



Igor Granado

PHD STUDENT IN COMPUTER SCIENCE

Department of Sustainable Fishing Technologies, AZTI-BRTA

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Professional Experience

Predoctoral Researcher - Dept. of Sustainable Fishing Technologies

AZTI-BRTA

Pasaia, SP

Feb. 2019 - Present

Research assistant - Dept. of Marine Technologies

AZTI-BRTA

Pasaia, SP

Jan. 2017 - Jan. 2019

Education

Doctoral Programme in Informatics Engineering

UNIVERSITY OF THE BASQUE COUNTRY

Donostia, SP

Feb. 2019 - Present

MSc in integrated water system management

UNIVERSITY OF CANTABRIA

Santander, SP

Sept. 2015 - Sept. 2016

BSc in Civil Engineering

UNIVERSITY OF THE BASQUE COUNTRY

Donostia, SP

Sept. 2012 - Sept. 2014

Skills

TECHNICAL SKILLS

Coding Languages

R – SQL – Python – C++

Software

QGIS – ArcGIS – PostgreSQL – WEKA
– Netica

Other

Git – RMarkdown – LaTeX –
Microsoft office

Projects

SusTunTech

SUSTAINABLE TUNA FISHERIES THROUGH ADVANCED EARTH OBSERVATION TECHNOLOGIES

May 2020 - May 2023

DataBIO

DATA-DRIVEN BIOECONOMY PROJECT

Jan. 2017 – Jan. 2020

LIFE LEMA

INTELLIGENT MARINE LITTER REMOVAL AND MANAGEMENT FOR LOCAL AUTHORITIES

Sept. 2016 – Sept. 2019

Publications

For a complete list of publications see my *ResearchGate* profile.

ARTICLES

1. Basurko, O. C., Gabiña, G., Lopez, J., Granado, I., Murua, H., Fernandes, J. A., Krug, I., Ruiz, J., & Uriondo, Z. (2022). Fuel consumption of free-swimming school versus FAD strategies in tropical tuna purse seine fishing. *Fisheries Research*, 245, 106139. <https://doi.org/10.1016/j.fishres.2021.106139>
2. García-barón, I., Granado, I., Astarloa, A., Boyra, G., Rubio, A., Fernandes-salvador, J. A., Zarauz, L., Onandia, I., Mugerza, E., & Louzao, M. (2022). Ecological risk assessment of a pelagic seabird species in artisanal tuna fisheries. *ICES Journal of Marine Science*, 1–14. <https://doi.org/10.1093/icesjms/fsac136>

3. García-Barón, I., Giakoumi, S., Santos, M. B., Granado, I., & Louzao, M. (2021). The value of time-series data for conservation planning. *Journal of Applied Ecology*, 58(3), 608–619. <https://doi.org/10.1111/1365-2664.13790>
4. Granado, I., Hernando, L., Galparsoro, I., Gabiña, G., Groba, C., Prellezo, R., & Fernandes, J. A. (2021). Towards a framework for fishing route optimization decision support systems: Review of the state-of-the-art and challenges. *Journal of Cleaner Production*, 320(February), 128661. <https://doi.org/10.1016/j.jclepro.2021.128661>
5. Ruiz, I., Basurko, O. C., Rubio, A., Delpey, M., Granado, I., Declerck, A., Mader, J., & Cózar, A. (2020). Litter Windrows in the South-East Coast of the Bay of Biscay: An Ocean Process Enabling Effective Active Fishing for Litter. *Frontiers in Marine Science*, 7(May), 1–12. <https://doi.org/10.3389/fmars.2020.00308>
6. Granado, I., Basurko, O. C., Rubio, A., Ferrer, L., Hernández-González, J., Epelde, I., & Fernandes, J. A. (2019). Beach litter forecasting on the south-eastern coast of the Bay of Biscay: A bayesian networks approach. *Continental Shelf Research*, 180, 14–23. <https://doi.org/10.1016/j.csr.2019.04.016>
7. Hernández-González, J., Inza, I., Granado, I., Basurko, O. C., Fernandes, J. A., & Lozano, J. A. (2019). Aggregated outputs by linear models: An application on marine litter beaching prediction. *Information Sciences*, 481. <https://doi.org/10.1016/j.ins.2018.12.083>

