

Company Description

At AZTI, we transform science into solutions that respond to the great challenges of the sea and food value chain. To do this we develop sustainable products, services and business initiatives aimed at activating the industrial fabric while recovering and preserving natural resources.

Information

 **Deadline:** 2020-01-15
 **Category:** Business
 **Province:** Bizkaia

 **Country:** Basque Country
 **City:** Sukarrieta

Company

AZTI



Main functions, requisites & benefits

Main functions

JOB DESCRIPTION Area: Marine Ecosystems Functioning Location: Sukarrieta (Basque Country, Spain)
Contract type: Full time **Starting date:** From January 2020 **Contract duration:** 18 months **Background:** Previous research suggests that environmental DNA (eDNA) has the potential of providing information about the macroorganisms inhabiting a certain aquatic environment without the need of seeing or sampling them. An increasing number of studies are applying this method to study marine and, particularly, freshwater environments, suggesting its potential to ease aquatic monitoring. Yet, no evaluation or management programs integrate eDNA based estimates as environment or resources status indicators, probably to a lack of i) standardized procedures, ii) thorough evaluation of eDNA derived measures as indicators, iii) communication with relevant stakeholders and iv) technology transfer to service providers. Moreover, eDNA has been almost exclusively explored as a tool to derive taxonomic composition of an environment, but there are other potential applications of eDNA (such as genetic diversity estimations) that could provide additional management relevant biological anthropological information. **Objectives:** Using four case studies that span three aquatic environments (river, estuary and ocean) and that focus on diadromous fish, commercial marine fish, deep-water elasmobranch and fish, and cetaceans and birds to tackle these questions, the project aims at developing and evaluating eDNA based indicators that will be integrated in to environment and resources evaluation programs. The project will also include the exploration of wider range of applications of eDNA beyond community composition studies and the development of standardized and logistically viable procedures for deriving relevant data from eDNA. **Funding:** The State Research Agency (AEI) of the Ministry of Economy, Industry and Competitiveness of Spain. (Project: CTM2017-89500-R) and the European Regional Development Fund (ERDF).

Requisites

PhD in a relevant discipline (biology, genetics, bioinformatics, etc.). Experience in analysing high-throughput sequencing data for biodiversity analyses. Good level of written and spoken English. Excellent writing and oral communication skills. Other valued skills: Experience in other high-throughput sequencing applications. Knowledge of Unix, R, programming (python, perl...). Experience in eDNA field sampling. Experience in molecular laboratory techniques. Experience in fisheries management-related research. Result oriented working capacity. Availability to travel. Project management. Driving licenc. **Inquiries:** For more information on the position, interested candidates can directly contact Naiara Rodriguez-Ezpeleta (nrodriguez@azti.es)