Thursday 29 – Friday 30 July 2021

Workshop overview
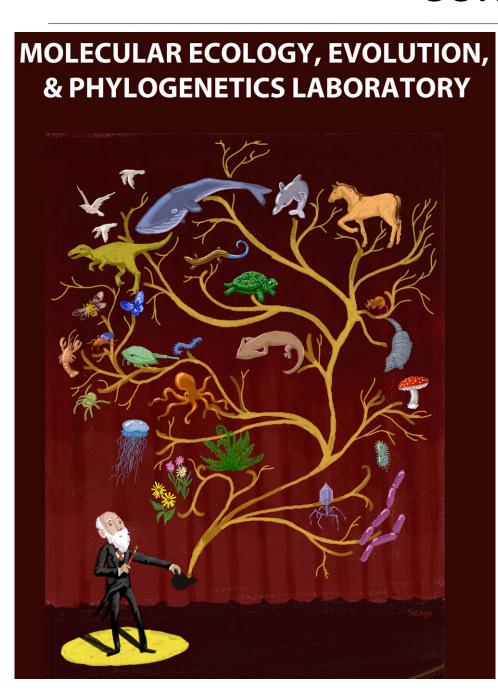
- Interpreting phylogenetic trees

- Phylogenetic methods

- Bayesian phylogenetic analysis

- Molecular dating

- Phylogenomics

Contributors

MOLECULAR ECOLOGY, EVOLUTION, & PHYLOGENETICS LABORATORY

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Programme – Day 1

11.00 – 11.10   Welcome

11.10 – 11.50   **Lecture 1.1**: Introduction to molecular phylogenetics

12.00 – 12.45   **Lecture 1.2**: Evolutionary models

13.00 – 13.45   **Lecture 1.3**: Phylogenetic data

14.00 – 14.45   **Lecture 1.4**: Phylogenetic methods

15.00 – 15.45   **Seminar**: Phylogenetic analysis with IQ-TREE

15.45 – 16.00   Additional time for questions

Programme – Day 2

11.00 – 12.00   **Lecture 2.1**: Bayesian phylogenetic analysis

12.15 – 12.45   **Lecture 2.2**: Models and priors

13.00 – 13.45   **Lecture 2.3**: Molecular dating

14.00 – 14.30   **Lecture 2.4**: Calibrating the molecular clock

14.45 – 15.15   **Lecture 2.5**: Phylogenomics

15.15 – 16.00   Additional time for questions

Lecture materials

- Lecture slides available on Github
  github.com/simon-ho/SydneyPhyloWorkshop

- Recordings of talks will be available on Dropbox after the workshop

Practical exercises

Work through practical exercises in your own time

- Install software on your own computer

- Data files available on Github

- Brief video introduction provided (Dropbox)

- Answers to practical exercises provided (Dropbox)

Practical 1.1   Sequence alignment and phylogenetic analysis using *MEGA*

Practical 1.2   *IQ-TREE* workshop tutorial

Practical 2.1   Bayesian analysis and molecular dating using *BEAST*

Practical 2.2   Phylogenomic analysis using *ASTRAL*

Zoom webinar format

- Submit questions during webinar

  - Q&A function (questions not visible to attendees)

  - Chat function

- Answer to questions:

  - Typed responses during or after talks

  - Verbal responses after talks