

CURRICULUM VITAE

1. GENERAL

Summary of expertise

Fisheries science and advice, ecosystem-based management, fish biology, population ecology, food-webs, biodiversity, human impacts, climate changes.

1.1 PERSONAL DETAILS

Name: Michele Casini

Birth date and place: 1971-04-21, Bologna (Italy)

Citizenships: Italian and Swedish

E-mails: m.casini@unibo.it; michele.casini@slu.se

ORCID iD: 0000-0003-4910-5236

ResearchGate: https://www.researchgate.net/profile/Michele_Casini

Loop Research network Frontiers: <https://loop.frontiersin.org/people/124647/overview>

1.2 LANGUAGES

Italian (mother tongue), English (fluent), Swedish (fluent), French and Latvian (basic).

1.3 EDUCATION

March 2006: **Doctoral Degree in Marine Ecology**, Gothenburg University, Sweden. Thesis title: “Resource utilisation of clupeid fish in the Baltic Sea: patterns, mechanisms and ecological implications”.

December 1998: **Master Degree in Natural Sciences** (4 years), University of Bologna, Italy. Thesis title: “Study, through acoustic methods, of AirGun effects on small pelagic fish”. Project performed at the National Research Council (CNR), Ancona, Italy.

1.4 EMPLOYMENTS

November 2019-present: permanent position as **Full Professor in Ecology** at the University of Bologna, Department of Biological, Geological and Environmental Sciences, Italy.

March 2015-present: permanent position as **Full Professor in Marine Ecology with orientation to fisheries management** at the Swedish University of Agricultural Sciences, Department of Aquatic Resources, Sweden.

December 2012-March 2015: **Associate Professor in Biology/Ecology** at the Swedish University of Agricultural Sciences, Department of Aquatic Resources, Institute of Marine Research, Lysekil, Sweden.

July 2011-December 2012: permanent position as **Researcher** at the Swedish University of Agricultural Sciences, Department of Aquatic Resources, Institute of Marine Research, Lysekil, Sweden.

July 2006-June 2011: permanent position as Researcher in pelagic stock assessment at the Swedish Board of Fisheries, Institute of Marine Research, Lysekil, Sweden.

February 2009 and August 2010: Lecturer for the Master Course “Aquatic Biology and Coastal Ecosystems” in the module “Fisheries Biology and Fisheries Resources”, Mondlane University of Maputo, Mozambique. Funded by SIDA (Swedish International Development Cooperation Agency) through the Royal Swedish Academy of Sciences.

March 2004-April 2006: Biological Analyser at the Gothenburg University and Swedish Board of Fisheries, Sweden: EU projects BECAUSE (Critical Interactions Between Species and their Implications for a Precautionary Fisheries Management in a Variable Environment - a Modelling Approach) and EFIMAS (Operational Evaluation Tools for Fisheries Management Options), EU 6th Framework Programme.

October 2001-March 2004: Research Assistant at the Swedish Board of Fisheries, Institute of Marine Research.

May 1999-May 2001: Internship granted by the Italian Ministry of Agricultural Politics. Laboratory of Marine Biology and Fisheries of Fano, University of Bologna, Italy.

2. SCIENTIFIC ACTIVITIES

2.1 PROJECTS and RESEARCH GRANTS

EU

Project “Decarbonisation of the fishing fleet in the Mediterranean and Black Sea (DecarboNT)”, funded by EU DG/Mare, “Framework Contract for the provision of scientific advice for the Mediterranean and the Black Sea”, EASME/EMFF/2020/OP/0021 (2024-2025). Principal Investigator for the University of Bologna.

Project “Sampling, management and elaboration of fisheries and aquaculture data”, EU Data Collection Framework, funded by the European Commission through the Italian Ministry of Agriculture, Food Sovereignty and Forests (2022-2025). Principal Investigator for the University of Bologna (within the National Inter-University Consortium for Marine Sciences).

Project “Support coherent and coordinated assessment of biodiversity and measures across Mediterranean for the next 6-year cycle of MSFD implementation (ABBIOMED)”, funded by EU DG/Environment (DG ENV/MSFD2020, 2021-2023). Principal Investigator for the University of Bologna.

Project “Integrating spatial processes into ecosystem models for sustainable utilization of fish resources (INSPIRE)”, funded by the EU 7th Framework Programme and Baltic Sea national funding institutions (BONUS, 2014-2017). Coordinator of the Work Package 1 (Spatial distributions) and Principal Investigator for SLU.

Project “Study on stomach content of fish to support the assessment of good environmental status of marine food webs and the prediction of MSY after stock restoration”. Funded by DG MARE (2013-2014). Swedish Coordinator.

Research Councils

Project “Fish interactions in the marine benthic habitat: a knowledge gap in Baltic Sea fish ecology and multispecies fisheries management (BENTHFISH)”, funded by The Swedish Research Council Formas (2019-2021). Project main applicant and leader.

Project “Losing track of time: dubious age determination of Baltic cod, probable causes and promising solution (LOSTINTIME)”, funded by The Swedish Research Council Formas (2016-2018). Participant.

Project “Towards sustainable fisheries by ecosystem-based management”, funded by The Swedish Research Council Formas (2013-2015). Principal Investigator for SLU.

Private foundations

Project “Tagging Baltic cod (TABACOD)” funded by BalticSea2020 foundation (2016-2019). Project Deputy Coordinator, Coordinator of Work Package 3 (Applications into stock assessment) and Principal Investigator for SLU.

Project “Advantages for fishing commercially sticklebacks: improvement in coastal populations, decrease in eutrophication symptoms and fish meal production”. Funded by Baltic 2020 Foundation (2015). Participant.

Project ”Pilot study to develop cod fishery in the Baltic Sea with a size-selective fishery”, funded by Baltic 2020 (2013-2015). Participant.

Governmental

Project “Shifting the hypoxia paradigm – new directions to explore the spread and impacts of ocean/Great Lakes deoxygenation”, funded by the National Science Foundation (NSF), USA (2020-2022). SLU co-Principal Investigator.

