

# New insights of seasonal fluctuations and distribution of *Notiothauma reedi* Maclachlan, 1877 (Mecoptera: Eomeropidae) a rare living fossil from the Chilean biodiversity hotspot

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## BACKGROUND INFORMATION

*Notiothauma reedi* (Fig. 1) is the only extant member of the Eomeropidae family (order Mecoptera) and is considered a living fossil. This species is endemic to the Chilean Winter Rainfall - Valdivian Forests, which belong to one of the world biodiversity hotspots, and occurs in the Central-South area of the country in humid and forested locations (Figs. 2A-C). During its larval stage is found among roots and leaf litter, while the adult inhabits shaded and humid places. The insect exhibits a saprozoic behaviour, feeding on decaying carcasses. In remaining patches of the coastal Maulino Forest, we established two sampling plots (at the localities of Pelluhue and Cobquecura).

## METHODS - RESULTS

Specimens were sampled using 5 pitfall traps during a whole year. Traps were partially concealed within the substrate and were monthly emptied. Samples were transported to the laboratory to carry out specimen identification and counts. Seasonal variation and abundance of individuals of *N. reedi* were registered and plotted to identify flying periods and abundance peaks.

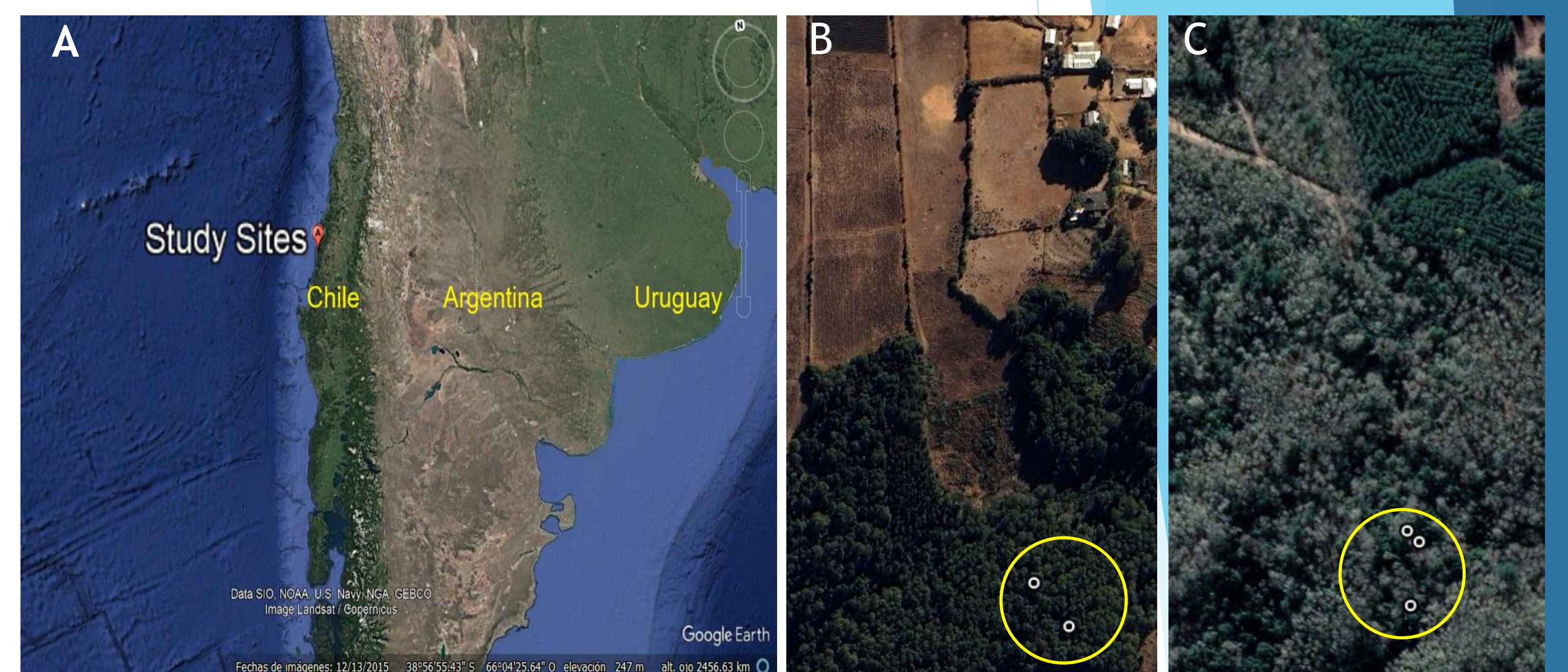


Figure 2. A-C Sampling sites location. Images from GoogleEarth-Pro©

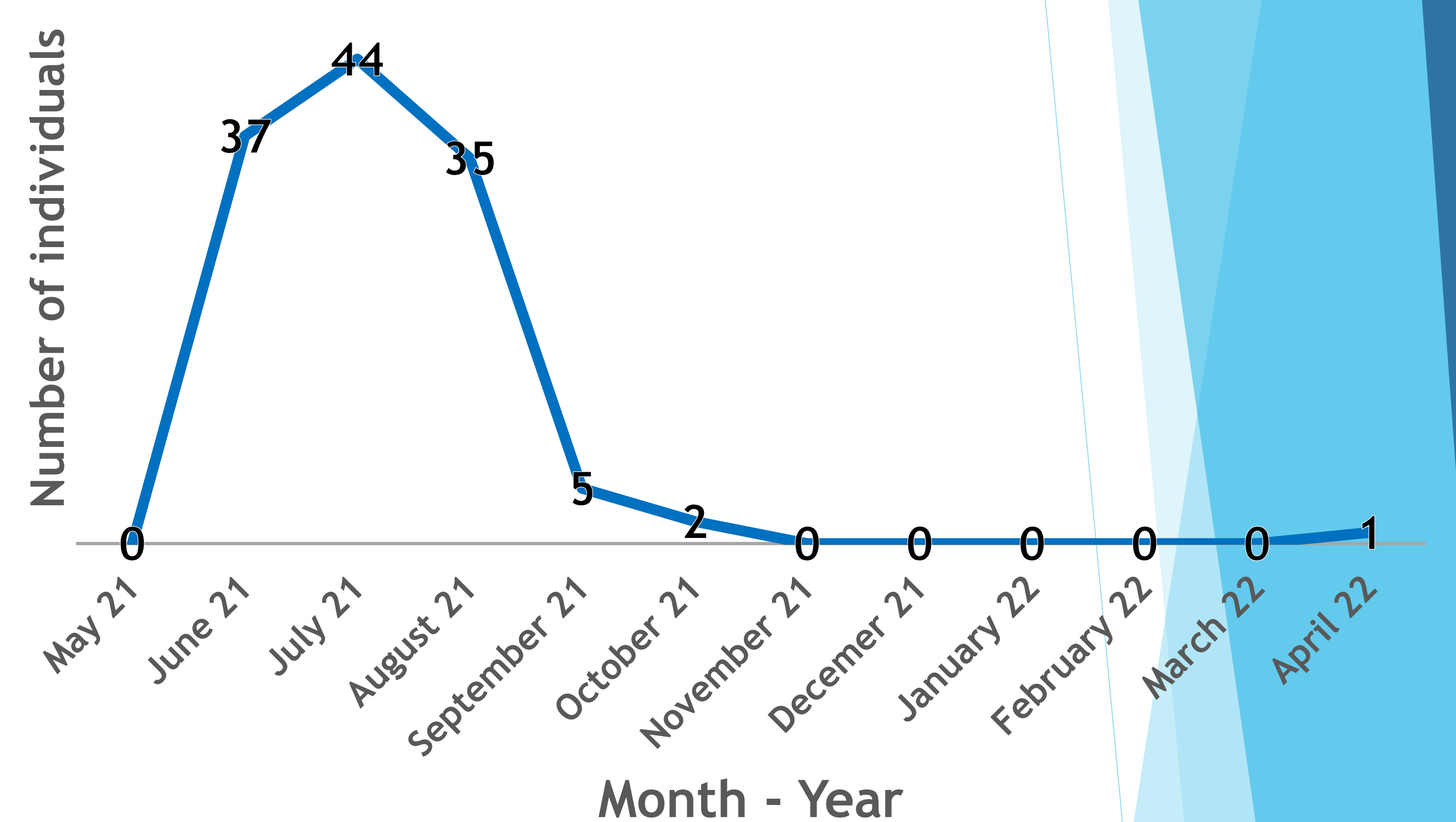


Figure 3. Yearly fluctuation of individual collected in all sampling sites.

