WD 4 at WGBFAS 2006.
5. **Cardinale, M.**, Storr-Paulsen, M., Ringdal, K., Jørgensen. O. 2009. Using GRASP to estimate Kattegat cod stock spatial distribution and fishable biomass from ad-hoc fishery survey. WD 2 at WKROUND 2009.
6. Svedäng, H., and **Cardinale M.** 2008. Modeling of IBTS and Ancylos survey age indices for improvement of the assessment of Kattegat cod (*Gadus morhua*).

Working document to the ICES Working Group on Baltic Fisheries Assessment, Copenhagen, 8–11 April (2008).

7. **Cardinale M.**, Raetz H.-J. & Cheilari A. 2008. Scientific, Technical and Economic Committee for Fisheries (STECF) - Report of the SGMED-08-04, Working Group on the Mediterranean - Part I. (Office for Official Publications of the European Communities, Luxembourg, pp. 529. ISBN 978-92-79-10939-3.
8. **Cardinale M.**, Raetz H.-J. & Cheilari A. 2009. Scientific, Technical and Economic Committee for Fisheries (STECF) - Report of the SGMED-09-02, Working Group on the Mediterranean - Part I. (Office for Official Publications of the European Communities, Luxembourg, ISBN 978-92-79-14363-2, JRC55710, 844 pp.
9. **Cardinale M.**, Raetz H.-J. & Cheilari A. 2009. Scientific, Technical and Economic Committee for Fisheries (STECF) - Report of the SGMED-09-03, Working Group on the Mediterranean - Part II. (Office for Official Publications of the European Communities, Luxembourg, ISBN 978-92-79-18754-4, JRC62020, 850 pp.
10. **Cardinale M.**, Raetz H.-J. & Cheilari A. 2010. Scientific, Technical and Economic Committee for Fisheries (STECF) - Report of the SGMED-10-02, Working Group on the Mediterranean - Part I. (Office for Official Publications of the European Communities, Luxembourg, ISBN 978-92-79-18754-4, 1077 pp.
11. **Cardinale, M.**, Chacate, O. and Casini, M. 2010. Stock assessment to be implemented into management of artisanal fishery in Mozambique. SIDA internal project report, September 2010.
12. **Cardinale M.**, Raetz H.-J. & Cheilari A. 2010. Scientific, Technical and Economic Committee for Fisheries (STECF) - Report of the SGMED-10-03, Working Group on the Mediterranean - Part II. (Office for Official Publications of the European Communities, Luxembourg), ISBN 978-92-79-20182-0, <https://stecf.jrc.ec.europa.eu/reports/medbs>.
13. Scott, F., Osio, G. and **Cardinale, M.** 2011. Comparison of age slicing methods. In Final. Report of Working Group on the Assessment of Mediterranean Sea stocks – part 2, (STECF-11-14). EUR 25053.
14. **Cardinale M.**, Raetz H.-J. & Aymen C., 2011. Scientific, Technical and Economic Committee for Fisheries (STECF) - Report of the Assessment of Mediterranean Sea stocks - part II (STECF-11-14) (Publications Office of the European Union; Luxembourg, ISBN 978-92-79-22171-2.
15. Lövgren, J., and **Cardinale, M.**, 2012. Assessment of the Greater weever (*Trachinus draco*) in the Kattegat using a length based pseudo-cohort analysis Institute of Marine Research, SLU AQUA for the Swedish Agency of Water and the Swedish Department of Agriculture.

