

Project Update: April 2017

Introduction

In this first report we inform about progresses we have achieved in research (field and lab work) and outreach. So far, the work has been done without major problems.

1-Ecosystem Role of Native Cockroaches in the Chilean Matorral

During April 2017 we started fieldwork at Los Molles ($32^{\circ}14'27.2''\text{S}$ $71^{\circ}31'13.8''\text{W}$) (Figure 1). There we successfully found nymphs during night field surveys and collected samples for morphological and stable isotope studies. We also went to Pichidanguí's bay ($32^{\circ}08'09.9''\text{S}$ $71^{\circ}31'14.6''\text{W}$), another site where it is possible to find a small portion of Mediterranean Matorral. This location, around 7 km north from Los Molles, it is more disturbed by human activities such as illegal dump, housing and exotic flora replacement. At this place we did not find enough cockroach nymphs to perform analyses.

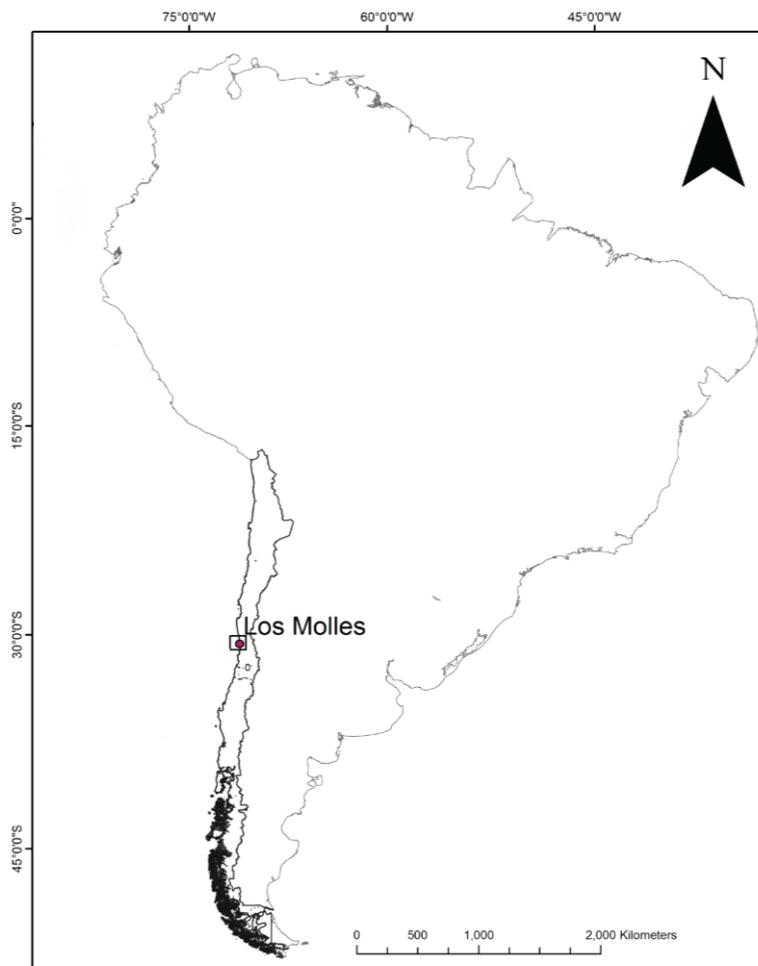


Figure 1. Los Molles location relative to South America

We collect juvenile specimens (Figure 2 and 3) for the study of diet and morphology of mouthparts and digestive system. Additionally we take samples of the substrate to have a starting point at the time of the analysis. In lab work we started the first exploration of mouthparts and digestive system morphology (Figure 4).



Figure 2: *Moluchia brevipennis* nymph. (Los Molles. Abril, 2017)



Figure 3: Constanza collecting cockroaches in *Puya chilensis* leaves. (Los Molles. Abril, 2017)

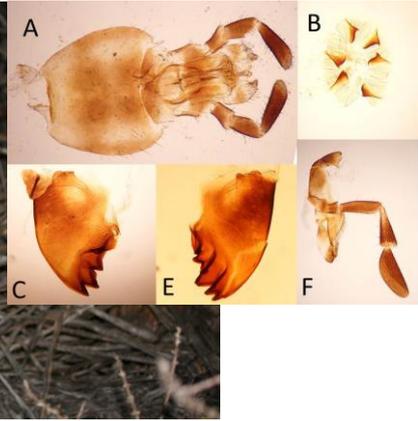


Figure 4: Cockroach's mouthparts and part of digestive system. A: Labrum, B: Proventriculus, C-E: Jaw, F: maxillae. (Santiago. Abril, 2017)

2-Outreach

Logo Update: We wanted to update the image of the project through a new logo, but that it conserved the original graph (Figure 5). In this new image we incorporate the flower of the Chagual (*Puya berteroniana*) to illustrate the cockroach-plant interaction. Besides we have observed a positive attitude of the people towards cockroaches when they see them on the flowers.



Figure 5. Molukia Project's logo: Left old and right new logo