Project "Torskmärkning (Tagging of Baltic cod II (TABACOD II)", funded by the Swedish Agency for Marine and Water Management (January-December 2017). Project Coordinator.

Project “Förbättrat förvaltning i Östersjön” (Improved management in the Baltic Sea), funded by the Swedish Agency for Marine and Water Management (2014-2016). Project co-leader.

Project “Ecosystem-based approach for developing and testing pelagic food web indicators”, funded by the Swedish Environmental Protection Agency. Call: Good Environmental Status in Sweden’s Marine Waters (2014-2016).

Project “Development of ecosystem state indicators for the Baltic Sea pelagic ecosystem”, addressing the EU MSFD, funded by the Swedish Agency for Marine and Water Management (2013-2016). Project Coordinator.

Project “Planktivore management: linking food web dynamics to fisheries in the Baltic Sea (PLAN FISH)”, funded by the Swedish Government (2008-2013). Coordinator of the Work package 1 (Natural patterns and field experiment).

Inter-governmental

Project “Tagging and migration of bluefin tuna in Nordic waters” funded by the Nordic Council of Ministers (2018). Participant.

Project “Tender Offer for ICCAT Bluefin Tuna Tagging Call” funded by the International Commission for the Conservation of Atlantic Tuna (ICCAT). Atlantic-wide Research Programme on Bluefin Tuna (May-December 2017). Participant.

Project “There are back: return of Bluefin tuna to Nordic waters” funded by the Nordic Council of Ministers (2016-2018). Principal Investigator for SLU.

Regional

Mobility for Regional Excellence MoRE2020. Finance obtained for the visiting Professor Cynthia Jones (Old Dominion University, USA). Funded by Västra Götaland Regionen (Region Västra Götaland), Sweden. Exchange periods (12 months total) 2018-2020.

University (SLU)

August Larsson guest researcher programme. Finance obtained for the visiting researcher Dr. Carlos Melian (Eawag Swiss Federal Institute of Aquatic Science and Technology, Switzerland). Funded by SLU, Sweden. Exchange periods (1 month/year): 2018-2020.

Additional grants

Additionally, more than 10 grants/funding for personal research projects (i.e. attained as single applicant) between 2001 and 2008. Supplied by Stiftelsen Hierta-Retzius for scientific research, Orvar och Gertrud Nybelins fond, Stiftelsen Oscar och Lili Lamms Minne, The Swedish Institute, Stiftelsen Birgit och Birger Wåhlströms Minnesfond för den Bohuslänska havs och insjömiljön, University of Bologna, Italienska Kulturinstitutet “C. M. Lericci”, EU Gothia Project Leonardo Da Vinci (University of Gothenburg).

2.2 GUEST RESEARCH visits

2008-2010: Collaboration with the National Institute for Fisheries Research of Maputo for the management of the inshore fishery in Mozambique. Work periods in Mozambique.

November 2006: Guest Researcher at the Kenya Marine Fisheries Research Institute. Participation in the project “Ectoparasitic polychaetes in the Indian Ocean”. Field sampling in Malindi Coral Reef Marine Park.

May-July 2006: Guest Researcher at the Latvian Fish Research Agency, Latvia: “Modeling of herring and sprat growth in the Central Baltic for medium-term stock forecasts”.

2.3 EXPERT MANDATES and POSITIONS OF TRUST

Responsibilities for studies or scientific researches entrusted by public or private institutions

- 2022: **invited** by the Natural Resources Institute of Finland (Luke) to evaluate applications for a Research Professorship (tenure track) in Sustainable Fisheries.
- 2018, 2021, 2024: **invited** by the Science Foundation of Ireland to evaluate applications for research funds.
- 2019: **invited** by the German Research Foundation to evaluate cruise proposals for research vessels.
- 2018: **invited** by the Research Council of the Faroe Islands to evaluate applications for research funds.

- 2015: **invited** by EU ERA-Net to evaluate research proposals for the ERA-Net projects, FP7 Europe 2020 strategy.
- 2013: **referee** of research proposals for the European Research Council, European Commission.
- 2009-2010: **Invited** by JRC (Joint Research Centre of the European Commission) and ICES (International Council for the Exploration of the Sea) to participate in the Task Groups providing scientific support for the implementation of the EU MSFD by developing criteria and methodological standards for Good Environmental Status (GES). Task Group 4: Marine Food Webs.
- 2011-2012: **Invited** by the European Parliament to write a briefing Note on “Ecosystem shifts in the Baltic Sea” and give an oral presentation at the Workshop “Regime shifts in marine ecosystems: how overfishing can provoke sudden ecosystem changes”, for the Members of the Committee of Fisheries in the European Parliament. IP/B/PECH/IC/2011-102, Brussels.
- 2012: **Invited** by the Swedish Research Council Formas to write a popular article on "Världens fiskbestånd – hållbart läge eller nära kollaps? (World fish stocks - sustainable use or close to collapse?)".
- 2016: **Contribution** to the research on "Fish and crustaceans' situation in marine and freshwater environment 2016 (Fisk- och skaldjursbestånd i hav och sötvatten 2016). Swedish Agency for Marine and Water Management (Havs- och vattenmyndigheten).

Invitations in expert panels

- 2024-2028: **member** of the Scientific Expert Panel of AQUARIUS (Aqua Research Infrastructure Services for the health and protection of our unique, oceans, seas and freshwater ecosystems). HORIZON-INFRA-2023-SERV-01-01.
- 2013-2022: **alternate member** of the ICES Advisory Committee (ACOM).
- 2012: **independent expert** at the EU Commission STECF “Multispecies management plans for the Baltic”, Rostock, Germany.
- 2011: Invited by the European Parliament as **independent expert** to write a briefing Note on “Ecosystem shifts in the Baltic Sea” and give an oral presentation at the Workshop “Regime shifts in marine ecosystems: how overfishing can provoke sudden ecosystem changes”, for the Members of the Committee of Fisheries in the European Parliament. IP/B/PECH/IC/2011-102, Brussels.
- 2009-2011. Invited as **independent evaluator** of the project “Judgement and Knowledge in Fisheries Involving Stakeholders (JAKFISH)” EU funded project.
- 2009-2010: invited by JRC (European Commission)/ICES as **independent expert member** of the Task Groups providing scientific support for the implementation of the EU MSFD by developing criteria and methodological standards for Good Environmental Status (GES). Task Group 4: Marine Food Webs.

