Work Experience

Apr. 2021 - Apr. 2025	Research associate. HAB and planktonic ecology group. Spanish Oceanography Institute (IEO -CSIC). Tasks undertaken: • Database development, population and management • Experimental Design • Statistical analysis with R • Advanced graphics and maps representation
Aug. 2019	Marine conservation & Marine litter teacher. IMBRSea Summer School, Sven Lovén Centre for Marine Infrastructure, Tjärnö, Sweden.
2018 – 2019	Honorary collaborator in the department of functional biology, University of Oviedo.
Mar. 2017 – Feb. 2018	Researcher in University of Oviedo: Litter associated biota genetic barcoding identification. *De Visu* identification of biota. Beach litter sampling.
Sep. 2016 – May. 2017	Laboratory analysis for the project "Evaluación preliminar de la posible presencia del mejillón pigmeo marrón (*Xenostrobus securis*) en las instalaciones de la central de Aboño (EDP) mediante el uso de herramientas genéticas." (Preliminary evaluation of the possible presence of the brown pygmy mussel (*Xenostrobus securis*) in the facilities of the Aboño power plant through the use of genetic tools.)

Education

Sept. 2016 – July 2019	PhD *Cum Laude* in Chemical, Environmental and Bio-alimentary Engineering (University of Oviedo). Supervisors: [Eva García Vázquez](#) and [Eduardo Dopico Rodríguez](#) ***"Analysis and evaluation of the origin, sociocultural components and biological risks of marine litter in the Asturian coast."*** Focused on: • Integrated Coastal Zone Management • Marine litter threat assessment • Invasive species monitoring and management • Social implications of coastal biological impacts
2016	[Master's Degree in Marine Conservation](#) (University of Oviedo). Focused on: • Integrated Coastal Zone Management (ICZM) • Marine protected areas (MPAs) • Aquaculture • Invasive species • Global change • Evaluation of Impacts • Geographic Information Systems and Remote Sensing Master's Thesis: ***"Social perception of biotic and abiotic marine pollution in the Cantabrian coast. A socioenvironmental approach"***
2015	Bachelor's Degree on Biology (University of Oviedo) Bachelor Thesis: ***"Diversity and function of insectivorous birds in cider apple crop"*** The results of this work were exposed in the 9th National Congress of Applied Entomology with the tittle: "Control biológico de carpocapsa y riqueza de aves en pomaradas asturianas" held at Valencia from 19 to 23 October 2015.

International research and studies

April – Jun. 2018	Doctoral international internship at the University of Klaipeda (Klaipeda, Lithuania). Supervisor: Marija Katarzyte. Focused on: • Acquisition of new competences • Baltic – Atlantic coastal litter comparison • Learn of coastal litter sampling protocols • Monitoring of IAS on marine litter Funded by Erasmus + program grant.

Courses

Nov. 2023	Introducción al python para científicos. CSIC (Online)	30h
Oct. 2023	Control de versiones con git y Github. CSIC (Online)	25h
Nov. 2022	Specialitation programme PostgreSQL for Everybody. Coursera • Database Design and Basic SQL in PostgreSQL • Intermediate PostgreSQL • JSON and Natural Language Processing in PostgreSQL • Database Architecture, Scale, and NoSQL with Elasticsearch coursera.org/verify/specialization/8K49JLXK424D	60h
	Introducción a sistemas Linux y programación bash. IIM-CSIC	25h
Jul. 2022	Data analysis with the tidyverse. Physalia Courses.	20h
April – Oct. 2020	Environmental Management course. Cantabrian Technological Institute	500h
May. 2020	Linux Course. Dicampus	40h
	Introduction to Git. DataCamp	6h
	Building Web Applications with Shiny in R. DataCamp	4h
Feb. 2020	Data Science: R Basics. HardvardX. edX. courses.edx.org/certificates/525d171ebb994e6bb5fbf8d3bcf0efd8	20h
Dec. 2019	Introducción a Data Science: Programación Estadística con R. Universidad Nacional Autónoma de México – Coursera. coursera.org/verify/4P7D5ZQLVD5V	47h
Jun. 2018	Introduction to R. DataCamp	4h
May. 2018	Coastal Ecology, Monitoring & Assessment. Klaipedos Universitetas	60h
May. 2017	Writing of Scientific Articles. University of Oviedo	20h
Feb. 2017	Management and processing of data for research. Statistical Analysis – R Software. University of Oviedo	20h
Feb. 2017	Management and processing of data for research. Introduction to qualitative analysis. University of Oviedo	20h
Aug. 2016	System Approach Framework (SAF) for coastal research and management: From theory to practice. University of Klaipeda	170h
Jun. 2016	R programming language initiation. A professional approach. University of Oviedo	45h

