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# ISRAEL VALLEJO MUÑOZ

## MARINE BIOLOGIST | ENVIRONMENTAL & SPATIAL DATA ANALYST

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### PROFESSIONAL SUMMARY

Marine biologist and environmental data analyst specializing in ecological modeling, GIS, and biodiversity research. Skilled in R, QGIS, and Google Earth Engine for producing spatial analyses and technical reports on species distribution and land-use change. Published researcher currently offering freelance services and developing a public portfolio in environmental modeling and conservation planning.

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### WEBSITES, PORTFOLIOS, PROFILES

- [Portfolio](#)

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### SKILLS

- **Programming & Scripting:** R (ggplot2, terra, sf, dismo, ENMeval), basic Python
- **Geospatial Analysis:** QGIS, Google Earth Engine
- **Ecological Modeling:** MaxEnt, NDVI change detection, species distribution models (SDMs), home range analysis
- **Statistical Analysis:** regression models, biodiversity indices, temporal trends
- **Tools & Platforms:** RStudio, GitHub, Excel
- **Report & Data Communication:** technical writing, scientific visualization, bilingual reporting (EN/ES)

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### WORK HISTORY

**Environmental Data Analyst, 01/2025 - Current**

**(Freelancer)** – Remote

- Deliver spatial and ecological data analyses through self-led projects focused on conservation, fisheries, and land use planning.
- Develop end-to-end geospatial reports using R and QGIS to assess forest cover change, species distribution, and marine spatial dynamics.
- Created a public portfolio showcasing high-impact environmental case studies in biodiversity, deforestation, and climate change scenarios.

**Biological Data Analyst, 01/2025 - 04/2025**

**Outlier AI** – Remote

- Annotate and curate biological datasets for training AI models in biodiversity, fish physiology, and ecosystem health.
- Provide scientific validation of AI-generated outputs, improving accuracy in marine and terrestrial applications.
- Contributed to advancing biological data understanding in automated systems.

**Intern, 02/2024 - 10/2024**

**Endocrinology Laboratory, Università Degli Studi D – Naples, Italy**

- Prepared and analyzed tissue samples from aquaculture and wild fish species for biochemical and histological assessments.
- Conducted spectrophotometric and chromatographic assays of antioxidant profiles.
- Applied advanced histological techniques for reproductive studies.
- Supported research on the physiological health of marine species.

**Teaching Assistant, 04/2024 - 09/2024**

**Università Degli Studi Di Napoli Federico II – Naples, Italy**

- Assisted in laboratory sessions and guided student experiments in marine biology and aquaculture.
- Provided feedback and tutoring in both English and Italian.
- Supported evaluation and review of scientific reports and assignments.

**Research Assistant, 07/2018 - 08/2018**

**Shark Research and Conservation Program – Miami, USA**

- Captured and tagged sharks including *Carcharhinus leucas* and *Sphyrna mokarran* (among other species) for ecological and physiological research.
- Collected and processed biopsy, blood, and morphometric data.
- Participated in marine field expeditions with Dr. Neil Hammerschlag's team.

**Research Assistant, 04/2017 - 01/2018**

**National Fish Collection – Mexico City, Mexico**

- Performed morphometric analysis and skeletal clearing techniques for bony fish and sharks.

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## EDUCATION

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**Master of Science: Marine Biology and Aquaculture, 10/2024**

**Università Degli Studi Di Napoli Federico II - Naples, Italy**

- Thesis Statement: Recent Record of *Coris julis* in Mellah Lagoon: Role of Morphological Studies in a Changing Climate

**Bachelor of Science: Biology, 01/2021**

**Universidad Nacional Autónoma De México - Mexico City, Mexico**

- Thesis Statement: Reproductive Aspects of the Deep-water Shark *Etmopterus schultzi* (Bigelow, Schroeder, Springer, 1953) in the Southern Gulf of Mexico

LANGUAGES

Spanish



Bilingual or Proficient (C2)

English



Advanced (C1)

Italian



Upper intermediate (B2)