

# Nest box occupation by *Dromiciops gliroides*: Research and conservation opportunities

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## Introduction

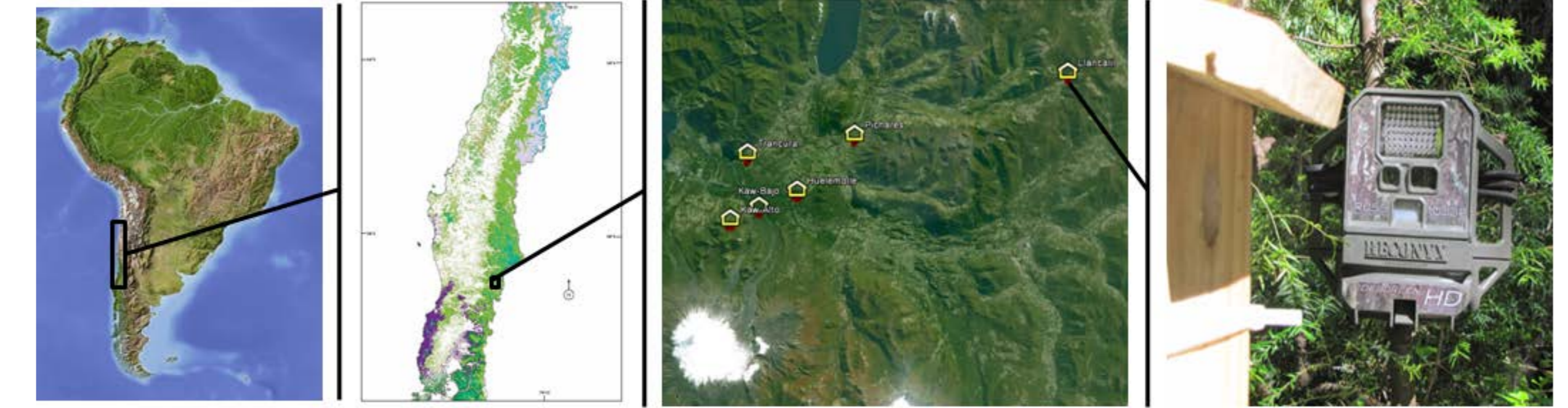
- *Dromiciops gliroides* (Monito del monte) is a South American marsupial, considered “Near Threatened” by IUCN.
- A gondwanan “living fossil”, unrelated to other New World marsupials.
- Uses natural cavities for hibernation and reproduction. Past studies have used Sherman traps, placed in the understory



**Objective:** Obtain information of *D. gliroides* ecology, using artificial nest boxes.

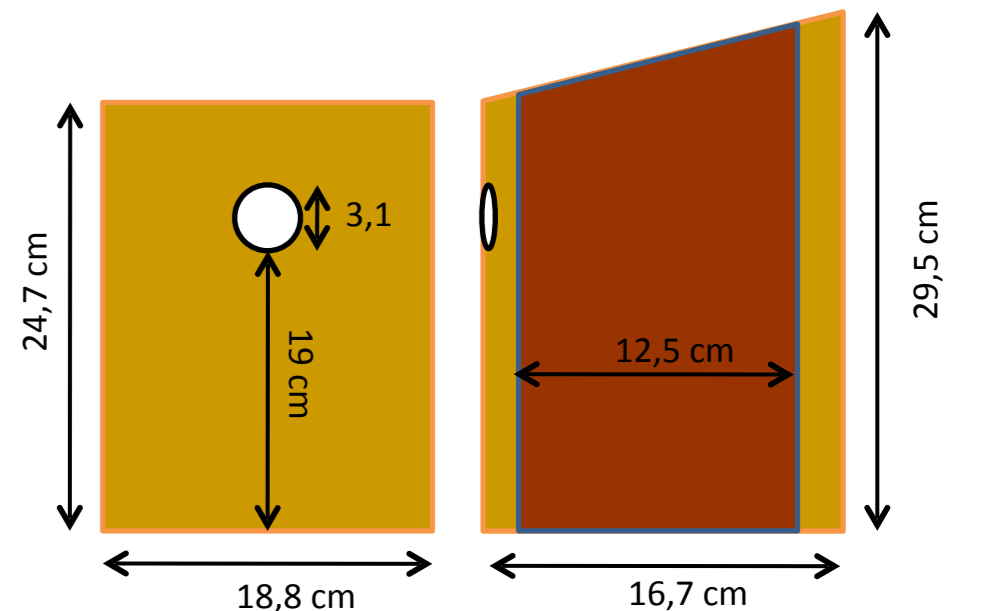
## Methods

**Study Area :** Andean Temperate Forest, IX Región de la Araucanía, Chile.  
Two old growth forests and four early successional forests were included.