16. Vinther, M., Jonsson, P., Eero, M., Sköld, M., **Cardinale, M.**, Lövgren, J., and Stoor-Paulsen, M., 2011. Fishing mortality of cod in the Kattegat 2007-2010, estimated from spatial and temporal overlap of stock distribution and effort data. Working Document at the ICES-STEFCF Workshop on Management plans 2 (ICES – WKMPROUNDMP 2011, STECF – EWG 11-07).
17. **Cardinale M.** & Doerner H 2012. Scientific, Technical and Economic Committee for Fisheries (STECF) 2012. Opinion by written procedure - Evaluations of Slovenian and Spanish Management Plans (STECF-OWP-12-02) (eds.). Publications Office of the European Union, Luxembourg, EUR 25260 EN, JRC 69426, 14 pp.
18. **Cardinale M.**, Rätz H.-J. & Charef A. 2012. Scientific, Technical and Economic Committee for Fisheries (STECF) – Report of the Assessment of Mediterranean Sea stocks (STECF 12-03), part I. (eds). Publications Office of the European Union, Luxembourg, EUR 25309 EN, JRC 70907, 404 pp.
19. **Cardinale M.**, Osio G.-C. & Charef A. 2012. Scientific, Technical and Economic Committee for Fisheries (STECF) – Report of the Assessment of Mediterranean Sea stocks – (STECF 12-19), part II. (eds.. Publications Office of the European Union, Luxembourg, EUR 25602 EN, JRC 76735, 502 pp.
20. **Cardinale M.** & Osio G.-C., 2012. Scientific, Technical and Economic Committee for Fisheries (STECF) – Assessment of *Merluccius merluccius*, *Mullus barbatus*, *Mullus surmuletus*, *Boops boops*, *Spicara smaris/Spicara flexuosa* and *Nephrops norvegicus* in Aegean and Ionian waters (STECF 12-21). (eds.. Publications Office of the European Union, Luxembourg, EUR 25635 EN, JRC 77177, 341 pp.
21. **Cardinale M.** & Osio C. 2013. Scientific, Technical and Economic Committee for Fisheries (STECF) – Report of the Assessment of Mediterranean Sea stocks – (STECF 13-09) part I, (eds. 2013. Publications Office of the European Union, Luxembourg, EUR 25602 EN, JRC 76735, 502 pp.
22. Waking the dead: SLU AQUA publication by A. Sundelöf, **M. Cardinale** and V. Bartolino 2013.
23. **Cardinale M.** & Osio C. 2013. Scientific, Technical and Economic Committee for Fisheries (STECF) – Scientific, Technical and Economic Committee for Fisheries (STECF) – 2013 Assessment of Mediterranean Sea stocks part II (STECF-14-08). 2013. Publications Office of the European Union, Luxembourg, EUR 26614 EN, JRC 89860, 364 pp.
24. **Cardinale M.** & Damalas D. 2014. Scientific, Technical and Economic Committee for Fisheries (STECF) – Assessment of Mediterranean Sea stocks - part 1 (STECF-14-17. 2014. Publications Office of the European Union, Luxembourg, EUR 26955 EN, JRC 93120, 393 pp.
25. **Cardinale M.**, Osio, C. & Damalas D. 2014. Scientific, Technical and Economic Committee for Fisheries (STECF) – Mediterranean Assessments part 2 (STECF-15-

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26. **Cardinale M.**, Damalas D. & Osio, C. 2015. Scientific, Technical and Economic Committee for Fisheries (STECF) – Small pelagic stocks in the Adriatic Sea. Mediterranean assessments part 1 (STECF-15-14). 2015. Publications Office of the European Union, Luxembourg, EUR 27492 EN, JRC 97707, 52 pp.
 27. **Cardinale M.**, Damalas D. & Osio, C. 2015. Scientific, Technical and Economic Committee for Fisheries (STECF) – Mediterranean assessments part 1 (STECF-15-18). 2015. Publications Office of the European Union, Luxembourg, EUR 27638 EN, JRC 98676, 410 pp.
 28. **Cardinale M.**, Damalas D. & Osio, C. 2015. Scientific, Technical and Economic Committee for Fisheries (STECF) – Black Sea assessments (STECF-15-16). 2015. Publications Office of the European Union, Luxembourg, EUR 27517 EN, JRC 98095, 284 pp.
 29. **Cardinale M.**, Druon, J.-N. & Mannini, A., 2017. Scientific, Technical and Economic Committee for Fisheries (STECF) – Black Sea assessments (STECF-17-14). 2017. Publications Office of the European Union, Luxembourg, ISSN 1831-9424, 498 pp.
 30. **Cardinale M.** 2017. Technical report of the Request for services – 1739 - STECF – Ad hoc Contract on "Management Strategy Evaluation (MSE) of Adriatic small pelagics" for EU DG MARE.
 31. Fernandez, C., **Cardinale M.**, Eigaard, O.R., Søvik, G., 2017. Technical report of EU-Norway request to ICES on a long term management strategy (MSE) for *Pandalus* in the Skagerrak and the Norwegian deep for ICES.
 32. MacKenzie BR, Aarestrup K, **Cardinale M.**, Casini M, Harkes I, Quilez-Badia G, Sundelöf A 2017. Final project report: Electronic tagging of adult bluefin tunas by sport fishery or hand lines in the North Sea, off the coast of Sweden and/or other countries. (ICCAT GBYP 04/2017 Tagging Programme 2017, Atlantic-wide Research Programme on Bluefin Tuna. Kongens Lyngby.
 33. **Cardinale M.** 2018. Technical report of the Contract on "Expert on management strategy evaluation for turbot fisheries in the Black Sea" for GFCM-FAO, Programme/Project Number: MTF/INT/943/MUL - Baby 27.
 34. Agurtzane Urtizberea, Dan Fu, Gorka Merino, Richard Methot, **Massimiliano Cardinale**, Henning Winker, John Walter, Hilario Murua 2019. IOTC-2019-WPTT21-50. PRELIMINARY ASSESSMENT OF INDIAN OCEAN YELLOWFIN TUNA 1950-2018 (STOCK SYNTHESIS, V3.30)
 35. Henning Winker, John Walter, **Massimiliano Cardinale**, and Dan Fu 2019. A multivariate lognormal Monte-Carlo approach for estimating structural uncertainty about the stock status and future projections for Indian Ocean Yellowfin tuna

