PhD placement/PIPS: Accelerating the taxonomy of the Myrtaceae collections

Placement supervisor:
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Placement department:
Accelerated Taxonomy – Integrated Monography

Placement overview and objectives:
A placement here would be working with the large, taxonomically intransigent genera of fleshy fruited Myrtaceae (clove, guava and ecalypt family). This work aims to increase identification of collections in the Herbarium and provide trait information for future identification of species. This is to accelerate taxonomy using online software and machine learning. There are 2 possible projects that could be hosted here.

Tasks to be undertaken/possible projects:
Project idea 1: Kew's herbarium collections of the genus Myrcia, which has 700 species and 5000 specimens in the herbarium, have not been properly curated since the 1850's. This project would involve identifying the collections as far as possible using online resources and curating the collection.

Project idea 2: Identification can be done via online resources using trait information. This project would involve setting up the data resource and populating information to capture morphological trait data. This resource could be made available to accelerate taxonomy via online workbenches and help automatic identification of specimens using machine learning.

Required skills and experience:
Project 1:

- An interest in botany and plant taxonomy
- An interest in museum and natural history collections.
- Meticulous individual.
- Experience with standard word processing and spreadsheets.

Project 2:

- Interest in natural history collections.
- Interest in acceleration of taxonomy
- Experience in software development or coding.

Skills and areas of knowledge that can be developed:

Project 1:

- General identification and taxonomy of plant species
- Curation of collections including care and organisation of specimens

Project 2:

- Development of coding and software design skills that can be applied elsewhere.
- Using machine learning.
- An understanding of plant traits and morphology.

Location of work:

Kew, Richmond. Can be hybrid onsite/WFH after discussion.

Length of placement:

Usually, 3 months but timeframe can be discussed.