### Experimental design

- 240 nest boxes (40 per forest stand) were installed.
- 10 camera traps were used (Reconyx).
- Two years monitoring (2010-2012).



## Nest box use

- A total of 83 nest boxes (35%) were used by *D. gliroides*.
- Old growth forests (OGF) have higher nest box occupation (Fig. 1).
- Nest boxes were used primarily for hibernation (64%), but also for predation of bird nests (51%) and for reproduction (14%).

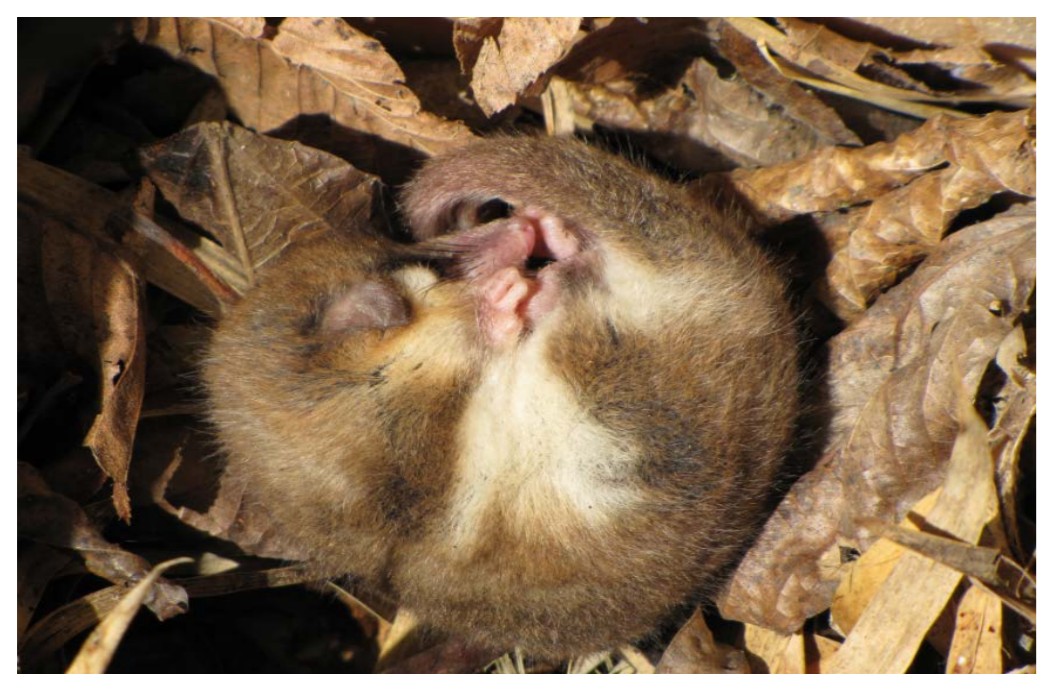
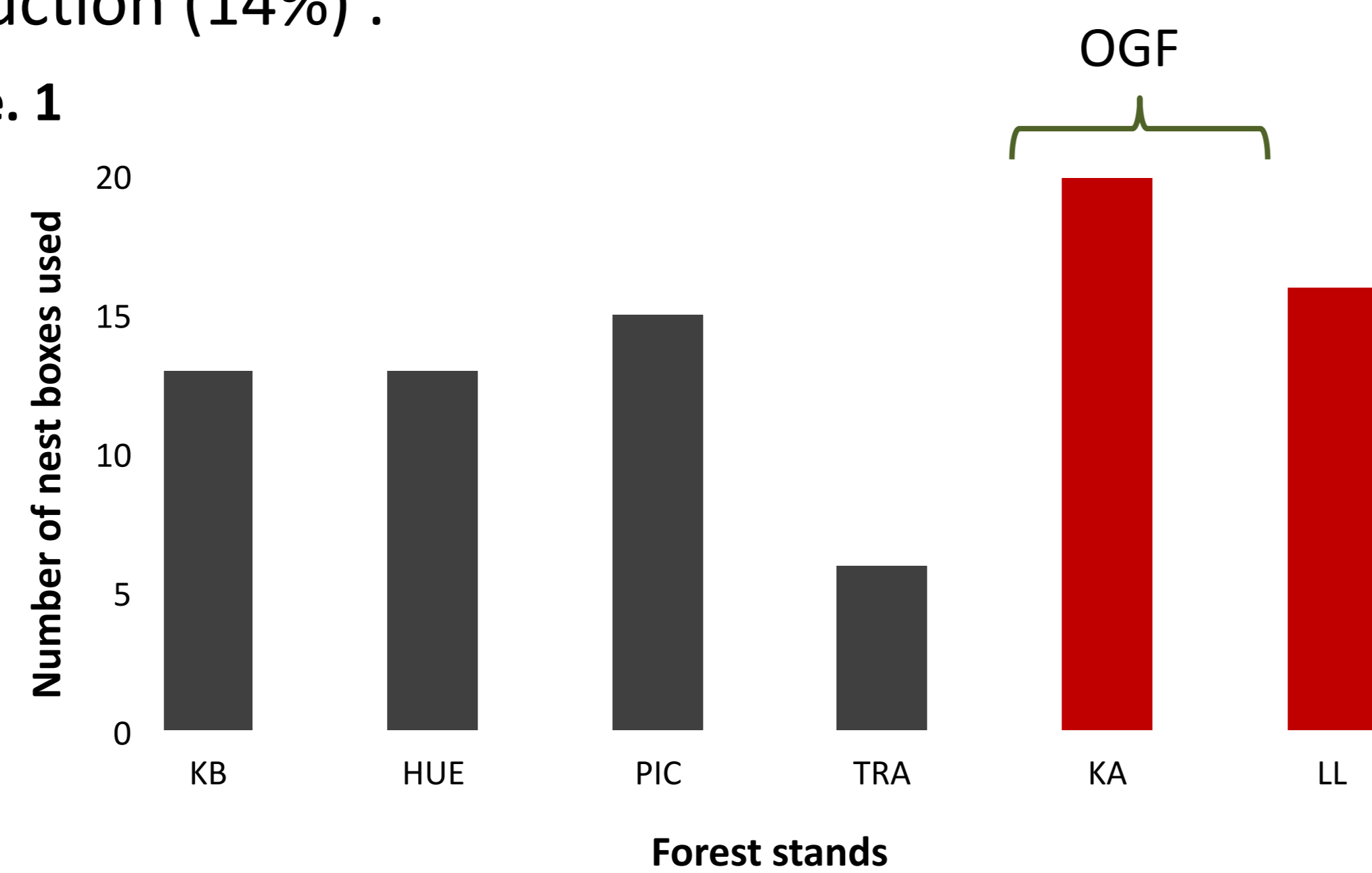