Language skills

Spanish	Mother tongue – Native Speaker	English	C1 – Advanced knowledge
Portuguese	B1 – Basic knowledge		

Publications

Year	
2025	Nogueira, E.; Casas, G.; **Rayon-Vina, F**.; Velasco-Senovilla, E. & Miranda, A. Zooplankton Dynamics at the Northern Boundary of the Canary Current Upwelling System (NW Iberian Peninsula). Prospects From Updated Time Series in the 'Ría de Vigo' and Adjacent Shelf. Zooplankton Challenges in a Changing World. Taylor & Franscis Group. ISBN 9781032662275 - https://doi.org/10.1201/9781032662275
2022	Fernandez, S., Ibabe, A., **Rayon-Viña, F.**, Ardura, A., Bartolomé, M., Borrell, Y. J., ... & Garcia-Vazquez, E. (2022). Flotsam, an overlooked vector of alien dispersal from ports. Estuarine, Coastal and Shelf Science, 107879. https://doi.org/10.1007/s11356-021-12821-0
	Rayon-Viña, F., Fernandez-Rodriguez, S., Ibabe, A., Dopico, E., & Garcia-Vazquez, E. (2022). Public awareness of beach litter and alien invasions: Implications for early detection and management. Ocean & Coastal Management, 219, 106040. https://doi.org/10.1016/j.hal.2021.102130
2021	Ramilo, I., Figueroa, R. I., **Rayón-Viña, F.**, Cuadrado, Á., & Bravo, I. (2021). Temperature-dependent growth and sexuality of the ciguatoxin producer dinoflagellate Gambierdiscus spp. in cultures established from the Canary Islands. Harmful Algae, 110, 102130. https://doi.org/10.1016/j.hal.2021.102130
	Masiá, P.; Ardura, A.; Gaitán, M.; Gerber, S., **Rayón-Viña, F.**; Garcia-Vazquez, E., 2021. Maritime ports and beach management as sources of coastal macro-, meso-, and microplastic pollution. Environmental Science and Pollution Research. Springer. https://doi.org/10.1007/s11356-021-12821-0
	Rayón-Viña, F., Parrondo, M., Borrell, Y. J., & Miralles, L. (2021). Sustainable Sea: A board game for engaging students in sustainable fisheries management. Applied Environmental Education & Communication, 1-16. https://doi.org/10.1080/1533015x.2021.1930608
2020	Ibabe A, **Rayón F**, Martinez JL, Garcia-Vazquez E (2020) Environmental DNA from plastic and textile marine litter detects exotic and nuisance species nearby ports. PLoS ONE 15(6): e0228811. https://doi.org/10.1371/journal.pone.0228811
2019	**Rayon-Viña, F.;** Miralles, L., Fernandez-Rodríguez, S., Dopico, E., Garcia-Vazquez, E., 2019. Marine litter and public involvement in beach cleaning: Disentangling perception and awareness among adults and children, Bay of Biscay, Spain. Marine Pollution Bulletin 141, 112–118. https://doi.org/10.1016/j.marpolbul.2019.02.034
2018	**Rayon-Viña, F.;** Miralles, L.; Gómez-Agenjo, M.; Dopico, E.; Garcia-Vazquez, E.; 2018. Marine litter in south Bay of Biscay: Local differences in beach littering are associated with citizen perception and awareness. Marine Pollution Bulletin 131, 727–735. https://doi.org/10.1016/j.marpolbul.2018.04.066
	Miralles, L., Gomez-Agenjo, M., **Rayon-Viña, F.**, Gyraitė, G., Garcia-Vazquez, E., 2018. Alert calling in port areas: Marine litter as possible secondary dispersal vector for hitchhiking invasive species. Journal for Nature Conservation 42, 12–18. https://doi.org/10.1016/j.jnc.2018.01.005

