

Manuel Gesto

Date of birth: August 27th, 1979

ORCID

0000-0002-9136-7857

Degrees

MSc (Spanish equivalent: "DEA"), University of Vigo, Spain (2004).

PhD, University of Vigo, Spain (2008).

Positions

Researcher, Section for Aquaculture, DTU Aqua, Technical University of Denmark (2015-2018).

Senior Researcher, Section for Aquaculture, DTU Aqua, Technical University of Denmark (2018-present).

Research area

Fish health and welfare in the aquaculture context, including the development and use of fish-based welfare indicators for monitoring purposes at laboratory and farm facilities. Fish stress physiology and neurophysiology, directed to better understand how and to which extent fish are disturbed by different factors including both aquaculture (handling, poor water quality, stock density, etc.) and environmental (pollutants, climate change) stressors.

Distinctions and awards

Graduate student scholarship, University of Vigo, Spain (2003-2004).

PhD student scholarship, University of Vigo and Xunta de Galicia, Spain (2004-2007).

Postdoctoral fellowship, Fundação para a Ciência e a Tecnologia, Portugal (2009-2010).

Postdoctoral fellowships, Xunta de Galicia, Spain (2014, 2010-2012, 2008-2009).

Web of Science publications: 60. **Citations (Scopus):** 2042. **h-index:** 27. **Other publications:** 13.

Book chapters: 3. **Scientific conference contributions:** > 50.

Evaluation tasks, 2016-present

Member of grant review committee for The Polish Academy of Sciences (Poland), FONDECYT (Chile), RCN (Norway) and CSIC (Uruguay).

Reviewer (150+ assignments) for a number (> 20) of international peer-reviewed journals including Aquaculture, PLoS ONE, Journal of Experimental Biology, Frontiers in Physiology, Scientific Reports, Physiology and Behavior, Aquatic Toxicology.

Journal guest editor: Physiology & Behavior (2019). Associate Editor: Frontiers in Aquatic Physiology (2022-), Frontiers in Marine Science (2022-), Biology (2023-), Fish Physiology and Biochemistry (2025-).

PhD censor: Univ. Vigo, Spain (2018, 2021), Univ. Namur, Belgium (2020), Univ. Porto, Portugal (2025) and DTU, Denmark (2020, 2021, 2 x 2022, 2023).

Educational tasks at academical level, 2016-present

MSc course: Fish physiology and welfare (responsible since 2015).

Supervision

Supervision of BSc students/trainees: 2; Supervision of MSc students: 7; Supervision of PhD students: 2 (co-supervisor).

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

Nordic Council of Ministers – Nordic Network on Fish Welfare (Coordinator)

FP7, ANIHWA ERA-NET: Welfare, health and individuality in farmed fish (WIN-FISH) (PI and coordinator).

GUDP: New possibilities for growth and robustness in organic aquaculture (Robustfish) (PI).

GUDP: Re-thinking organic trout production (ShelterFish) (PI).

Selected publications

Toomey L, **Gesto M**, Alfonso S, Lund I, Jokumsen A, Lembo G, Carbonara P (2024). Monitoring welfare indicators of rainbow trout (*Oncorhynchus mykiss*) in a commercial organic farm: Effects of an innovative diet and accelerometer tag implantation. *Aquaculture* 582: 740549.

Gesto M, de Jesus Gregersen KJ, Pedersen L-F (2022). Effects of ozonation and foam fractionation on rainbow trout condition and physiology in a small-scale freshwater recirculation aquaculture system. *Aquaculture* 557: 738312

Gesto M, Jokumsen A (2022). Effects of simple shelters on growth performance and welfare of rainbow trout juveniles. *Aquaculture* 551: 737930.

Staven FR, **Gesto M**, Iversen MH, Andersen P, Patel DM, Nordeide JT, Kristensen T (2022). Cohabitation with Atlantic salmon (*Salmo salar*) affects brain neuromodulators but not welfare indicators in lumpfish (*Cyclopterus lumpus*). *Frontiers in Physiology* 13: 781519.

Gesto M (2021). Characterization of the neuroendocrine stress status as part of the multiparametric assessment of welfare in fish. In: *Cellular and molecular approaches in fish biology* (ISBN: 978-0-12-822273-7). Elsevier-Academic Press, London, UK. pp. 285-308.

* Alfonso S, **Gesto M**, Sadoul B (2021). Temperature increase and its effects on fish stress physiology in the context of global warming. *Journal of Fish Biology* 98: 1496-1508.

Gesto M, Madsen L, Andersen NR, El Kertaoui N, Kestemont P, Jokumsen A & Lund I (2021). Early performance, stress- and disease-sensitivity in rainbow trout fry (*Oncorhynchus mykiss*) after total dietary replacement of fish oil with rapeseed oil. Effects of EPA and DHA supplementation. *Aquaculture*, 536, 736446. DOI: 10.1016/j.aquaculture.2021.736446.

Gesto M, Zupa W, Alfonso S, Spedicato MT, Lembo G & Carbonara P (2020). Using acoustic telemetry to assess behavioral responses to acute hypoxia and ammonia exposure in farmed rainbow trout of different competitive ability. *Applied Animal Behaviour Science*, 230, 105084. DOI: 10.1016/j.applanim.2020.105084.

Gesto M (2019). Consistent individual competitive ability in rainbow trout as a proxy for coping style and its lack of correlation with cortisol responsiveness upon acute stress. *Physiology & Behavior*, 208, 112576. DOI: 10.1016/j.physbeh.2019.112576.

Hoseini SM, Pérez-Jiménez A, Costas B, Azeredo R & **Gesto M** (2019). Physiological roles of tryptophan in teleosts: Current knowledge and perspectives for future studies. *Reviews in Aquaculture*, 11, 3-24. DOI: 10.1111/raq.12223.

**Highly Cited Paper in WoS*