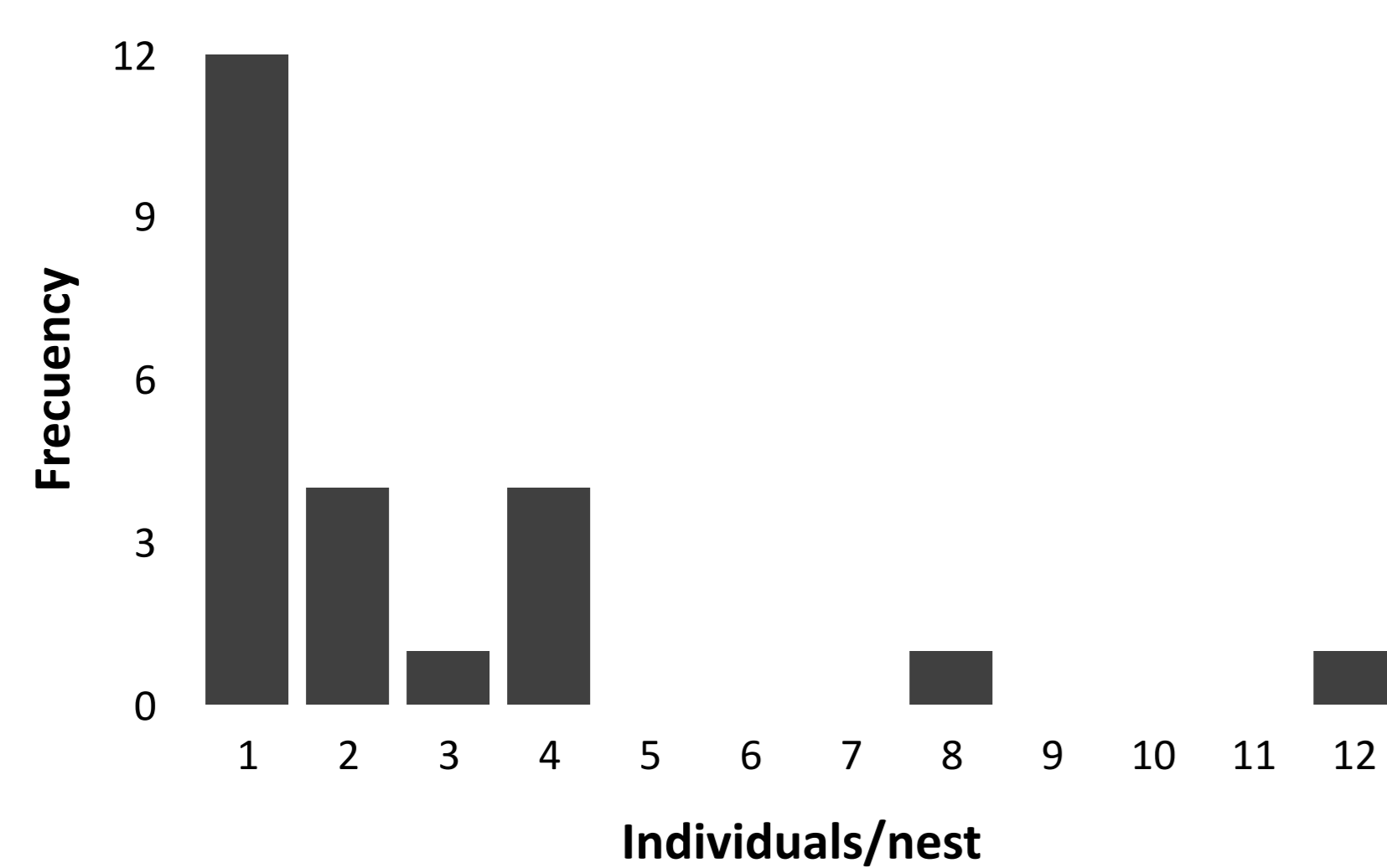
Figure. 1



## New Information

- First observations of adult bird predation by *D. gliroides* (n = 3).
- Communal nesting up to 12 individuals/nest (Fig. 2).

Figure. 2



## Behaviour



**Figure 3.** Pictures of the reproduction periods. I) Intra-marsupium Development, II) Extra-marsupium Development, and III) Nocturnal Family Excursions.

## Opportunities

### Natural history

Data on the reproduction biology and social behaviour of this rare marsupial may be assessed.



Research

“Valuable information of this rare marsupial may be collected using nest boxes and camera traps”.

Conservation

Outreach

### Habitat degradation

Compare reproductive success and behaviour between different types of forest stands and evaluate limitation of natural cavities.

### Flagship species

Pictures and videos of this “living fossil” may raise public awareness for the conservation of Chilean temperate forest.

## Discussion

- Higher nest box occupation for Old growth forests suggests more abundance of *D. gliroides*, probably because of lower habitat fragmentation.
- The high number of individuals for communal nesting may be a survival strategy in high altitude forest stands.

## Acknowledgements

CONAMA FPA, 09-078-2010, 09-1-009-2012, CONAF. Jerry Laker, Alberto Dittborn, Cristina Délano, Ricardo Timmerman, Mónica Sabugal, José Tomás Ibarra, Rowena Cortés, Matías Acevedo, Lina Forero, Alejandra Vermehren. MDM & TAA are supported by CONICYT scholarships.