

# Understanding the biodiversity and evolutionary history of the amphipod genus *Eusirus* in the Southern Ocean

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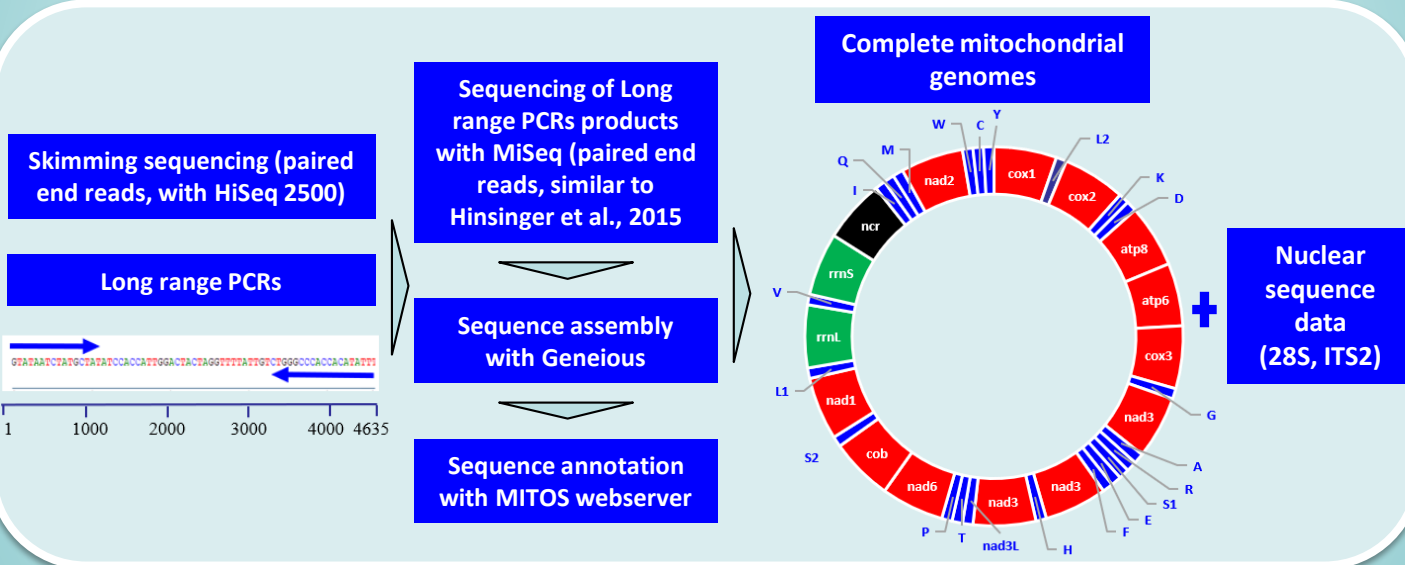
## Introduction

- The diversity of the Antarctic marine fauna has been shaped by various evolutionary processes greatly influenced by the geological and climatic history
- Continuous discovery of such (pseudo-) cryptic species in genus *Eusirus* suggests that its biodiversity is currently greatly underestimated
- Preliminary phylogeny (COI and 28S) -> some Antarctic nominal *Eusirus* species are composed of genetically distant clades, suggesting putative new species.

## Aims

- To provide a better estimate of the actual diversity within the genus, using various DNA-based species delimitation methods (GMYC, PTP, 4 theta rule and ABDG)
- To provide a better understanding of the evolutionary history of *Eusirus* species by reconstructing a robust phylogeny (whole mitochondrial genomes + nuclear sequence data (28S, ITS2))

## Methods



## Preliminary results

### *E. giganteus*



### *E. perdentatus*

