

Francois Bastardie

Year of birth: 1977

ORCID

0000-0002-2669-6179

Degrees

Diploma (PhD), CNRS/University of Rennes1, France (2004).

Positions

Research Scientist, IFREMER, Nantes, France (2005-2007).

Research Scientist, Danish Institute of Fisheries Research (DIFRES)/DTU Aqua (2007-2011).

Senior Researcher, Section for Ecosystem based Marine Management, DTU Aqua, Technical University of Denmark (2011-present).

Research area

- EU waters focused on the North, Baltic, Celtic, Western and Eastern Mediterranean, and Black Sea. Risk and impact assessment, management strategy evaluation tools and spatial models for fisheries management toward the Ecosystem Approach to Fisheries Management, with a particular focus on developing spatial impact assessment tools that can be used to evaluate the consequences of fisheries displacement on the sustainability and economy of fisheries and marine ecosystems.
- Data analyses, model integration and dissemination work on maritime spatial planning and policy, and integrated coastal zone management. Contribution to the coordination and integration of different spatial activities in marine areas and the reduction of potential inefficient management and use of marine space following the aims and implementation of the EU Directives MSPD, Birds Directive, HD and MSFD.
- Fisheries management and bio-economic approaches within the EU CFP, scenario evaluation through simulation, dynamic coupling of fisheries-based models with ecosystem models. Document research pathways for mitigating fishing fleet impacts (fish, marine mammals, benthos) and decarbonisation pathways toward reaching environmental commitments.
- Led international projects reviewing/modelling the past and future effects of climate change on an array of EU fisheries (Baltic Sea, North Sea, NWW, SWW) with considerations on resilience/adaptation pathways; Used to run socio-ecological impact assessment arising from ecological effects or fisheries & environmental management measures, used to deal with stock assessment data and the possible practical ways to incorporate climate/environmental drivers; Involved in projects listing barriers impairing full uptake of science into the chain of advice. Experiencing these workflows from science to policy as a STECF Plenary member.

Memberships of scientific committees, 2016-present

EU STECF Plenary member (2019-present).

ICES participant to ICES Assessment of the Eastern Baltic cod (WGBFAS), ICES (WGECON), ICES Spatial Fisheries Data (WGSFD), ICES Fishing benthic impact and trade-offs (WGFBIT), ICES WKTRADE tradeoffs.

Web of Science publications: 72. **Citations:** 2900+. **h-index:** 31. **Book chapters:** 2. **Reports:** 50+.

International conferences, 2016-present: Contributions as first author: 3+. **Invited:** 1.

Evaluation tasks, 2016-present

Reviewer of >50 manuscripts for scientific journals: Fish and Fisheries, Frontiers in Marine Science (as Associate Editor), PNAS, ICES Journal of Marine Science, Canadian Journal of Fisheries and Aquatic Sciences, Fisheries Research, PlosONE, Journal of Fish Biology.

Reviewer of grant applications for NERC, UK.

Advisory tasks, 2016-present

EU STECF WGs (2012-present) and Plenaries (2019-present).

ICES WGs (2010-present).

HELCOM Baltic Holistic Assessment (HOLAS). Notes to Danish ministries.
Alma Maris Consulting. Consulting work for the European Parliament

Educational tasks at academical level, 2016-present

DTU course MSc: Fisheries systems (contributor).

Supervision, ongoing or finished in 2016 or later

PhD: Main supervisor: Marie-Christine Rufener. Co-supervisor: Kristian S. Plet-Hansen, Sieme Bossier & Berthe Vastenhouw.

Innovation activities, 2016-present

Developer of the displace-project.org web site and various R packages on GitHub, e.g. offering routines to process and map VMS and logbooks fishery data at the pan-European scale. Developer and maintainer of spatial bio-economic modelling tools for fisheries.

Collaboration with other stakeholders, 2016-present

Energy use in fisheries and efficiency within the EMFAF program

Grants (competitive), ongoing or finished in 2016 or later

EASME/CINEA: Climate change & the CFP (project leader).

EU COFASP ERA-NET: ECOAST (leader of work packages).

EMFF: North Sea resource distribution and fishery opportunities (NORDFO) (project leader).

Selected publications

Bastardie, F., Salvany, L., Cooper, A. M., & Carvalho, N. (2024). A roadmap to reduce the risk of overexploiting EU marine living resources in a changing ocean. *Frontiers in Marine Science*, 11.

Bastardie, F, et al. 2022. Ten lessons on the resilience of the EU Common Fisheries Policy towards climate change and fuel efficiency - A call for adaptive, flexible and well-informed fisheries management . *Frontiers in Marine Science*

Bastardie, F., Hornborg, S., Ziegler, F., Gislason, H., & Eigaard, O. R. (2022). Reducing the Fuel Use Intensity of Fisheries: Through Efficient Fishing Techniques and Recovered Fish Stocks. *Frontiers in Marine Science*, 9.

Bastardie F, Brown EJ, Andonegi E, Arthur R, Beukhof E, Depestele J, Döring R, Eigaard OR, García-Barón I, Llope M, Mendes H, Piet G & Reid D (2021). A Review Characterizing 25 Ecosystem Challenges to Be Addressed by an Ecosystem Approach to Fisheries Management in Europe. *Frontiers in Marine Science*, 7, [629186]. DOI: 10.3389/fmars.2020.629186.

Bastardie F & Brown EJ (2021). Reverse the declining course: A risk assessment for marine and fisheries policy strategies in Europe from current knowledge synthesis. *Marine Policy*, 126, [104409]. DOI: 10.1016/j.marpol.2021.104409.

Bastardie F, Danto J, Rufener M-C, van Denderen PD, Eigaard OR, Dinesen GE & Nielsen JR (2020). Reducing fisheries impacts on the seafloor: a bio-economic evaluation of policy strategies for improving sustainability in the Baltic Sea. *Fisheries Research*, 230, [105681]. DOI: 10.1016/j.fishres.2020.105681.

Eigaard OR, **Bastardie F**, Hintzen NT, Buhl-Mortensen L, Mortensen PB, Catarino R, Dinesen GE, Egekvist J, Fock H, Geitner K, Gerritsen H, González MM, Jonsson P, Kavadas S, Laffargue P, Lundy M, Gonzalez-Mirelis G, Nielsen JR, Papadopoulou N, ... & Rijnsdorp AD (2017). The footprint of bottom trawling in European waters: distribution, intensity, and seabed integrity. *ICES Journal of Marine Science*, 74(3), 847-865. DOI: 10.1093/icesjms/fsw194.

Bastardie F, Angelini S, Bolognini L, Fuga F, Manfredi C, Martinelli M, Nielsen JR, Santojanni A, Scarcella G & Grati F (2017). Spatial planning for fisheries in the Northern Adriatic: working toward viable and sustainable fishing. *Ecosphere* (Washington, D.C.), 8(2), [e01696]. DOI: 10.1002/ecs2.1696.