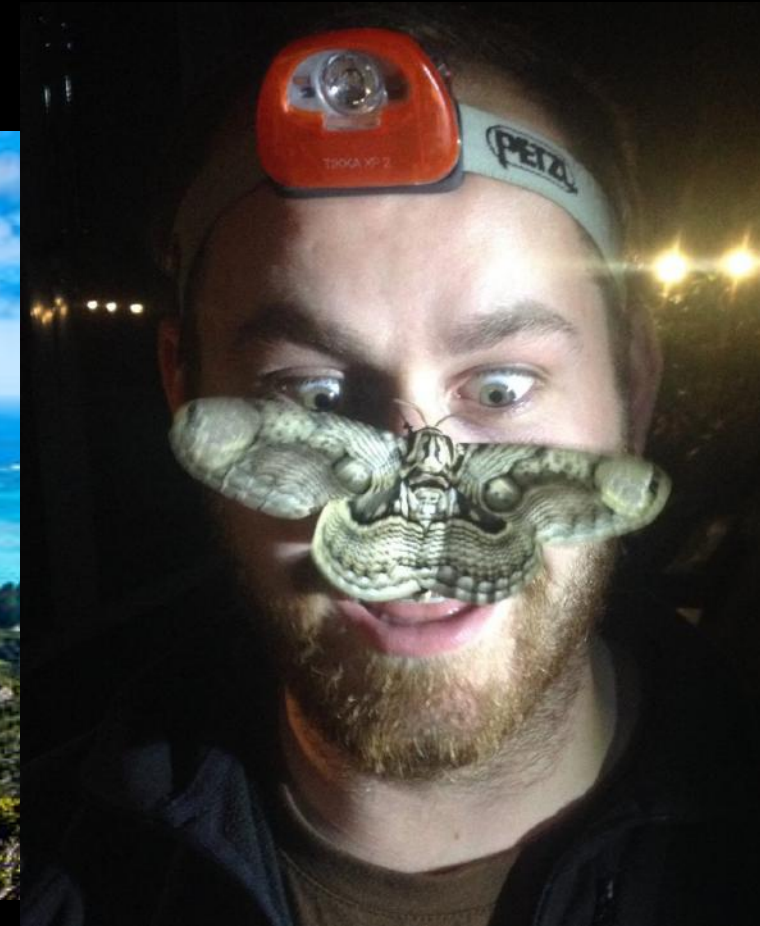


BIG4 Mid-term review



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

STATENS
NATURHISTORISKE
MUSEUM

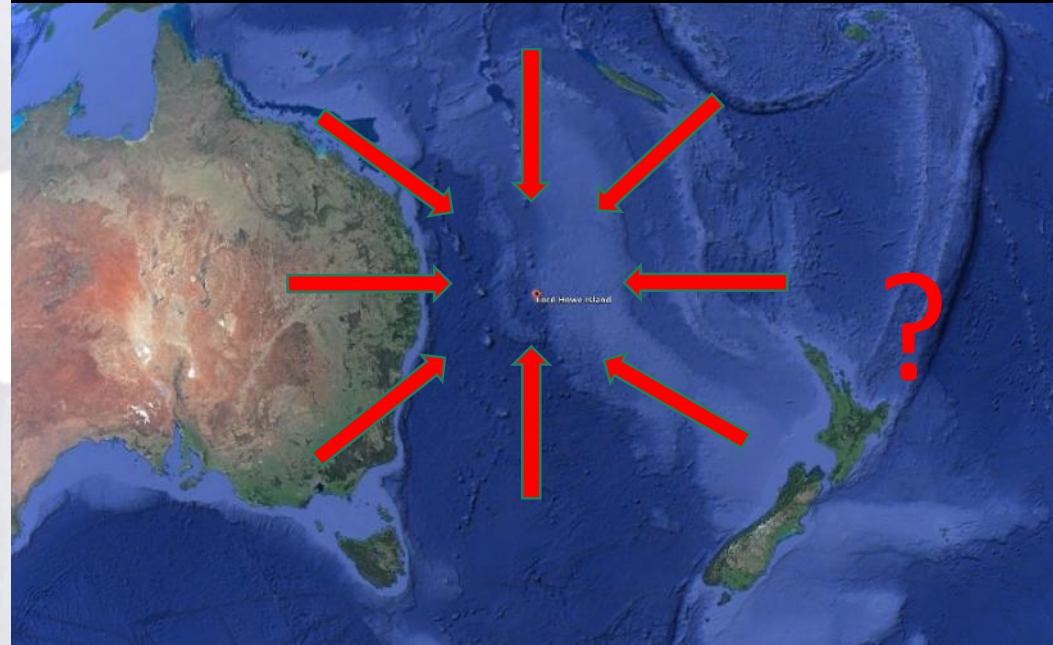
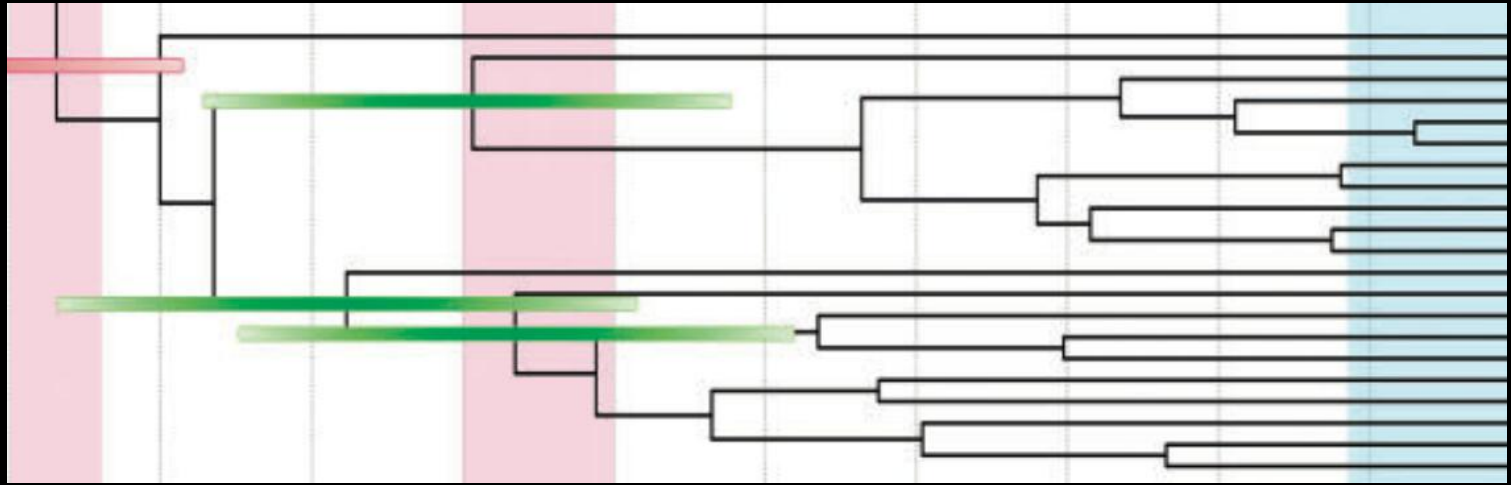
KØBENHAVNS
UNIVERSITET



BIG4 
Biosystematics, Informatics, Genomics

Main aims

- Biogeographic history of Lord Howe Island
- Resolved phylogeny of rove beetle subtribe Amblyopinina
- Develop Amblyopinina as future biogeographic model group



- Morphology
- Molecular (DNA) data
- Phylogenetics – MP→BI
- Biogeographic analysis