Chairmanships and coordination of Scientific Expert Groups

- 2019: **Chairman** of the ICES Benchmark Workshop on Baltic Cod Stocks (WKBALTCOD2), Copenhagen, Denmark, 4-8 February 2019.
- 2018: **Chairman** of the ICES Workshop on Workshop on Evaluation of Input data to Eastern Baltic Cod Assessment (WKIDEBCA), Copenhagen, Denmark, 23-25 January 2018.
- 2017: **Chairman** of the ICES Workshop on Biological Input to Eastern Baltic Cod Assessment (WKBEBCA), Gothenburg, Sweden, 1-2 March 2017.
- 2016-2017: **Chairman** of the ICES Baltic Fisheries Assessment Working Group (WGBFAS) (held annually) (2-years mandate).
- 2016: **Chairman** of the ICES Workshop on Spatial Analyses for the Baltic Sea 2 (WKSPATIAL_2), Riga, Latvia, 8-10 November 2016.

- 2013-2016: **Task Leader** to develop core indicators of Biodiversity - Proportion of large fish in the community. Baltic Marine Environment Protection Commission (HELCOM) within the CORESET I and II projects.
- 2015: **Chairman** of the ICES Workshop on Spatial Analyses for the Baltic Sea (WKSPATIAL), Rome, Italy, 3-6 November 2015.
- 2014: **co-Chair** of the Workshop on Comparative Cod Dynamics – identifying potential regulation by somatic growth analyses [DEMO2], Lysekil, Sweden, 10-12 November 2014.
- 2013-2014: **stock coordinator** of the assessment of the Eastern Baltic Sea cod within the ICES Baltic Fisheries Assessment Working Group (WGBFAS) (held annually).
- 2012-2014: **Chairman** of the ICES Study Group on Spatial Analyses for the Baltic Sea (SGSPATIAL) (held annually) (3-years mandate).
- 2010-2012: **Chairman** of the ICES Baltic Fisheries Assessment Working Group (WGBFAS) (held annually) (3-years mandate).
- 2007-2009: **stock coordinator** of the assessment of the Central Baltic Sea herring within the ICES Baltic Fisheries Assessment Working Group (held annually).

Membership and participation in national and international Research groups

- 2020-ongoing: **Member** of the Board of Directors of the National Inter-University Consortium for Marine Sciences (responsible for the University of Bologna), Italy.
- 2020-2024: **Member** of the FAO-AdriaMed (Scientific Cooperation to Support Responsible Fisheries in the Adriatic Sea).
- 2016: **Participation** in the “HELCOM (Baltic Marine Environment Protection Commission) Workshop on Fish Indicators- -a fishy part of marine environmental policy?”, Gothenburg, Sweden.
- 2015-ongoing: **Member** of the ICES Working Group on Comparative Analyses between European Atlantic and Mediterranean marine ecosystems to move towards an Ecosystem-based Approach to Fisheries (WGCOMEDA).
- 2014: **Participation** in the “First meeting of operationalization of HELCOM (Baltic Marine Environment Protection Commission) core indicators (CORESET II project)”, Berlin, Germany.
- 2007-ongoing: **Member** of the ICES Baltic Fisheries Assessment Working Group (WGBFAS) (with international 5-days meetings held annually, usually attended by participants from 9 countries).
- 2007-2013: **Member** of the ICES Baltic International Fish Survey Working Group (WGBIFS) (with international 5-days meetings held annually, usually attended by participants from 9 countries).
- 2012: **Member** of the Workshop on Integrated/Multispecies Advice for Baltic Fisheries (WKMULTBAL), Copenhagen, Denmark.
- 2011: **Member** of the ICES Working Group on Integrating Surveys for the Ecosystem Approach (WGISUR), Dublin, Ireland.
- 2011: **Participation** in the EUR-OCEANS Foresight Workshop, Effects of fishing-induced alterations in population structure and life history traits on the response of worldwide fisheries to climate, Center for Ecological and Evolutionary Synthesis (CEES), Oslo, Norway.
- 2008: **Member** of the “1st workshop on habitat mapping of spawning and nursery areas of Baltic herring”, Öregrund, Sweden. 8-12 December 2008.
- 2008: **Participation** in the EUR-OCEANS Workshop, Meta-analysis of climate-plankton-fish interactions across semi-enclosed European shelf areas, Split, Croatia.
- 2005: **Member** of the ICES Study Group on Regional Scale Ecology of Small Pelagic Fish (SGRESP), Plymouth, UK.

- 2005: **Member** of the ICES Study Group on Fish and Fisheries Issues in the Baltic Sea Regional Project (SGBFFI), Riga, Latvia.
- 2004: **Member** of the ICES Workshop on age estimation of sprat, Flødevigen, Norway.

