

<http://consevol.org/consgentropicscourse.html?fbclid=IwAR35qmiU6bu1Ms7cmQdR9eaneUrsfWr7kj2v7NKzBIBZy3ZrYgSwMdkpJ44>

WINTER SCHOOL 2019-2020

## Conservation Genetics in the Tropics Course



Many conservation genetics tools have been developed for use in temperate other high latitude habitats, and so not all of these tools translate to the tropics. Tropical habitats share some features which complicate the application of some conservation genetics tools which are heavily relied upon in higher latitudes, and also share some basic questions and problems that are less of an issue in higher latitudes or other, better studies and/or less diverse habitats.

This course is designed with students and practitioners of Conservation Biology or Conservation Genetics in the tropical regions of America, Africa and Asia in mind.



## ***Logistics***

The course will be **January 26 to February 1, 2020**, in the [Doñana Biological Reserve](#) .

The park is generally cooler than Seville, and casual warm clothing is most appropriate. Participants are encouraged to bring their own laptop computer for use in practical exercises associated with the lectures.

The **cost** of the course is **€595**, including lodging and food in the Reserve and transport to the Reserve from Seville. Scholarships available for researchers and practitioners from tropical countries.

### **How to apply?**

Please, download here the [application form](#) .

Optionally, you can also apply for [financial aid](#) and [participation in an independent study](#) .

Please send your application to [consgentropics@consevol.org](mailto:consgentropics@consevol.org)

### ***Course topics***

This course will discuss practical issues, genetic and genomic theory, tools and analyses as applied to issues relevant to conservation in the tropics.

Some basic questions of conservation importance include describing species diversity, determining species distributions, characterizing the basic biology of species, and understanding demographic history and population size and structure. Underlying biogeographic histories that have shaped communities, and the biotic interactions within those communities are also of fundamental importance.

#### **Biogeography**

An understanding of the general patterns underlying observed biodiversity will help determine what the major drivers are, and predict where described diversity could be found.

#### **Species identification**

The species diversity in the tropics is still dramatically underdescribed, even in groups such as vertebrates. The combination of different data sets and analyses may help identify new species. Phylogenetic trees have been important in species prediction, but describing a new species is much more than sequencing the mitochondria.

#### **Species distribution**



The distribution of many species in the tropics is unknown, but fundamental to conservation. New tools including eDNA can be used to glean information on the distributions of a wide variety of taxa.

### **Basic biology**

Genetic tools can be used to learn about the basic biology of little known, often difficult to observe taxa such as diet, social structure of community, and dispersal.

### **Populations**

A characterization of the population(s) is fundamental to conservation, and includes questions such as what are the populations? How many individuals are in the populations? How are the populations related, and how much gene flow occurs? What is the demographic history of the population?



## ***Course instructors***

*~pending updates~*

**Rosalia Piñeiro**



**Jennifer Leonard**



Santiago Castroviejo-Fisher



Carles Vilà



Ines Sanchez-Donoso



Jan Axtner