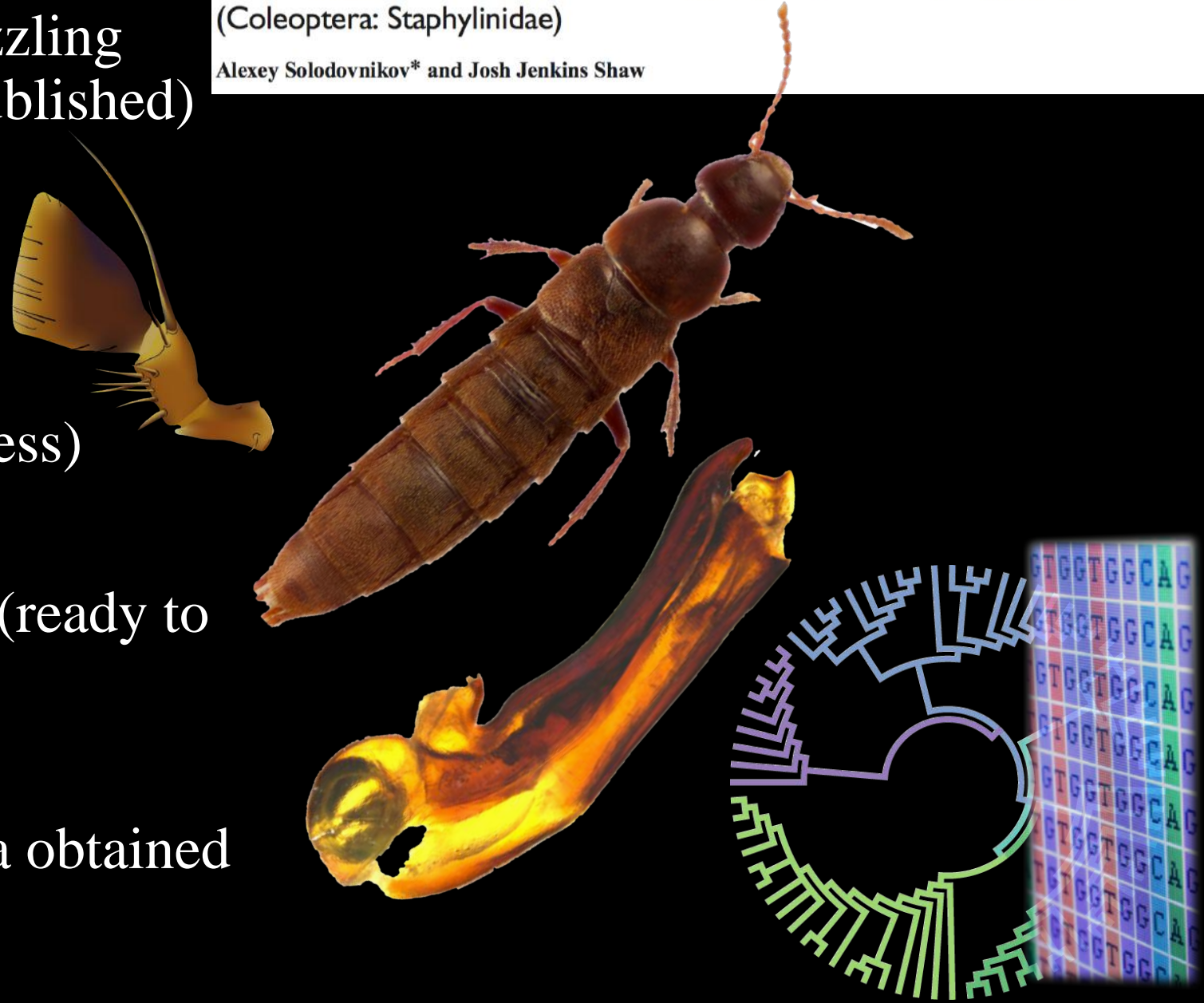
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