BOOK CHAPTERS

1. Fernandes, J. A., Uriondo, Z., Granado, I., & Quincoces, I. (2021). Tuna Fisheries Fuel Consumption Reduction and Safer Operations. In Södergård C., T. Mildorf, E. Habyarimana, A. J. Berre, J. A. Fernandes, & C. Zinke-Wehlmann (Eds.), *Big data in bioeconomy* (pp. 377–388). Springer, Cham. <https://doi.org/10.1007/978-3-030-71069-9>
2. Arrizabalaga, H., Granado, I., Kroodsmas, D., Miller, N. A., Taconet, M., & Fernandes, J. A. (2019). FAO Area 41 - AIS-based fishing activity in the Southwest Atlantic. In Taconet, M., D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). FAO. www.fao.org/documents/card/en/c/ca7012en
3. Arrizabalaga, H., Murua, H., Granado, I., Kroodsmas, D., Miller, N. A., Taconet, M., & Fernandes, J. A. (2019). FAO Area 34 - AIS- based fishing activity in the Eastern Central Atlantic. In M. Taconet, D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). FAO. www.fao.org/documents/card/en/c/ca7012en
4. Arrizabalaga, H., Santiago, J., Granado, I., Kroodsmas, D., Miller, N. A., & Fernandes, J. A. (2019). FAO Area 47 - AIS-based fishing activity in the Southeast Atlantic Ocean. In M. Taconet, D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). FAO. www.fao.org/documents/card/en/c/ca7012en
5. Arrizabalaga, H., Santiago, J., Murua, H., Granado, I., Kroodsmas, D., Miller, N. A., Taconet, M., & Fernandes, J. A. (2019). FAO Area 31 - AIS-based fishing activity in the Western Central Atlantic. In M. Taconet, D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). FAO. www.fao.org/documents/card/en/c/ca7012en
6. Fernandes, J. A., Granado, I., Murua, H., Arrizabalaga, H., Zarautz, L., Mugerza, E., Arregi, I., Galparsoro, I., Murua, J., Iriondo, A., & Merino, G. (2019). Bay of Biscay VMS/logbook comparison (FAO Subarea 27.8). In M. Taconet, D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382).
7. Gibin, M., Holmes, S., Zanzi, A., Granado, I., Kroodsmas, D., Miller, N. A., & Fernandes, J. A. (2019). FAO Area 27 - AIS-based fishing activity in the Northeast Atlantic. In M. Taconet, D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). FAO. www.fao.org/documents/card/en/c/ca7012en
8. Grande, M., Murua, H., Granado, I., Kroodsmas, D., Miller, N. A., & Fernandes, J. A. (2019). FAO Area 87 - AIS-based fishing activity in the Southeast Pacific. In M. Taconet, D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). FAO. www.fao.org/documents/card/en/c/ca7012en

