BIG4 Mid-term review

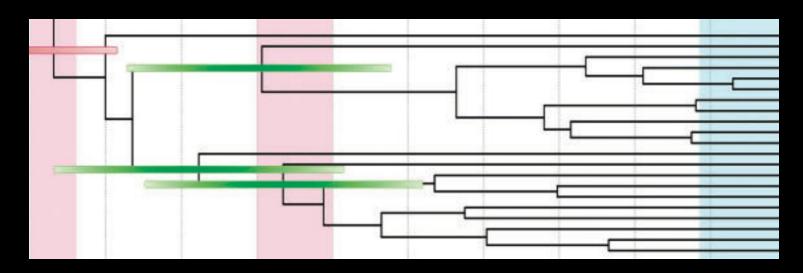
STATENS NATURHISTORISKE MUSEUM

KØBENHAVNS UNIVERSITET Josh Jenkins Shaw Natural History Museum of Denmark and the University of Copenhagen

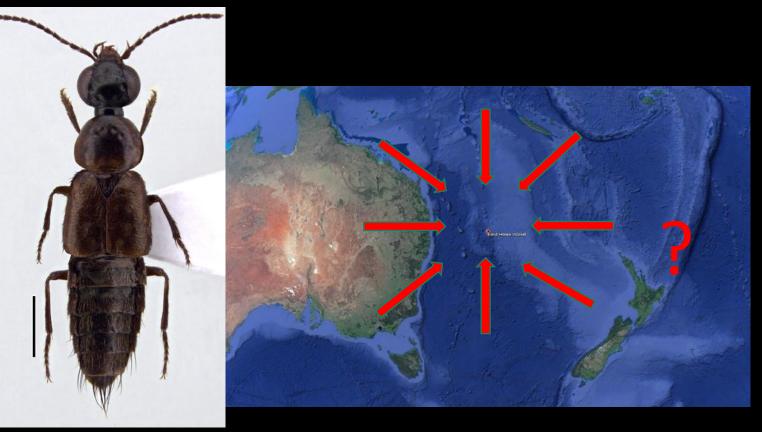


Main aims

• Biogeographic history of Lord Howe Island

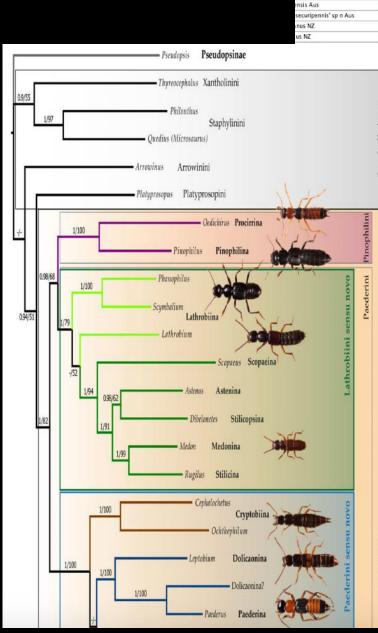


- Resolved phylogeny of rove beetle subtribe Amblyopinina
- Develop Amblyopinina as future biogeographic model group



Methods

- Morphology
- Molecular (DNA) data
- Phylogenetics MP \rightarrow BI
- Biogeographic analysis



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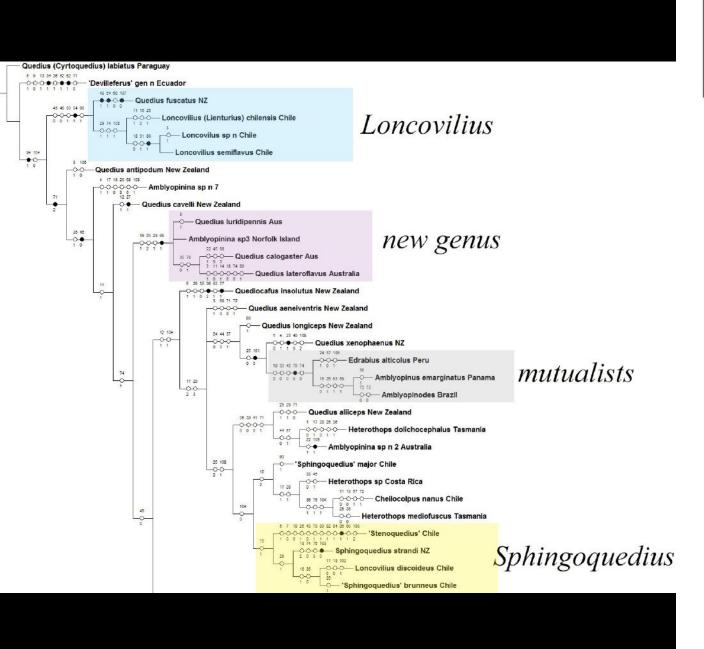
Results obtained

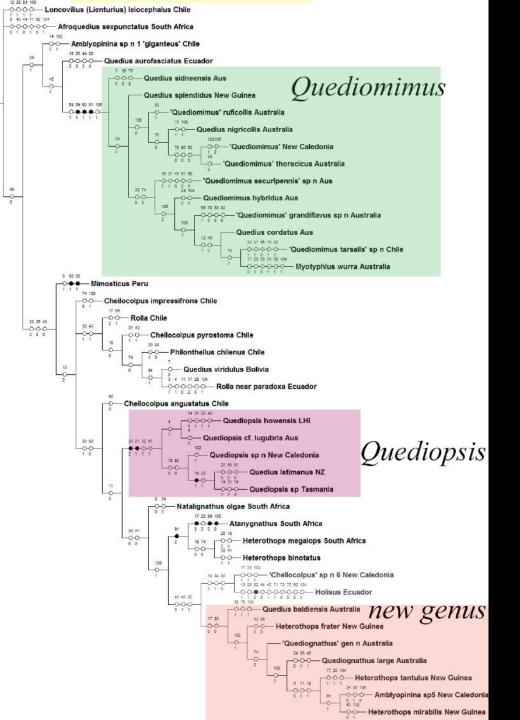
• Taxonomy of *Myotyphlus* – puzzling genus within Amblyopinina (published)

The remarkable Australian rove beetle genus *Myotyphlus*: its cryptic diversity and significance for exploring mutualism among insects and mammals (Coleoptera: Staphylinidae)

Alexey Solodovnikov* and Josh Jenkins Shaw

- Morphological matrix (done)
- Phylogenetic analysis (in progress)
- Taxonomy of LHI rove beetles (ready to submit)
- Small amount of molecular data obtained





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'The insect fauna of Lord Howe, viewed in relation to generic distribution, displays a marked affinity to the fauna of the Australian subregion' Olliff, 1889

New genus of Amblyopinina

- Largest body size in Amblyopinina
- 2 specimens known
- Ecuador





Next plans

- Go to UNSW, Sydney
- Lord Howe Island
- Obtain molecular data
- Fieldwork
- Museum collection visits
- Complete generic revision
- Continue satellite projects
- Molecular phylogeny







Ancient DNA?

Impact of action on future career

- Skills for:
- Academia
- Writing papers
- Disseminating research
- Teaching
- Field work
- Laboratory work
- Museum collection-based work



Thanks!

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THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

