

Project Update: June 2023

1. Summary

Field work began in April 2022, with the objective of recognising terrain and identifying local study areas within the high parts of the Nahuelbuta mountain range. A first approach to the local community was also carried out through an activity on fungi with the collaboration of the Municipality of Curanilahue, where they were told about the project. The project was well received and permission was obtained to access some areas to collect mushrooms.

In addition, arrangements were made with the authorities to obtain collection permits and access to the sectors of interest to be studied. Interest was shown in the collections and activities proposed in order to learn about the biodiversity of fungi that inhabit the high sectors of the mountain range.

We collected more than 200 specimens together with the work team, of which there are possible new records or new species, so they are being prepared for DNA extraction. We expect to identify the rest of the species with classical and molecular taxonomy techniques.

Among the edible mushrooms found were: *Cortinarius lebre*, *Boletus loyo*, *Ramaria* spp. (changles).

2. Objectives

To finish the field work in Nahuelbuta and manage the permits with the local and administrative authorities to carry out activities in the future.

Conduct activities to learn about the diversity of fungi and the degree of knowledge of these organisms by the community.

3. Field work

Two zones will be considered in this research: Trongol Alto and Cuesta de Caramávida, located at an altitude between 800 - 1,300 m asl, where native forests of the protected species *Araucaria araucana* and *Nothofagus* spp. predominate, with the highest levels of biodiversity and endemism in Chile, but at the same time the greatest environmental alterations and a very deficient protection of the ecosystems.

In spite of some difficulties encountered during the field trips, more than 200 specimens were collected in the study areas. Among them there may be new records for the country and some possible new species. Seven field trips have been carried out to date, and the campaigns have been successful and we are very satisfied with the objectives achieved to date.

Now, we are waiting to carry out a Spring-Summer campaign to see if we find new specimens, typical of those seasons. We also intend to make a guide or audiovisual material to disseminate the final results of this study.

On the other hand, as part of the field work, the project was presented to the

community, where the objectives, scope and schedule of activities were outlined.

The project was generally well received, especially by women and older adults who are familiar with the collection of wild edible mushrooms and who are interested in the subject of the study.

4. Accomplishments

Several species have been identified so far: *Cortinarius magellanicus*, *C. lebre*, *Boletus loyo*, *Ramaria flava*, *Ramaria botrytis*, *Calycina citrina*, *Mycena cyanocephala*, among others. The species of *B. loyo*, *Ramaria*, *Cortinarius lebre* are of interest because they are edible.

This year two new excursions were made and we intend to make one or two more in spring-summer, as well as give talks open to the community with printed material.



Figure 1. Field work searching for macrofungi in Nahuelbuta mountain range.

5. Problems and help needed

In general, the project is progressing well, despite the problems we had to resolve in order to release the funds deposited last year.

This is one of the first projects to document the fungal richness of the study area (Figure 1). There is a lot of work to be done, from the academic point of view and it represents a challenge for the surrounding community, which includes Curanilahue and other neighbouring sectors.

There were some problems with the dehydration of the samples, due to the high

humidity, but this was solved by using more powerful equipment and changing the packaging of the samples.

Several specimens of *Boletus loyo* (Figure 2), a species classified EN (Endangered) according to the IUCN, were found. We also found specimens of *Pleurotus ostreatus* (Figure 3), a highly desirable edible wild mushroom that grows on *Araucaria araucana*.



Figure 2. *Boletus loyo*, species found in the field, catalogued as Endangered (EN).



Figure 3. Collection of wild *Pleurotus ostreatus* mushroom.

A talk and an activity with children was carried out with the collaboration of the Municipality of Curanilahue (Figure 4). The talk was about the mushrooms that inhabit the Nahuelbuta mountain range and the activity with children was about mushroom illustration with coloured pencils and other materials.



Figure 4. Record of the activity carried out with children in the municipality