

## Tandayapa Cloud Forest Station

### Current projects

- **Birds along an altitudinal gradient (Elisa Bonaccorso PhD)**

We are interested in studying patterns of passerine bird abundance along a 3000 m altitudinal gradient in Pichincha. Our research provides a baseline of information that can help in monitoring communities, populations and ecosystems at various sites and over time, and can also help us clarify source-sink population dynamics in the forest mosaic of this tropical montane ecosystem.

### Future projects

- **Long-term monitoring**

We would like to establish and maintain long-term monitoring programs to track trends in bird populations and communities. This information will help us understand how tropical bird species are adapting to fluctuating climatic conditions, and will also allow us to identify alterations in migration patterns, breeding seasons, and changes in distribution.

- **Bird-plant interactions**

We are interested in studying the roles of tropical birds in pollination and seed dispersal in montane cloud forest. We would like to explore bird interactions with specific plant species and determine the role of some bird species in forest regeneration and ecosystem functioning.

- **Acoustic ecology:**

We are interested in exploring the vocalizations and communication behaviors of Andean birds, which may provide information on their habitat use, territory defense and mating strategies. For this, we plan to use advanced audio recording technology and perform artificial intelligence analysis.

- **Disease ecology:**

We are seeking allies and collaborators to initiate research focused on the prevalence and impacts of diseases, such as avian malaria and other pathogens, on Andean tropical bird populations, including possible transmission dynamics and host-pathogen interactions.

- **Conservation strategies:**

We would also like to collaborate with government agencies and NGOs to develop science-based conservation plans and policies that mitigate threats to Andean bird species and their habitats.

- **Citizen science:**

We are also interested in promoting citizen science initiatives and community participation in bird research and conservation efforts. Local communities can significantly contribute information and actively participate in conservation efforts.

**Do you wish to carry out research activities at TCS?**

Research activities are related to the academy for which we always customize them. always make them personalized. If you would like to carry out research in this line or if you have another research topic that you think you could contribute, please write to Sofía Carvajal (scarvajal@usfq.edu.ec). Briefly describe your project, the type of data you need to collect and when you would like to carry it out. data you need to collect and when you would like to carry it out.

**Allied researcher (Ornithologist).**

**Elisa Bonaccorso PhD.**

**Universidad San Francisco de Quito**

**Area of expertise:**

- Evolutionary biology
- Bird Ecology
- Bird conservation

**Interests.** Mainly in the areas of evolutionary biology, ecology and conservation. He works mainly in three lines of research: the biogeography and phylogeography of Andean birds, both regionally and locally; the ecology of avian malaria infections; and the use of geographic information systems (and other tools) for the delimitation of conservation areas and the evaluation of the effect of climate change on natural populations.