36. Felipe Carvalho, Henning Winker, Laurence Kell, Dean Courtney, **Massimiliano Cardinale**, Dawit Y. Ghebrehiwet, Michael Schirripa, Maia Kapur, Kevin R. Piner, and Mark N. Maunder. A cookbook for using model diagnostics in integrated stock assessments. CAPAM, November 2019.
- 37.

Posters, oral presentation and invited lectures

1. **Cardinale, M.**, Arrhenius, F. and Johnsson, B. Potential use of otolith weight for the determination of age structure of Baltic cod (*Gadus morhua*) and plaice (*Pleuronectes platessa*). Oral presentation at the 2nd International Symposium on Fish Otolith Research and Application, Bergen, Norway, 20-25 June 1998, poster session.
2. **Cardinale, M.**, Spatial and temporal variability of Baltic zooplanktivores fishes related to prey abundance and distribution in the sea. PhD plan presentation at the Kristineberg Marine Research Station, Göteborg University, 27 March 1998.
3. **Cardinale, M.**, The reproduction and the sexual inversion process of *Xyrichthys novacula* (Pisces: Labridae) in the Mediterranean Sea. Invited lecture at the Conference at the F.O.S. (Laboratory of Physiopathology of Superior Institute of Health, Rome, 23 May, 1999.
4. **Cardinale, M.** and Arrhenius, F. Modelling the fish age-otolith weight relationship: towards a new approach to estimate fish population structure? Oral presentation at the annual Swedish Fish Biology symposium, Kristineberg Marine Research Station, Göteborg University, 10 November 1999.
5. **Cardinale, M.** and Arrhenius, F. The influence of stock structure and environmental conditions on the recruitment process of Baltic cod estimated using a Generalized Additive Model (GAM). Oral presentation at the Young Scientist Conference on Marine Ecosystems Perspectives, ICES symposium, Gillelaj, Denmark, 23-27 November 1999.
6. **Cardinale, M.** and Arrhenius, F. Is the decrease in growth rate of Atlantic herring in the Baltic Sea density-dependent? A geostatistical application. Oral presentation at the Herring 2000, Alaska Sea Grant Symposium, Anchorage, Alaska, 23-26 February 2000.
7. **Cardinale, M.** and Arrhenius, F. Something, somewhere went wrong. Oral presentation at the Fisheries Stock Assessment: tools for the future. Symposium, Institute for Marine Research, National Board of Fisheries, Lysekil, 29 March 2000.
8. **Cardinale, M.** Otolith weight-age relationship-can weight be used for ageing? Invited lecture at the FABOSA workshop on Fish Ageing by Otolith Shape, Älvkarleby, Sweden 25-27 May 2000.

