

Koiora — BioAssist™ Laboratory

Leading invertebrate biodiversity assessment and digital taxonomy into the future.

Koiora — BioAssist™ integrates our biosystematics and ecological expertise with start-of-the-art digital technologies to provide cost effective, accurate research and consultancy services supporting

- biodiversity surveys
- conservation and land restoration
- environmental monitoring and reporting
- biosecurity identifications and rapid diagnostics
- museum collections and bar-code cataloguing
- digital images for publication and distance diagnostics
- digital images for taxonomic and diagnostic training.



Networked processing of samples & identifications

The laboratory's sample processing area has several workstations that are provided with a stereo-microscope, cold light source, and a barcode scanner. These workstations are networked to a database server running Biota4D.

Several people can sort samples and enter data at the same time enabling identifications to be cross-referenced simultaneously against rigorously defined recognisable taxonomic units (RTUs). The RTUs are checked by Landcare Research systematists who use high-quality images or reference specimens to verify the identifications. Reference material is vouchered in the New Zealand Arthropod Collection (NZAC) for future reference.

Digital imaging

The digital imaging system consists of research-grade stereo and compound microscopes, high resolution video and still cameras, a graphics quality pc, Auto-Montage and Leica IM software for increased depth of field and multi-shot stitching, an optional 'z-stepper' to automate imaging, and a colour printer. The system produces perfectly focused 3D images.