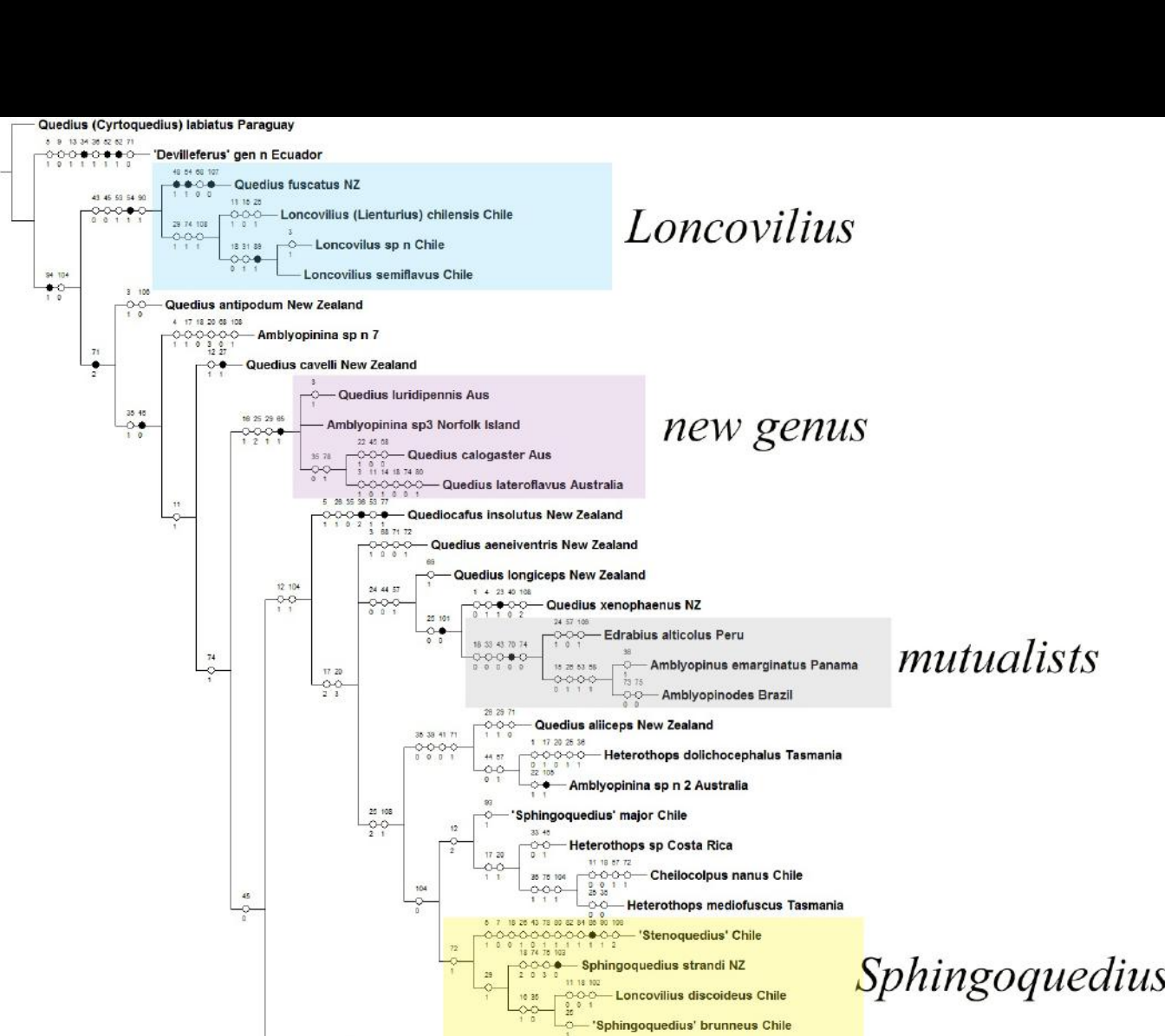
Results obtained