Invitations as external expert at workshops and discussion panels

- **Invited as expert** at the Congress “Biodiversity and the ocean – the BBNJ Agreement”, Bologna, Italy, 21 March 2024.
- **Invited in the joint Baltic Sea Advisory Council Joint Demersal - Pelagic Working Group**, online, 27 February 2024.
- **Invited in the discussion panel** organized by the Ministry of Environment of Estonia “Main challenges of sustainable balanced management in fisheries”, Tallinn, Estonia, 19 October 2017.
- **Invited in the discussion panel** organized by the BSRAC (Baltic Sea Regional Advisory Council) at the Seminar “Ecosystem-based management”, Gdynia, Poland, 25-26 September 2012.
- **Invited as expert** at the EUR-OCEANS Foresight Workshop, “Effects of fishing-induced alterations in population structure and life history traits on the response of worldwide fisheries to climate”, Center for Ecological and Evolutionary Synthesis (CEES), Oslo (Norway), 12-14 September 2011.
- **Invited as expert** at the Workshop “Food web interactions and their link to climate, fishery, and eutrophication – is science ready to drive management actions to improve the Baltic Sea environment?”, Royal Swedish Academy of Sciences, Stockholm (Sweden), 13-15 January 2010.
- **Invited as expert** at the Scenario Workshop on “Baltic fish populations”, Swedish Parliament, Stockholm (Sweden), 3 June 2009.
- **Invited as expert** at the EUR-OCEANS Workshop, “Meta-analysis of climate-plankton-fish interactions across semi-enclosed European shelf areas”, Split (Croatia), 17-19 November 2008.
- **Invited as expert** at the Baltic STERN Workshop “Food web modeling including fisheries economy”, Stockholm Resilience Centre, Stockholm (Sweden), 22-23 November 2007.

2.4 CHAIRMANSHIPS at conferences and symposia

- **Convener** of the Theme Session “Do food-web dynamics matter in fisheries management?”, ICES Annual Science Conference, Reykjavik (Iceland), 23-27 September 2013.
- **Convener** of the Special Session “Spatial connectivity in aquatic landscapes: patterns, mechanisms and implications for populations, communities and ecosystems”, ASLO Aquatic Sciences Meeting, Puerto Rico, 13-18 February 2011.
- **Convener** of the Theme Session “Comparative dynamics of populations of the Baltic Sea and Gulf of St. Lawrence ecosystems”, ICES Annual Science Conference, Halifax (Canada), 22-26 September 2008.

2.5 INVITATIONS as SPEAKER at conferences, workshops and seminars

- **Key-note speaker** at the Congress “Biodiversity and the ocean – the BBNJ Agreement”, Bologna University (Italy), 21 March 2024. Title: “Biodiversity in the Areas Beyond National Jurisdiction: meaning and importance”.
- **Invited speaker** at the “Joint Baltic Sea Advisory Council Joint Demersal - Pelagic Working Group”, 27-28 February 2024, online. Title: “Flatfish-cod interactions”.

- **Key-note speaker** at the “Ocean Deoxygenation Conference”, Kiel (Germany), 3-7 September 2018. Title: “Effect of deoxygenation on fish biology and fisheries in an enclosed brackish marine ecosystem”.
- **Invited speaker** at the Workshop “Marine ecological-economic systems: Shifting the baseline to a regime of sustainability”, Tilburg University (The Netherlands), 22-23 September 2017. Title: “Threshold dynamics in the Baltic Sea pelagic food-web, with focus on fish-zooplankton interactions: possible implications for fisheries management”.
- **Invited speaker** at the 2nd MARmaED PhD course, Kristineberg (Sweden), 1-5 April 2017. Title: “Challenges in fisheries management with focus on the Baltic Sea”.
- **Invited speaker** at the “HELCOM Workshop on Fish Indicators”, Gothenburg (Sweden), 10 May 2016. Title “Proportion of large fish (LFI) in the offshore pelagic community”.
- **Invited speaker** at the Marine Science Conference of the “Swedish Society of Marine Sciences”, Lund University (Sweden), 18-20 November 2015. Title: “Spatio-temporal changes in exploited fish populations in the Baltic Sea: patterns, causes and consequences”.
- **Invited speaker** at the Symposium “Ecological networks – structure and functioning”, Linköping University (Sweden), 28 August 2014. Title: “Spatio-temporal changes in the Baltic food web: causes, consequences and implications for management”.
- **Invited speaker** at the seminar series of Umeå University (Dept. of Ecology and Environmental Sciences), 13 March 2013. Title: “Spatio-temporal dynamics of fish populations in the open Baltic Sea-causes, consequences and management”.
- **Invited speaker** at the BSRAC (Baltic Sea Regional Advisory Council) Seminar “Ecosystem-based management”, Gdynia (Poland), 25-26 September 2012. Title: “Biodiversity, species interactions, food webs and systemic changes in the Baltic: why is an integrated approach needed?”.
- **Invited speaker** at the Seminar “Food webs and non-indigenous species?”, GES-REG (Good Environmental Status through regional coordination and capacity building) project, Helsinki (Finland), 28-29 August 2012. Title: “Food webs in the Baltic-when are they healthy?”.
- **Invited speaker** at the Seminar “Ecosystem approach in theory and practice – what do we know, where are we?”, Swedish Institute for the Marine Environment, Gothenburg (Sweden), 21-22 October 2010. Title: “The Baltic Sea: climate changes, trophic cascades and ecological thresholds: applications for an ecosystem approach”.
- **Invited speaker** at the “International Marine Conservation Congress”, Washington DC (USA) 20-24 May 2009. Title: “Switches in marine ecosystem functioning: ecological thresholds and season-specific trophic interactions modulate top-down, bottom-up and climate forces in the Baltic Sea”
- **Invited speaker** at the Workshop “Genetic consequences of fisheries and fisheries management”, Bornholm (Denmark), 25-26 October 2006. Title: “Effect of fisheries on other species in the ecosystem”.
- **Invited seminar** within the course “Ecology”, Master degree in Natural Sciences, University of Bologna, Italy, April 2004. Title: “Pelagic ecology with particular emphasis on the Baltic Sea”.

2.6 AWARDS

- **Service Award** from ICES in recognition of the contribution to ICES as Chair of the Baltic Fisheries Assessment Working Group (WGBFAS) 2016-2017. 1 December 2017, Copenhagen, Denmark.
- **Service Award** from ICES in recognition of the contribution to ICES as Chair of the Study Group on Spatial Analyses for the Baltic Sea (SGSPATIAL) from 2012-2014. 27 April 2015, Copenhagen, Denmark.