9. **Cardinale M.** GAM and Fisheries: going to the future, looking at the past. Invited lecture at the Institute of Freshwater research, National Board of Fisheries, Drottningholm, Stockholm, Sweden 15 December 2000.
10. **Cardinale, M.** Application of GAMs on reproductive data. Invited lecture at the Symposium "Modern approaches to assess maturity and fecundity of warm- and cold-water fish and squids. Bergen 4-7 September 2001.
11. **Cardinale, M.** Something, somewhere went wrong. The mismanagement of fisheries resources, the collapse of Atlantic cod. Invited lecture at the Institute of Zoology, Department of Human and Animal Biology, University "La Sapienza" of Rome. Rome 25 March 2002.
12. **Cardinale, M.,** Arrhenius, F., Casini M., Håkanson, N., Diel variability of spatial distribution of zooplanktivorous fish related to feeding in the Baltic Sea. Poster presented at the 6th ICES Acoustic Symposium, Montpellier 10-14 June 2002.
13. **Cardinale, M.** History of fisheries science. Invited lecture within the course of "Fisheries Ecology" for the University of Gotland, Lysekil September, 2002 and 2003.
14. **Cardinale, M.** Life histories traits and management of North Atlantic Gadoids. Oral presentation at Tjärno Marine Research Station, Göteborg University, 04 April 2003.
15. **Cardinale, M.** Fish fauna in the transition area of Kattegat and Skagerrak Invited lecture at University of Riga within the "Fisheries Ecology". May 2003.
16. **Cardinale, M.** and Hjelm, J. Environmental stochasticity and recruitment anomalies of gadoids in the North Atlantic. Oral presentation at the ICES Annual Science Conference, Tallin, 24 September 2003.
17. **Cardinale, M.** and Hjelm, J. Effect of climate on recruitment success of clupeid stocks in the North Atlantic. Oral presentation at the ICES Annual Science Conference, Vigo, 22 September 2004.
18. **Cardinale, M.** From data collection to management of commercial fisheries. Invited lecture at the 2007 Indonesian Conference on research needs and research results for captive fisheries, December 2007, Bogor, Indonesia.
19. **Cardinale, M.** Stock assessment project on small pelagic fish in the Java Sea Invited lecture at the University of Jakarta, May 2008.
20. **Cardinale, M.** et al. Results of the stock assessment of the small pelagic fish in the Java Sea. Invited Lecture at the Indonesian-Australian Conference on Red Snapper, Jakarta, December 2008.
21. **Cardinale, M.** et al. Historical spatial distribution of plaice in the Kattegat-Skagerrak. Oral presentation at Ocean Past Conference II, Vancouver, 25-28 May 2009.

22. **Cardinale, M.** Shifting baselines in long-term management plans. Invited lecture at the EU-Norway Seminar on long-term management plans, Stockholm 15-16 September 2009.
23. **Cardinale, M.** et al. Results of the stock assessment of the small pelagic fish in the Java Sea. Invited Lecture at the RIMF, Pekalongan, Indonesia, November 2009.
24. **Cardinale, M.** et al. Stock assessment and management of the small pelagic fish in the Java Sea. Invited Lecture at the Annual Indonesian Conference for the conservation of aquatic living resources, Jakarta, Indonesia, December 2009.
25. **Cardinale, M.** et al. Effect of environmental variability and spawner characteristics on the recruitment of Baltic herring stocks. Invited lecture at the Workshop on Baltic herring, "Herring in the middle", 15-19th February 2010, Charlottenlund Technical University of Denmark, National Institute of Aquatic Resources, Denmark.
26. **Cardinale, M.** et al. reconstructing historical fish community and fisheries in the Kattegat-Skaggeak. Invited Lecture at the Ecosystem Approach Conference in Gothenburg, September 2010, Sweden.
27. **Cardinale, M.** et al. reconstructing historical fish community and fisheries in the Kattegat-Skaggeak. Invited Lecture at the Maritime History Conference at the Gothenburg University, November 2010, Sweden.
28. **Cardinale, M.** Status of Mediterranean Resources. Invited as chairman of the STECF-SGMED to present a lecture at the EU Science seminary "State of European Fish Stocks in 2011", Brussels September 2011.
29. **Cardinale, M.** and Hjelm, J., Effects of an L_{opt} harvesting regime in the Baltic cod fisheries. Presentation the ICES-STECF Workshop on Management plans 2 (ICES – WKMPROUNDMP 2011, STECF – EWG 11-07).
30. **Cardinale, M.** Status of Mediterranean Resources. Invited as chairman of the STECF-SGMED to present a lecture at the EU Science seminary "State of European Fish Stocks in 2012", Brussels September 2012.
31. **Cardinale, M.** Status of Mediterranean Resources. Invited as chairman of the STECF-SGMED to present a lecture at the EU Science seminary "State of European Fish Stocks in 2013", Brussels September 2013.
32. **Cardinale, M.** Status of Mediterranean Resources. Invited as chairman of the STECF-SGMED to present a lecture at the EU Science seminary "State of European Fish Stocks in 2013", Brussels September 2014.
33. **Cardinale, M.** Status of Mediterranean Resources. Invited as chairman of the STECF-SGMED to present a lecture at the EU Science seminary "State of European Fish Stocks in 2013", Brussels July 2015.

34. Margit Eero and **Cardinale, M.** Accounting for rapid changes in stock productivity in fisheries management advice. ICES Annual Science Conference, Goteborg, 9-13 September 2019.