Journal referee/reviewer

Elsevier	Marine Pollution Bulletin
Springer	Environment, Development and Sustainability

Teaching experience and dissemination activities

Nov. 2024	Scientific disseminator in the activities for the CIMAR project at the DOWN Vigo association. Vigo, Galicia.
Sep. 2023	Scientific disseminator at the Galician Night of Researchers (part of the European Researchers' Night events). Vigo, Galicia.
Sep. 2022	Scientific disseminator at the Galician Night of Researchers (part of the European Researchers' Night events). Vigo, Galicia.
Jun. 2022	Scientific disseminator in the activities for the World Oceans Day at the National Organization of Spanish blind people (ONCE). Vigo, Galicia.
Sep. 2021	Scientific disseminator at the Galician Night of Researchers (part of the European Researchers' Night events). Vigo, Galicia.
Aug. 2019	Marine conservation & Marine litter teacher. IMBRSea Summer School, Sven Lovén Centre for Marine Infrastructure. Tjärnö, Sweden.
2017 – 2018	Teach innovation project: "Juegos de estrategia como herramientas para la enseñanza universitaria del concepto de sostenibilidad en la explotación de recursos marinos" (Strategy games as tools for university teaching of the concept of sustainability in the exploitation of marine resources). Biology Faculty, University of Oviedo.
Nov. 2017	Scientific disseminator at the European Researchers' Night. Avilés, Asturias.
Sep. 2017	Masterclass lecturer at Aula de pensamiento científico taller de Evolución: naves, puertos y contactos. (Classroom of scientific thought. Evolution Workshop: ships, ports and contacts)

Conference disseminations

VGOHAdb - Base de datos de la actuación 3.3 Ecología Operacional del Plancton.(**VGOHAdb - Database of the 3.3 project Operational Ecology of Plankton.)**
Oral resentation.
Asamblea General del Programa de Ciencias Marina de Galicia. Santiago de Compostela. May 2024

VGOHAdb - Base de datos de la actuación 3.3 Ecología Operacional del Plancton.(**VGOHAdb. Database of the 3.3 project Operational Ecology of Plankton.)**
Poster.
Asamblea General del Programa de Ciencias Marina de Galicia. Santiago de Compostela. October 2023

"Ciencia ciudadana y gamificación como estrategias educacionales alternativas para enseñar conservación marina

en las universidades"(**Citizen science and gamification as alternative educational strategies to teach marine conservation in universities**)
Oral presentation
Congreso Internacional de Innovación Docente e Investigación en Educación Superior (CIDICO)
Madrid, November 2019

"Juegos de estrategia como herramientas para la enseñanza universitaria del concepto de sostenibilidad en la explotación de recursos marinos" (**Strategy games as tools for university teaching of the concept of sustainability in the exploitation of marine resources**).
Oral presentation and Poster presentation
Jornadas de Innovación docente.
Mieres, January 2019

"**Fight against beach litter: a matter of perception and awareness**"
Oral presentation
Youmares 9. The Oceans: Our research, Our future
Oldenburg, 11 – 14 September 2018

"**Marine debris, a socioenvironmental approach for new solutions**"
Oral presentation
Alertools: Scientific & Educational Strategies for Early Detection of Biological Invasions
Avilés, 13 – 15 October 2016

La basura marina: el caballo de troya del s. XXI (**Marine litter: Trojan horse of the XXI century**)
Poster presentation
Alertools: Scientific & Educational Strategies for Early Detection of Biological Invasions
Avilés, 13 – 15 October 2016

"Control biológico de carpocapsa y riqueza de aves en pomaradas asturianas" (**Biological control of carpocapsa and richness of birds in Asturian cider apple crops**)
Poster presentation
Congreso Nacional de Entomología Aplicada.
Valencia, 19 – 23 October 2015

Tools & Skills

- R (tidyverse)
- QGIS
- Linux
- PostgreSQL
- Latex, Markdown, HTML & CSS
- Python
- GIT (Github & GitLab)
- Bash/zsh
- LibreOffice / Microsoft Office
- Molecular tools

Registry of intellectual property

Oct. 2018   Educational boardgame: **Sustainable Sea**
                       Authors: Marina Parrondo Lombardia; **Fernando Rayón Viña**; Laura Miralles López

Application No: SAL2019014231
Country of registration: Spain, Principality of Asturias