

Project Update: December 2018

The first half of this 1-year project has been full of exciting results and activities. So far, we have put a lot of effort into the outreach activities in order to raise public awareness towards Monito del Monte (*Dromiciops gliroides*). We have been in constant collaboration with Senda Darwin Biological Station (SDBS). We have performed our first workshops for the local community (November and December 2018) with two groups of secondary school students from Colegio Bicentenario Domingo Santa María, Puerto Montt. In these workshops we showed the children the habitat of Monito del Monte, the importance of the conservation of natural hollows and how you can get involved in protecting this species and many others that live in the temperate rainforest of the Chiloé Island (Figure 1).



Figure 1. Prof. Juan Luis Celis-Diez from The Pontifical Catholic University of Valparaiso (PUCV) showing the students the two species of marsupials that inhabit the temperate rainforest of the Chiloé Island (*Dromiciops gliroides* and *Rincholestes raphanurus*) and explaining the importance of community involvement in conservation, for these species and many others.

We were very lucky in finding two *D. gliroides* in one nest so the students had the chance to meet the Monito del Monte! It was a very exciting moment from everyone (Figure 2).

We have performed two scientific talks. In the first one, Dr Jennifer Hetz presented the preliminary results of the project to undergraduate students from The Pontifical Catholic University of Valparaiso (PUCV). In this talk, we also had the participation of Prof. Peter Temple-Smith (Monash University) who talked about reproduction in marsupials. Prof. Juan Luis Celis-Diez (PUCV) gave a second talk to the students



Figure 2. Prof. Juan Luis Celis-Diez from PUCV showing the students the special anatomical adaptation for the arboreal life of the Monito del Monte such as the prehensile tail that has adapted to be able to grasp or hold to the small branches of vegetation and the opposable thumbs which also gives the ability to grasp to things.

from the field course 'Ecology and Biodiversity of the South American Temperate Rainforest' which is done every year at SDDBS (<https://twitter.com/IEBChile/status/1072485865207881729>). We also participated in the 35th annual meeting from The Australian and New Zealand Society for Comparative Physiology and Biochemistry (ANZSCPB 2018) where Dr. Jennifer Hetz presented again the preliminary results of this project (<https://anzscpb.curtin.edu.au/wp-content/uploads/sites/18/2019/01/ANZSCPB-2018-AbstractBookPhoto.pdf>).

In terms of fieldwork activities, so far we have conducted two surveys, the first in August 2018, where we collected samples for kinship analysis and recorded the core temperature of the individuals from different nests (Figure 3).

We also conducted fieldwork in November-December 2018 (scientific research permit N°7628/2018) with the collaboration and visit of two colleagues from Australia, Prof. Peter Temple-Smith and Prof. Marilyn Renfree (The University of Melbourne). In this fieldwork we used modified tomahawk traps to catch *D. gliroides*. Animals were released at the same site after processing (Figure 4). Samples collected during this fieldwork will be used to analyse the mating system in *D. gliroides*.



Left: **Figure 3.** Fieldwork August-2018. Measuring core temperature in a torpid *D. gliroides* using a thermometer for a T-type thermocouple (BAT-12R) with a rectal probe for mice (RET-3) (ADInstruments). Right: **Figure 4.** Fieldwork November-December 2018. Measuring body weight in *D. gliroides* using a pesola. On the left field biologist María Ignacia Undurraga, middle veterinary honours (eq) student Sebastian García and right Prof. Peter Temple-Smith. <https://twitter.com/juanluiscelis/status/1066502926686961664>

Acknowledgments

