



HUMAN RESOURCES DEPARTMENT VOLUNTEER PROGRAM

Announcement

Volunteer Opportunity in the Area of:

CONTROL OF THE HIGHLY INVASIVE FLY, PHILORNIS DOWNSI

Application deadline: October 19, 2026.

Start date: January 5, 2027.

Duration: minimum 2 months, maximum 6 months

Introduction

Philornis downsi, commonly known as the avian vampire fly, is an invasive species introduced to the Galápagos Islands around the 1960s. Due to the absence of natural enemies that regulate its populations, this species has become one of the main threats to the archipelago's land birds. The impact of *P. downsi* stems from the blood-feeding habits of its larvae, which feed on the blood and tissues of chicks while they remain in their nests. This parasitism significantly reduces chick survival and affects the reproductive success of numerous bird species, including those classified as threatened or critically endangered. To date, there are no control methods that effectively mitigate the impact of this parasitic fly. Despite significant advances achieved through laboratory and field research, knowledge gaps remain regarding fundamental aspects of its biology, physiology, and reproductive ecology, limiting the development of more effective management strategies.

To identify control mechanisms, in 2012 the Galápagos National Park Directorate (DPNG) and the Charles Darwin Foundation (CDF) organized an international workshop attended by specialists in biology, insect management and control, and ornithology. The workshop concluded that the development of effective tools for managing *P. downsi* would depend on a coordinated effort among researchers from different disciplines and countries. One of the main requirements identified was to establish and maintain a colony of the species under controlled conditions to ensure a continuous supply of individuals for research.

Rearing *P. downsi* in the laboratory requires an ongoing commitment to properly maintain all stages of its life cycle, from immature stages to adults. This makes it possible to conduct research aimed at optimizing production protocols, improving the quality of reared individuals, and generating knowledge about its biology and

Quito: Francisco Andrade Marín E6-122 y Av. Eloy Alfaro. + 593 (2) 2 231 174 **Galápagos:** Av. Charles Darwin s/n, Santa Cruz, Puerto Ayora. + 593 (5) 2 526 146 The 'Charles Darwin Foundation for the Galapagos Islands', in French 'Fondation Charles Darwin pour les îles Galapagos', Association internationale sans but lucratif (AISBL), has its registered office at 54 Avenue Louise, 1050 Brussels, Belgium. Trade Registry # 0409.359.103

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behavior.

Therefore, this volunteer placement aims to support research on the biology, physiology, and ecology of *P. downsi* by carrying out activities that ensure the continuous production and maintenance of individuals in the laboratory. The information generated will contribute to the development of innovative strategies for controlling this invasive species and, consequently, to the conservation of Galápagos land birds, especially those in the highest extinction-risk categories.

Volunteer Placement Conditions

The Charles Darwin Foundation (CDF) will provide the equipment and materials necessary for the project, as well as logistical support for field trips to other islands. Technical guidance will also be provided by the CDF scientific team, in accordance with institutional policies and procedures. The volunteer will be under the supervision of the scientist responsible for the project and will follow the schedule assigned by the CDF. Compliance with the Internal Regulations and the CDF Procedures Manual will be mandatory, as will strict adherence to the regulations of the Galápagos National Park Directorate (DPNG) during field activities.

Required Profile

- Completed bachelor's-level studies in a field related to biology.
- Interest in insect biology and laboratory activities.
- Experience working with insects or bacteria.
- Experience in research projects.

Desirable Competencies

- Teamwork
- Resilience in laboratory work / fieldwork
- A positive attitude and openness to feedback;
- Responsibility, proactivity, and commitment to conservation;
- Openness to the opportunity to participate in fieldwork activities that may take place outside regular office hours, including occasionally on weekends.
- Willingness to carry out activities involving animal blood.

Responsibilities

The volunteer will support the following key activities under the direct supervision of Administrator of the Philornis Laboratory:

- Support in collecting field data and flies



- Support in collecting data on fly mortality and survival
- Assistance in preparing materials for field trips
- Assistance in preparing diets for adult flies
- Assistance in collecting and processing larval diets
- Assistance in cleaning and organizing materials
- Support in the dissection of specimens
- Participation in laboratory experiments
- Support in nest inspections
- Support in sex identification and the separation of newly emerged or collected specimens
- Assistance in recording observations in the laboratory and the field
- Support in feeding and handling adults
- Participation in aerial trap inspections

Benefits:

- Uniform provided.
- Accident insurance.
- Accommodation (for Ecuadorian and International applicants)
- Food allowance (for Ecuadorian or local applicants)

How to Apply?

Interested applicants must complete the online form available at the following link: <https://forms.office.com/r/jf7Y7gAJfm>, attaching the requested documentation in accordance with the instructions provided in the form.

Please note that compliance with the instructions for completing the form, the established deadlines, and the required formats for attachments is mandatory.

Only applications that fully meet all established criteria regarding profile, format, documentation, and content will be considered.

Do you have any general questions about the volunteer opportunity?

If you would like more information about the volunteer opportunity, please send

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your questions to the following email address so that we can respond appropriately:

✉ vol@fcdarwin.org.ec