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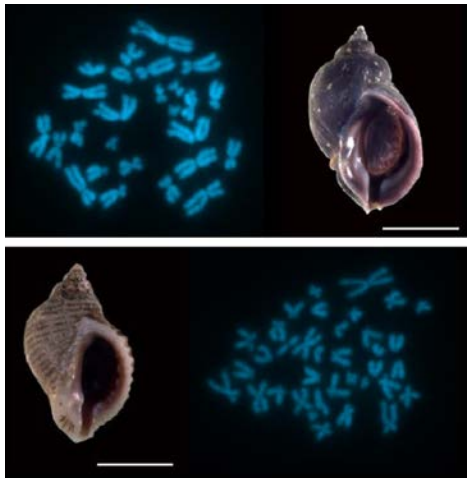
Nationality: Spanish

Orientation: Ocean observation and Global change
Specialization Area: Global change
Research Line: 1.10 Impact on biodiversity



PhD project: **Genetic analysis of the morphological and karyological polymorphisms in Galician populations of *Nucella lapillus* (L)**

Supervisors: Dr. Juan José Pasantes Ludeña (University of Vigo)
Dr. Juan Galindo Dasilva (University of Vigo)

Summary: One of the driving forces of evolution is the adaptive potential of species. The ability to adapt to new environmental conditions is of fundamental importance, among others, in processes of: a) ecological speciation leading to the formation of new species; b) adaptation to new conditions caused by drastic changes in ecosystems as a result of, for example, climate change and c) invasion of new ecosystems that can affect the stability thereof. Understanding these processes and the interactions among them is crucial in evaluating risks to the conservation of biodiversity.

In the Galician coasts there are different species of gastropods belonging to the family Muricidae, all predating on bivalve's molluscs. The native species, *Nucella lapillus*, presents a special interest, both at the morphological and chromosomal levels. Determining the genetic variability of this autochthonous species in the different populations will help us to improve our knowledge about the three processes mentioned above. This species has potentially adaptive phenotypic variability. Moreover, *N. lapillus* is one of the few species showing a Robertsonian chromosomal polymorphism (2n = 26-36). The genetic variation detected in these populations will be related to their degree of dispersion allowing us to predict future dynamics of these populations in Galicia and, therefore, taking appropriate measures for conservating biodiversity and stabilizing the ecosystem.