- Taxonomy of *Myotyphlus* – puzzling genus within Amblyopinina (published)
- Morphological matrix (done)
- Phylogenetic analysis (in progress)
- Taxonomy of LHI rove beetles (ready to submit)
- Small amount of molecular data obtained

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



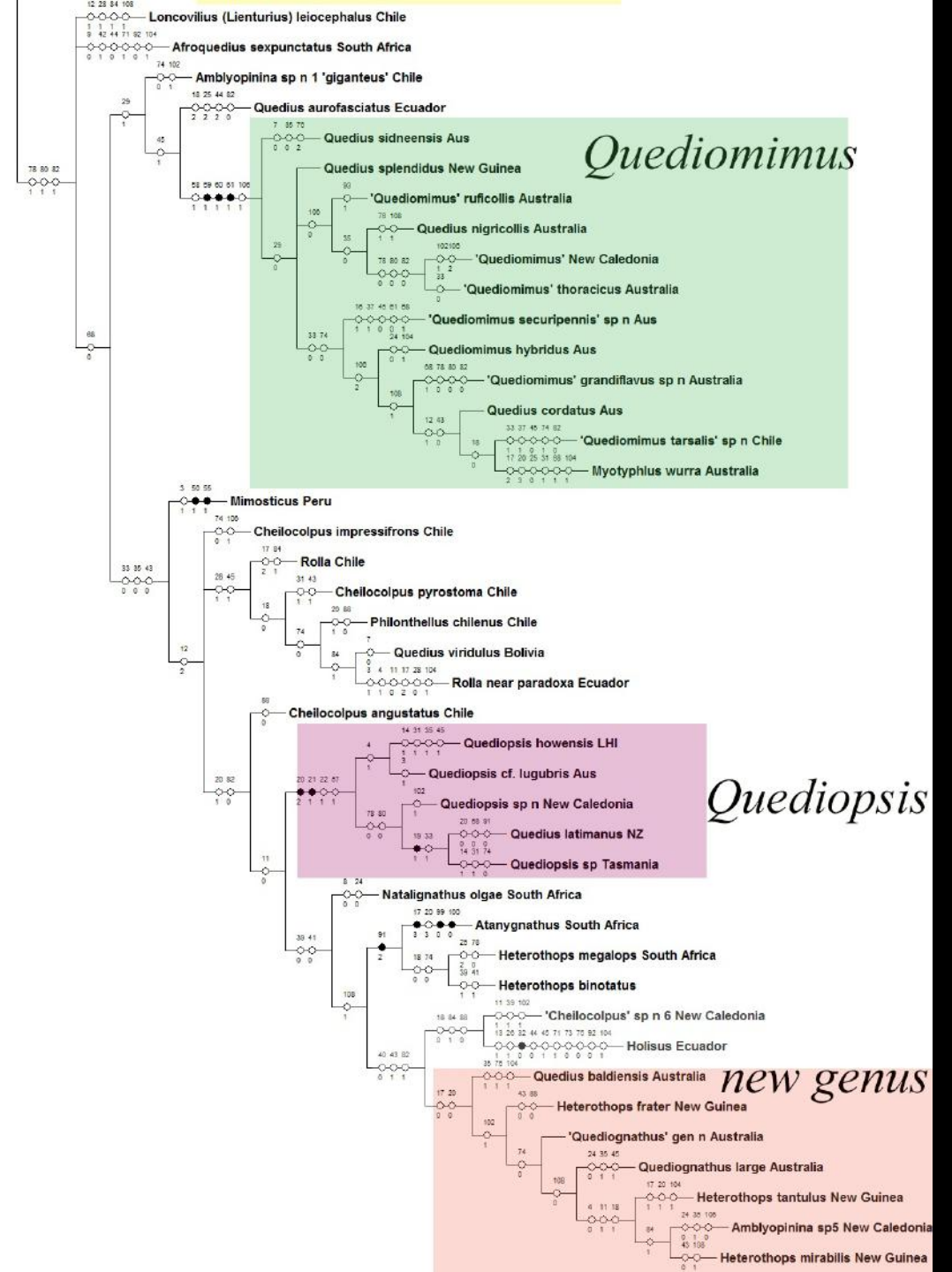


Loncovilius

new genus

mutualists

Sphingoquedius



Quediomimus

Quediopsis

new genus

‘The insect fauna of Lord Howe,
viewed in relation to generic
distribution, displays a marked affinity
to the fauna of the Australian sub-
region’ 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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