9. Grande, M., Murua, H., Granado, I., Taconet, M., Kroodsmas, D., Miller, N. A., & Fernandes, J. A. (2019). FAO Area 57 - AIS-based fishing activity in the Eastern Indian Ocean. In M. Taconet, D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). FAO. www.fao.org/documents/card/en/c/ca7012en
10. Grande, M., Santiago, J., Murua, H., Granado, I., Kroodsmas, D., Miller, N. A., Taconet, M., & Fernandes, J. A. (2019). FAO Area 61 - AIS-based fishing activity in the Northwest Pacific. In M. Taconet, D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). FAO. www.fao.org/documents/card/en/c/ca7012en
11. Iriondo, A., Murua, H., Granado, I., Kroodsmas, D., Miller, N. A., & Fernandes, J. A. (2019). FAO Area 18 - AIS-based fishing activity in the Arctic. In Taconet, M., D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). www.fao.org/documents/card/en/c/ca7012en
12. Iriondo, A., Santiago, J., Granado, I., Kroodsmas, D., Taconet, M., & Fernandes, J. A. (2019). FAO Area 21 - AIS-based fishing activity in the Northwest Atlantic. In M. Taconet, D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). FAO. www.fao.org/documents/card/en/c/ca7012en
13. Iriondo, A., Santiago, J., Murua, H., Granado, I., Taconet, M., Kroodsmas, D., Miller, N. A., & Fernandes, J. A. (2019). FAO Area 67 - AIS-based fishing activity in the Northeast Pacific. In M. Taconet, D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). FAO. www.fao.org/documents/card/en/c/ca7012en
14. Merino, G., Coll, M., Granado, I., Gee, J., Kroodsmas, D., Miller, N. A., & Fernandes, J. A. (2019). FAO Area 37 - AIS-based fishing activity in the Mediterranean and Black Sea. In M. Taconet, D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). FAO. www.fao.org/documents/card/en/c/ca7012en
15. Murua, H., Granado, I., Gee, J., Kroodsmas, D., Miller, N. A., Taconet, M., & Fernandes, J. A. (2019). FAO Area 51 - AIS-based fishing activity in the Western Indian Ocean. In M. Taconet, D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). FAO. www.fao.org/documents/card/en/c/ca7012en
16. Murua, H., Ramm, D., Granado, I., Kroodsmas, D., Miller, N. A., Taconet, M., & Fernandes, J. A. (2019). FAO Areas 48, 58 and 88 - AIS-based fishing activity in the Southern Ocean. In M. Taconet, D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). FAO. www.fao.org/documents/card/en/c/ca7012en
17. Santiago, J., Granado, I., Gee, J., Taconet, M., Kroodsmas, D., Miller, N. A., & Fernandes, J. A. (2019). FAO Area 71 - AIS-based fishing activity in the Western Central Pacific. In M. Taconet, D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). FAO. www.fao.org/documents/card/en/c/ca7012en
18. Santiago, J., Granado, I., Kroodsmas, D., Miller, N. A., Taconet, M., & Fernandes, J. A. (2019). FAO Area 77 - AIS-based fishing activity in the Eastern Central Pacific. In M. Taconet, D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). FAO. www.fao.org/documents/card/en/c/ca7012en
19. Zudaire, I., Santiago, J., Granado, I., Taconet, M., Kroodsmas, D., Miller, N. A., & Fernandes, J. A. (2019). FAO Area 81 - AIS-based fishing activity in the Southwest Pacific. In M. Taconet, D. Kroodsmas, & J. A. Fernandes (Eds.), *Global atlas of AIS-based fishing activity - challenges and opportunities* (p. 382). FAO. www.fao.org/documents/card/en/c/ca7012en
20. Södergård, C., Mildorf, T., Habyarimana, E., Berre, A. J., & Fernandes, J. A. (2012). *Big Data in Bioeconomy* (C. Södergård, T. Mildorf, E. Habyarimana, A. J. Berre, J. A. Fernandes, & C. Zinke-Wehlmann, Eds.). Springer, Cham.

TECHNICAL REPORTS

1. Uranga, J., Lopez, J., Grande, M., Lennert-cody, C. E., Quincoces, I., Granado, I., Maunder, M. N., Aires-da-silva, A., Merino, G., Murua, H., & Santiago, J. (2022). *TROPICAL TUNA BIOMASS INDICATORS FROM ECHOSOUNDER BUOYS IN THE EASTERN PACIFIC OCEAN* (May; pp. 12–13). AITTC.

2. Galparsoro, I., Pouso, S., Iriondo, A., Granado, I., Borja, Á., Punzón, A., Mugerza, E., Castro, R., Mandiola, G., Gómez-Ballesteros, M., & Sánchez, F. (2021). *Evaluación de la actividad y huella pesquera en el entorno del cañón de Capbreton* (December). <https://doi.org/10.13140/RG.2.2.19743.64165>
3. Uranga, J., Lopez, J., Grande, M., Lennert-cody, C. E., Quincoces, I., Granado, I., Maunder, Mark, N., Aires-da-Silva, A., Merino, G., Murua, H., & Santiago, J. (2021). *TROPICAL TUNA BIOMASS INDICATORS FROM ECHOSOUNDER BUOYS IN THE EASTERN PACIFIC OCEAN* (May; pp. 6–7). Inter-American Tropical Tuna Commission (IATTC).

ORAL PRESENTATIONS

1. Granado, I., Hernando, L., & Fernandes, J. A. (2022). Towards a framework for fishing route optimization decision support systems in tune purse seiners. *ICES Annual Science Conference (ASC)*.
2. Granado, I., Hernando, L., & Fernandes, J. A. (2022). Towards a framework for fishing route optimization decision support systems. *The Ocean Sciences Meeting*.
3. Granado, I., Hernando, L., & Fernandes, J. A. (2021). Towards a framework for fishing route optimization decision support systems: Review of the state-of-the-art and challenges. *The 3rd NOAA Workshop on Leveraging AI in Environmental Sciences*.
4. Granado, I., Basurko, O. C., Fernandes, J. A., Ferrer, L., & Rubio, A. (2018). Use of Bayesian networks for beach litter prediction. *The XVIth International Symposium on Oceanography of the Bay of Biscay (ISOBAY 16)*.