- **Service Award** from ICES in recognition of the contribution to ICES as Chair of the Baltic Fisheries Assessment Working Group (WGBFAS) from 2010-2012. 1 December 2012, Copenhagen, Denmark.
- Selection by the **“Faculty 1000 Biology”** of the article **“Casini M. et al. (2009), Trophic cascades promote threshold-like shifts in pelagic marine ecosystems”** as one of the most innovative articles in biology, April 2009. (Faculty of 1000 Biology: evaluations for Casini M. et al *Proc. Natl. Acad. Sci. USA* 2009 Jan 6 106(1):197-202, <http://www.f1000biology.com/article/id/1139136/evaluation>).
- **Honourable Mention** as **“Best Paper”** **“Casini M. et al., Human- and climate-induced changes in the Baltic Sea ecosystem: are they easily reversible?”** at the “International Young Scientists’ Global Change Conference”, Beijing (China), 5-7 November 2006.

2.7 EDITORIAL WORK

Member of the **Editorial Board** of the peer-review journals “Current Water Management Reports”, “Fisheries Oceanography”, “Frontiers in Marine Science”, “Environment, Ecology & Management” and “ISRN Ecology”.

2.8 REVIEWER WORK

Referee for the peer-review journals: Aquatic Living Resources, Fisheries Research, ICES Journal of Marine Science, Journal of Fish Biology, Oecologia, Marine Ecology, Boreal Environment Research, Ecological Monographs, Fisheries Oceanography, Proceedings of the Royal Society B, Global Change Biology, BioScience, Population Ecology, Hydrobiologia, Marine Biology Research, Marine Pollution Bulletin, PlosOne, Journal of Sea Research, Progress in Oceanography, Ibis, Estuaries and Coasts, Ecological Indicators, Fish and Fisheries, Ecology and Society, Philosophical Transactions of the Royal Society B, Ecology, Ecology Letters, and Nature.

3. PEDAGOGIC ACTIVITIES

3.1 TEACHING

- 2024-present: **Lecturer** of the course “Biochemistry and Ecology” in the Master Programme “Low carbon technologies and sustainable chemistry”, University of Bologna, Italy. Activity: 25 hours/academic year.
- 2022-present: **Leader** and **Lecturer** of the course “Evaluation of biological resources and sustainable fisheries management” in the Master Programme “Marine Biology”, University of Bologna, Italy. Activity: 24 hours/academic year.
- 2022-2024: **Lecturer** of the course “The challenge of global change for biodiversity in terrestrial and marine ecosystems” in the PhD Programme “Future Earth, Climate Change and Societal Challenge”, University of Bologna, Italy. Activity: 2 hours/academic year
- 2020-present: **Leader** and **Lecturer** of the course “Ecology and nature conservation” in the Bachelor Programme “Natural Sciences”, University of Bologna, Italy. Activity: 40 (52 since 2024) hours/academic year.
- 2020-present: **Co-leader** and **Lecturer** of the course “Basics and teaching of ecology” in the Master Programme “Teaching and communication of natural sciences”, University of Bologna, Italy. Activity: 24 (18 since 2024) hours/academic year.
- 2020-2022: **Leader** and **Lecturer** of the course “Spatial planning and monitoring of the marine environment” in the Master Programme “Marine Biology”, University of Bologna, Italy. Activity: 24 hours/academic year.

- 2019-present: **Lecturer** in the course “Sustainability perspectives on contemporary fisheries. Where have all the fishes gone?” at the SLU Department of Aquatic Resources. Activity: 2 hours/academic year.
- February 2017: **Lecturer** in the course “Biology of Marine Resources”, in the Master Programme “Marine Biology”, University of Bologna, Italy. My lectures covered the subject “Fisheries Biology”. Activity: seminars’ series (8 hours).
- 2016-present: **Lecturer** in the Master Course “Principles in Fisheries Science”, Swedish University of Agricultural Sciences SLU, Sweden. Activity: 6 hours/academic year.
- 2015-present (annually): **Lecturer** in the Bachelor Programme “Biology and Environmental Science”, Swedish University of Agricultural Sciences SLU, Sweden. My lectures cover the issue “Marine resources”. Activity: 2 hours/academic year.
- 2015-present: **Lecturer** in the PhD Course “Fisheries Ecology and Aquatic Resource Management”, at the SLU Department of Aquatic Resources
- 2014-present (annually): **Lecturer** for the Course “Population ecology: theories and applications”, Linköping University, Sweden. My lectures cover the subject “Fishery and trophic cascades in marine ecosystems”. Activity: 2 hours/academic year.
- 2010-present (annually): **Lecturer** for the Course “Fish and Fisheries Biology”, Stockholm University, Sweden. My lectures cover the issue “Data collection and stock assessment”. Activity: 2 hours/academic year.
- 2005-2015 (annually): **Lecturer** for the Course “Fish Ecology and Conservation”, Gothenburg University, Sweden. My lectures cover the issue 1) Baltic Sea ecosystem dynamics and 2) Fish stock assessment. Activity: 2 hours/academic year.
- 2009-2010: **Co-organiser** and **Lecturer** for the Master Course “Aquatic Biology and Coastal Ecosystem”, Eduardo Mondlane University, Maputo (Mozambique). My lectures covered the module “Fisheries biology and fisheries resources”.
- 2001-2007 (annually): **Co-organiser** and **Lecturer** for the Course “Fisheries Ecology”, University of Gotland, Sweden. My lectures covered the issues 1) Baltic Sea pelagic ecosystem dynamic, and 2) Kattegat-Skagerrak demersal fish populations’ dynamic.

3.2 COURSE DEVELOPMENT

- From 2018: **Co-leader** and **Lecturer** of the PhD Course “Valuing Ecosystem Services at Risk from Ocean Deoxygenation: A View from Both Sides of the Atlantic”, at the SLU Department of Aquatic Resources.
- From 2017: **Coordinator** of ERASMUS exchange at the SLU Department of Aquatic Resources.
- From 2016: **Co-developer** and **Lecturer** of the Master Course “Principles in Fisheries Science”, at the SLU Department of Aquatic Resources.
- 2015-2018: **Co-leader** and **Lecturer** of the PhD Course “Fisheries Ecology and Aquatic Resource Management”, at the SLU Department of Aquatic Resources.