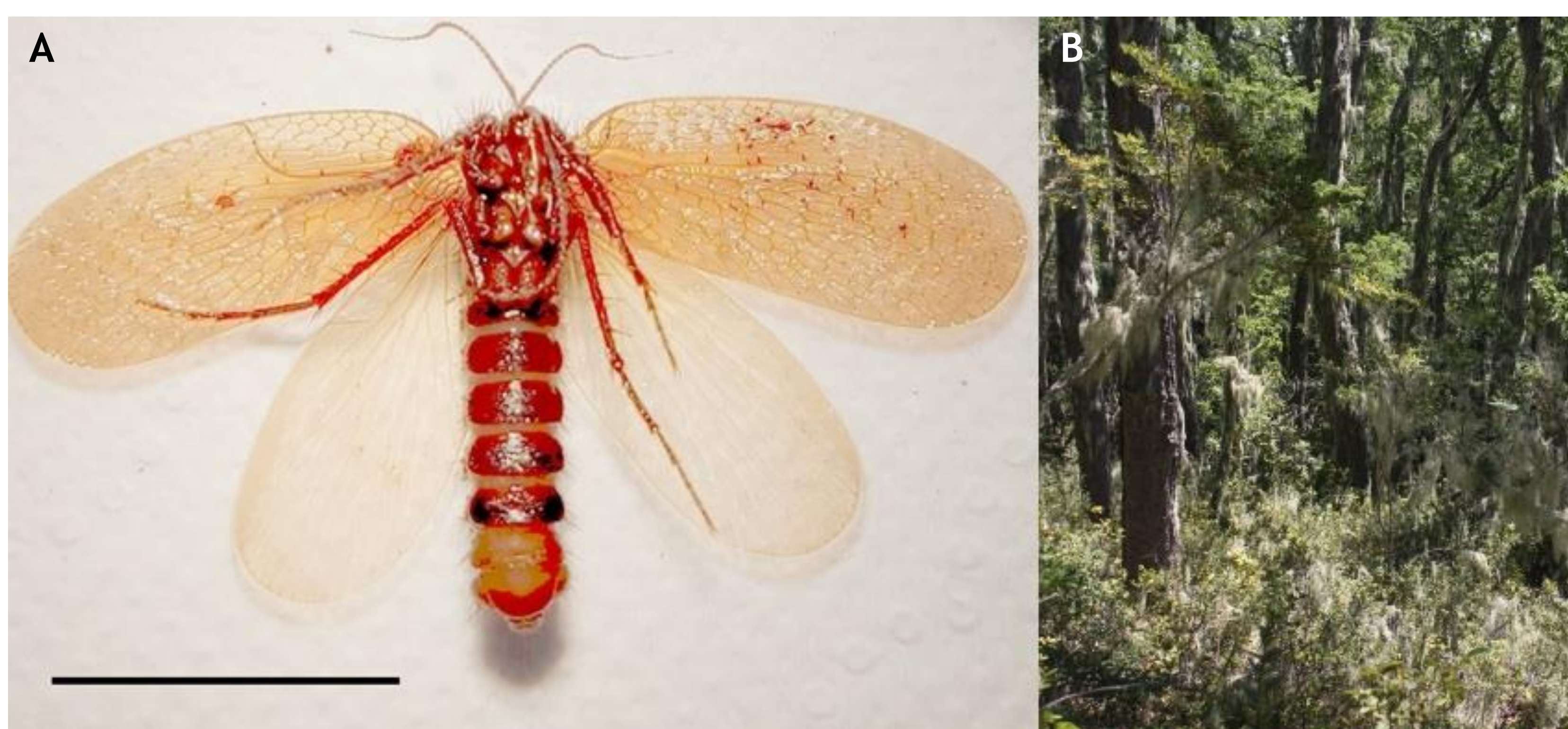
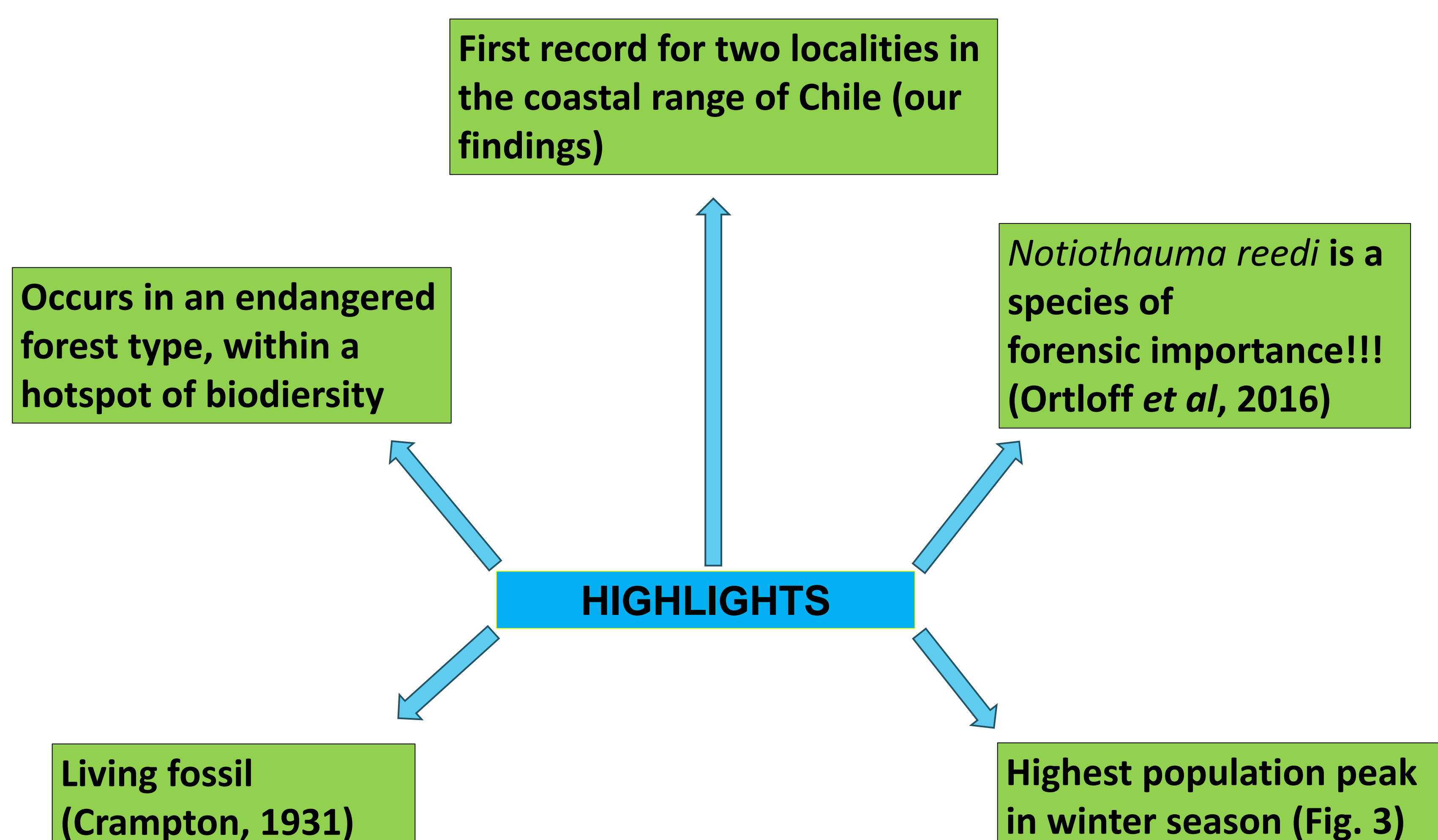
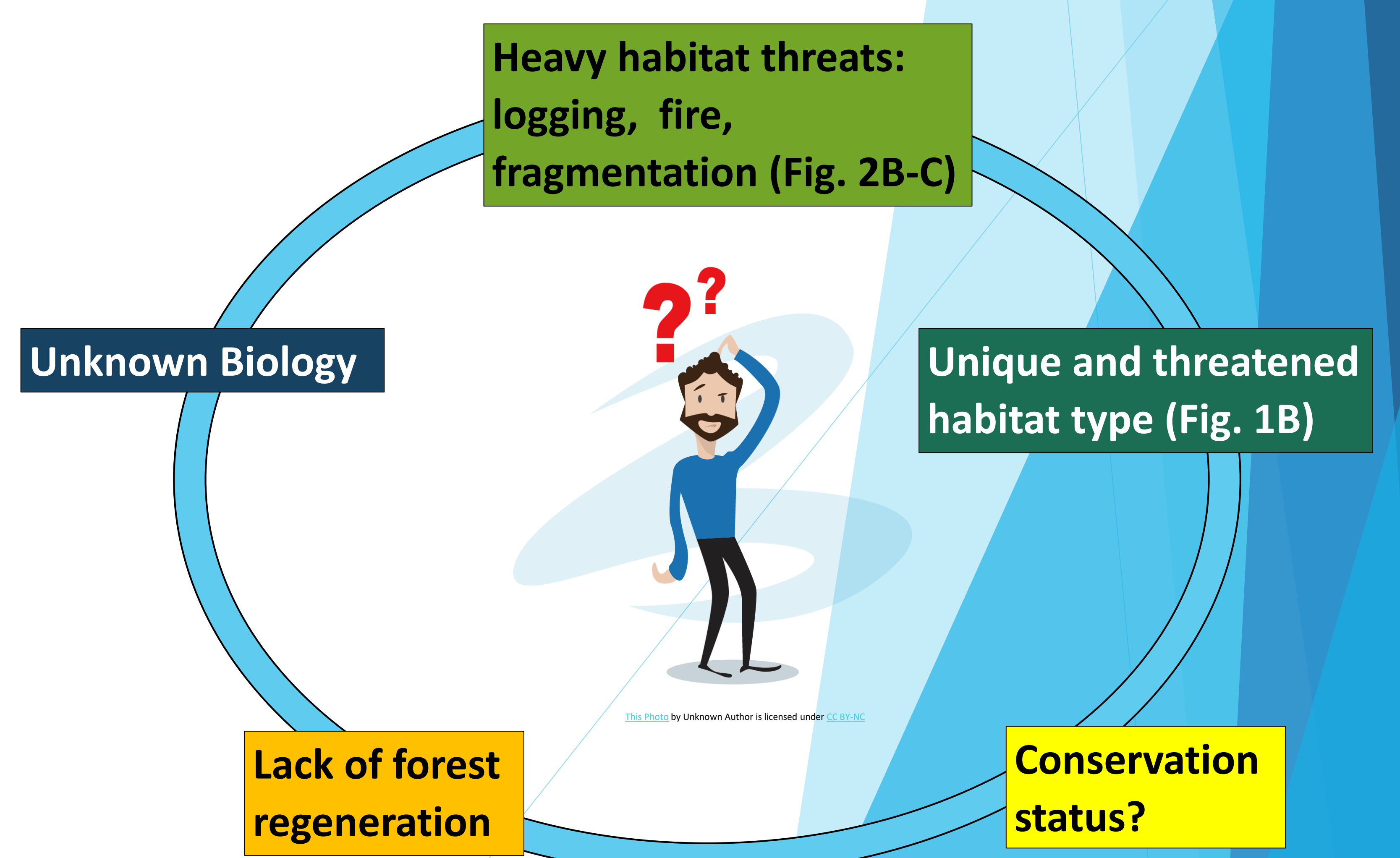


Figure 1. A) *Notiothauma reedi* specimen (scale bar = 1cm) *N. reedi* habitat, B) Coastal forest.



## QUESTIONS / CONCERNS



## REFERENCES

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- Crampton, G. C. (1931). The genitalia and terminal structures of the male of the archaic mecopteran, *Notiothauma reedi*, compared with related Holometabola from the standpoint of phylogeny. *Psyche: A Journal of Entomology*, 38(1), 1-21.

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