3.3 SUPERVISION

Tutor of Associate Senior Lecturers

- Jonas Hentati-Sundberg (Sweden), June 2017-September 2021. Subject “Fisheries ecology with specialization in spatial dynamics”. Promotion to Senior Lecturer in September 2021.

Host of visiting scientists

- Prof. Cynthia Jones (Old Dominion University, USA). Exchange periods: 2018-2021.
- Dr. Carlos Melian (Eawag Swiss Federal Institute of Aquatic Science and Technology, Switzerland). Exchange periods: 2018-2021.

Tutor of Postdoc fellows

- Elizabeth Duskey (USA), from spring 2020, on-going (3 years). Subject “Deoxygenation effects on aquatic food webs”. Co-tutor.
- Max Lindmark (Sweden), 15 May 2020 - 09 December 2022. Subject “Community ecology and trophic interactions”.
- Huidong Tian (China), 1 October 2011 - 31 March 2013. Subject “Fish population dynamics and ecosystem analyses”.

Supervisor of Doctoral students

- Astrid Anette Carlsen (Norway). Exam taken 4 June 2025, Swedish University of Agricultural Sciences. “Understanding predators through their prey”. Main supervisor until November 2021, Deputy supervisor thereafter.
- Polina Rusanova (Russia), Exam taken 21 March 2025, University of Bologna. “Towards a sustainable and healthy use of fisheries resources: processes, technologies, nutritional quality and contaminants”. Deputy supervisor.
- Federico Maioli (Italy). Exam taken 21 June 2024, University of Bologna. “Biodiversity and population dynamics of demersal fish resources”. Main supervisor.
- Federico Calì (Italy). Exam taken 21 June 2024, University of Bologna. “Adaptive life history strategy of the Adriatic commercial gadiformes facing fishing pressure and climate changes”. Deputy supervisor.
- Yvette Heimbrand (Sweden). Exam taken 28 May 2021, Swedish University of Agricultural Sciences. “Losing track of time: causes and solutions for the problematic determination of Baltic cod age”. Deputy supervisor.
- Monica Mion (Italy). Exam taken 21 May 2021, Swedish University of Agricultural Sciences. “Increasing the biological knowledge of Baltic Sea cod: growth, movements and reproductive potential from historical and contemporary data”. Main supervisor.
- Alessandro Orio (Italy). Exam taken 15 March 2019, Swedish University of Agricultural Sciences. “Understanding the spatial dynamics of Baltic Sea fish species”. Main supervisor.
- Hege Sande (Norway), from 1 May 2017, on-going, Swedish University of Agricultural Sciences. “Recreational fisheries: characterization, quantification, biological impact and application into management”. Main supervisor.
- Daniela Giordano (Italy), from 1 November 2023, ongoing, University of Bologna. “Multidisciplinary approach for the evaluation of the state of demersal species in the southern Tyrrhenian Sea”. Deputy supervisor.
- Erica Genoni (Italy), from 1 November 2024, ongoing, University of Bologna. “Dynamics and biodiversity of demersal and benthic species in the Adriatic Sea”. Main supervisor.

Supervisor of Internship students

- Manon Sorais (France), 1 January-31 June 2012. Thesis title: “A step towards developing size-based indicators in the Baltic Sea pelagic community”. In collaboration with the University of Montpellier, France.

Supervisor of Erasmus students

- Federico Maioli (Italy), 21 January-15 June 2019. Thesis title: “Feeding of Baltic cod in the pelagic habitat”. In collaboration with the University of Bologna, Italy.
- Carlos Diaz Gil (Spain), 1 July - 31 December 2011. Thesis title: “Zooplankton communities in the Kalmar Sound: spatio-temporal composition and dynamics”. In collaboration with the Gothenburg University and the University of Cadiz, Spain.

Supervisor of Bachelor and Master theses

- Vittoria Zuccarini, University of Bologna (2025): “Feeding ecology of the grey seal in the central Baltic and new frontiers in diet analysis using machine learning”. Master in Marine Biology.

- Piero Pitacco, University of Bologna (2025): “Biology, age and growth of *Galeus melastomus* Rafinesque, 1810 in the Strait of Sicily, central Mediterranean Sea”. Master in Biodiversity and Evolution.
- Tommaso Paolini, University of Bologna (2024): “Comparazione della dieta in pesci cartilaginei di profondità nel Canale di Sicilia”. Master in Marine Biology.
- Luca Ragni, University of Bologna (2024): “Determination of polycyclic aromatic hydrocarbons along Marche’s coast after the flood event of 15 september 2022”. Bachelor in Natural Sciences.
- Anna Chiarini, University of Bologna (2023): “A study on the breaching behavior of humpback whales (*Megaptera novaeangliae*) in Skjálfandi Bay, Northeast Iceland”. Bachelor in Natural Sciences.
- Valentina Perini, University of Bologna (2023): “Relazione tra morfometria del pesce e degli otoliti del merlano (*Merlangius merlangus*, Linnaeus, 1758) nell'Adriatico centro-settentrionale”. Bachelor in Natural Sciences.
- Vittoria Zuccarini, University of Bologna (2022): “Observations on the biology of the spiny dogfish, *Squalus acanthias*, in the Adriatic Sea”. Bachelor in Natural Sciences.
- Silvia Melchiori, University of Bologna (2021): “Anthropogenic influence on the interaction between the white-tailed eagle *Haliaeetus albicilla* and the common guillemot *Uria aalge* on the island of Stora Karlsö in the Baltic Sea”. Master in Marine Biology.
- Camilla Menestrina, University of Bologna (2021): “Diel ‘dive cycle’ of Common Guillemot (*Uria aalge*): exploring the Baltic Sea food chain’s dynamics in the island of Stora Karlsö, Sweden”. Master in Marine Biology.
- Emanuele Asciutto, University of Bologna (2020): “Distribution of whiting (*Merlangius merlangus*) and its temporal variations in view of biotic and abiotic factors”. Master in Marine Biology.
- Federico Maioli, SLU (2019): “Stomach data from pelagic research survey bring new information in cod feeding pattern in the South-Western Baltic sea”. Erasmus exchange with University of Bologna, Italy.
- Kevin Haase, SLU (2018): “Feeding overlap between cod and flounder in the Baltic Sea”.
- Felix Mittermayer, Gothenburg University (2009): “Reproductive biology and growth of the sprat (*Sprattus sprattus* L.) in the Kattegat and Skagerrak”.
- Magdalena Linden, Gothenburg University (2007): “Growth in Eastern Baltic cod - A question of abiotic factors or prey dynamics?”.
- Lina Blomgren, Lund University (2006): “Diet of cod (*Gadus morhua*) in the Skagerrak-Kattegat, Eastern North Sea”.

3.4 OTHER PEDAGOGIC ACTIVITIES

- **Evaluation Board Member** for the **Doctoral dissertation** “Study on fisheries resources with particular reference to red coral, spiny lobster and other target demersal species in Sardinian Seas” (candidate Isabella Bitetto), University of Cagliari (Italy). Cagliari, 18 July 2025.
- **Examiner** for the **Doctoral half-time seminar** “Implication of plankton-fish interactions and dynamics for the Baltic Sea food webs” (candidate Jan Kinlan), Stockholm University (Sweden). Stockholm, 17 November 2023.
- **Examiner** for the **Master thesis** “The Great cormorant, *Phalacrocorax carbo*, as a predator of the invasive Round goby” (candidate Louisa Alvarez Blomgren), Swedish University of Agricultural Sciences (Sweden). Uppsala, 26 May 2023.
- **Evaluation Board Member** for the **Doctoral dissertation** “Marine-demersal species distribution models for a spatial management, evaluation and forecasting in Adriatic and Ionian Seas” (candidate Diego Panzeri), University of Trieste (Italy). Trieste, 3 March 2023.

- **Opponent** of the **Doctoral dissertation** "Population structure and dynamics of Atlantic herring - a case study of herring inhabiting marginal habitats in Landvikvannet and its vicinity" (candidate Florian Berg), University of Bergen (Norway). Bergen, 4 May 2018.
- **Evaluation Board Member** for the **Doctoral dissertation** "Linking Movement Ecology with the Management of Mobile Species - Managing Moose in Sweden" (candidate Andrew Allen), Swedish University of Agricultural Sciences (Sweden). Umeå, 18 November 2016.
- **Examiner** for the **Master thesis** "Explaining catch efficiency of cod pots through in situ behavioural studies" (candidate Maria Hedgärde), Swedish University of Agricultural Sciences (Sweden). Lysekil, 8 September 2016.
- **Evaluation Board Member** for the **Doctoral dissertation** "Ecosystem effects of bottom trawl fishing" (candidate Daniël van Denderen), Wageningen University (The Netherlands). Wageningen, 3 September 2015.
- **Evaluation Board Member** for the **Doctoral dissertation** "Extinctions in ecological communities – direct and indirect effects of perturbation on biodiversity" (candidate Alva Curtsdotter), Linköping University (Sweden). Linköping, 29 August 2014.
- **Evaluation Board Member** for the **Doctoral dissertation** "Broadening the perspective on seafood production: life cycle thinking and fisheries management" (candidate Sara Hornborg), Gothenburg University (Sweden). Gothenburg, 25 April 2014.
- **Evaluation Board Member** for the **Doctoral dissertation** "Environmental drivers of gelatinous zooplankton distribution – *Mnemiopsis* in Swedish waters" (candidate Matilda Haraldsson), Gothenburg University (Sweden). Gothenburg, 27 September 2013.
- **Evaluation Board Member** for the **Licentiate dissertation** "Observations of direct and indirect trophic interactions - studies of Baltic Sea zooplankton" (candidate Per Holliland), Stockholm University (Sweden). Stockholm, 4 April 2011.
- **Opponent** of the **Doctoral dissertation** "Modelling the effects of climate change, species interaction and fisheries-towards Ecosystem-based Fisheries Management in the Central Baltic Sea" (candidate Martin Lindegren), Danish Technical University (Denmark). Copenhagen, 5 February 2010.

4. EXPERTISE IN WORKING WITH THE PUBLIC COMMUNITY

Appearances in the media

Newspapers

- *Forskning & Framsteg*: "Syrebrist gör torsken i Östersjön mager" ("Hypoxia makes Baltic cod thin"), 12-12-2019 (<https://fof.se/artikel/syrebrist-gor-torsken-i-ostersjon-mager>).
- *Svenska Dagbladet*: "Så mår fisken i Östersjön-art för art" ("The state of fish in the Baltic Sea-species by species"), 5-10-2018 (<https://www.svd.se/sa-mar-fisken-i-ostersjon--art-for-art>).
- *Sveriges Natur*: "Torskens årsringarna försvinner - ingen vet varför" ("Cod annual rings disappear - nobody knows why"), 15-03-2017 (www.sverigesnatur.org/aktuellt/torskens-arsringar-forsvinner-ingen-vet-varfor/).
- *Skärgården*: "Syrebristen orsak till mager torsk" ("Lack of oxygen the cause of thin cod"), 15-11-2016 (<http://www.skargarden.se/syrebristen-orsak-till-mager-torsk/>).
- *Sydsvenskan*: "Brist på syre och föda hotar torsken" ("Lack of oxygen and food threaten the cod"), 27-10-2016 (<http://www.sydsvenskan.se/2016-10-27/brist-pa-syre-och-foda-hotar-torsken>).
- *Svenska Dagbladet SvD*: "Många fiskarter trivs i Östersjön-men inte torsken" ("Many fish species thrive in the Baltic Sea - but not the cod"), 03-08-2016 (<http://www.svd.se/manga-fiskarter-trivs-i-ostersjon--men-inte-torsken>).

- *Svenska Dagbladet SvD*: "Nya kemikalier hotar Östersjön-upptäcks inte" ("New chemicals threat the Baltic Sea – but they are difficult to detect"), 03-08-2016 (<http://www.svd.se/nya-kemikalier-hotar-ostersjon--upptacks-inte>).
- *Sydsvenskan Dagbladet (Bilaga from Media Planet)*. "SLU's forskning möjliggör en ekosystem-baserad förvaltning av Östersjöns fiskbestånd" ("SLU's research makes possible an ecosystem-based management of the Baltic Sea fish stocks"). 20-09-2013
- *Sydsvenskan Dagbladet*: "Torsken riskerar att svälta ihjäl" ("The cod risk to die of hunger"), 09-05-2012 (<http://www.sydsvenskan.se/sverige/torsken-riskerar-att-svalta-ihjal>).
- *Sydsvenskan Dagbladet*: "Minskat fiske ger renare hav" ("Reduction in fishing pressure gives a cleaner sea"), 12-03-2010 (<http://sydsvenskan.se/opinion/aktuellafragor/article637199/Minskat-fiske-ger-renare-hav.html>). This article was translated in several languages and published in different national newspapers.
- *Dagens Nyheter*: "Torskbrist bakom algplåga" ("Lack of cod behind algal blooms"), 09-05-2008 (<http://www.dn.se/nyheter/vetenskap/torskbrist-bakom-algplaga-1.641320>).
- *BBC News*: "Cod fall my speed toxic tide", 07-05-2008 (<http://news.bbc.co.uk/go/pr/fr/-/1/hi/sci/tech/7386458.stm>).
- *Skärgården*: "Strömmingen är havets silver" ("Baltic herring is the ocean silver"), 12-03-2008.
- *MiljöAktuellt*: "Rädda torsken – åt ansjovis" ("Save the cod-eat sprat"), 19-04-2006.
- *Lysekils-Posten*: "Mycket skarpsill hämmar torskutväxt" ("Much sprat hamper cod growth"), 10-03-2006.
- *EcoSensus* (albaeco): "Ingen enkel väg tillbaka för Östersjön" ("No easy way back for the Baltic Sea"), 2006, N. 2 (www.albaeco.com/ecosensus).

Television interviews/programs

- *SVT, Vetenskapens värld*. Participation in the Television documentary "Östersjön hot och hopp" ("Baltic Sea threat and hope"), 24-11-2019 (<https://www.svtplay.se/video/24580291/vetenskapens-varld/vetenskapens-varld-sasong-31-ostersjon-hot-och-hopp?info=visa>).
- *Mitt i Naturen*: reportage about the Bluefin tuna tagging project in the Scandinavian waters. "När naturen behöver hjälp" ("When nature needs help"), 02-11-2017 (<https://www.svtplay.se/video/15722904/mitt-i-naturen/mitt-i-naturen-nar-naturen-behoover-hjalp>).
- *SVT Nyheter*: "Kris för torsken i Ålands hav" ("Crisis for cod in the Ålands Sea"), 31-10-2017 (<https://www.svt.se/nyheter/lokalt/uppsala/kris-for-torsken-i-alandshav>).
- *SVT Nyheter*: "18000 torskmarke med telefonnummer" ("18000 cods will be tagged with phone number"), 23-05-2016 (<http://www.svt.se/nyheter/lokalt/skane/18-000-torskmarke-med-telefonnummer>).
- Participation in the Television documentary Baltic Sea Media Project Program "For cod's sake: the cod is back in the Baltic Sea...Is it really?" FRP AB 2009.

Radio interviews

- *P4 Gotland*: "Artontusen torskmarke i Östersjön registreras" ("18000 cod in the Baltic Sea are registered"), 30-01-2017 (<http://sverigesradio.se/sida/artikel.aspx?programid=94&artikel=6617921>).
- *Vetenskapsradion* and *Dagens eko*: "Östersjön strömmingar allt magrare" ("Baltic herring increasingly thinner"), 17-06-2016 (<http://sverigesradio.se/sida/artikel.aspx?programid=94&artikel=6455130>).
- *Sveriges Radio*, P4 Blekinge: "Miljösatsning ska kartlägga torsken i Östersjön" ("Million effort to map cod in the Baltic Sea"), 22-01-2016 (<http://sverigesradio.se/sida/artikel.aspx?programid=105&artikel=6316684>).

- *Radio Germany*: Current Research (about fishery-induced changes in fish population structure, in German), 16-09-2014 (<http://www.deutschlandradio.de/audio-archiv.260.de.html?drau:page=3>).
- *Vetenskapsradion*: "Fiske större orsak till algbloomning än övergödning" ("Fishery bigger cause of algal blooms than eutrophication"), 09-05-2008.
- *Gotlandsnytt*: Mer skarpsill bakom algbloomning" ("More sprat behind algal blooms"), 09-05-2008.
- *Ekot*: "Skarpsillen stort hot mot Östersjötorsken" ("Sprat big threat for the Baltic Sea"), 25-03-2006.
- *Vetenskapsradion*: "Torskris i Östersjön" ("Cod crisis in the Baltic Sea"), 09-03-2006.

Public engagement

Convention PCTO (Pathways for Transversal Skills and Orientation) with the Scientific High-school Torelli (Fano, Italy).

Other regular activities concern the divulgation to the public audience of the activities performed at my home Institutes (ex. the Swedish Board of Fisheries and the Swedish University of Agricultural Sciences). An example of this is the "sillens dag" ("the herring day") organized in Sweden every year in fall, aimed to inform the community about the investigations performed on Baltic herring populations. Continuous activities (talks, discussions, etc.) are also addressed to inform the stakeholders (ex. fishermen, fish food producers, ect...) about the status of the natural marine resources and the best management actions to implement in order to assure their sustainable use.

Bologna, 25-07-2025

Michele Casini