

# Quality Data

EcoGene provides DNA services and support to New Zealand and international central and local government agencies, universities, zoos and private enterprises.

We can provide statements of evidence about species identity for legal cases. This work is supported by Landcare Research's extensive Nationally Significant Collections and Databases.

Our laboratories are PC2 accredited and equipped with a range of the latest technology for high-throughput analyses. This includes:

- A dedicated 3500xL ABI Genetic Analyser for sequencing
- Genome sizing by Flow Cytometry
- A Roche GS Junior 454 next generation sequencer
- Several DNA extraction and liquid handling robots (QIAextractor, QIAcube, QIAgility)
- Real Time/Quantitative PCR (QIAGEN Rotor-Gene Q)
- Ultra-freezer and liquid nitrogen cryopreservation facilities



## Collecting and Sending Samples

EcoGene can provide protocols for collecting, storing and transporting material from the field to the laboratory, from anywhere in the world

### For further information:

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# EcoGene®



# Advanced DNA Services

EcoGene is Australasia's leading provider of DNA-based diagnostic services for biosecurity and biodiversity.

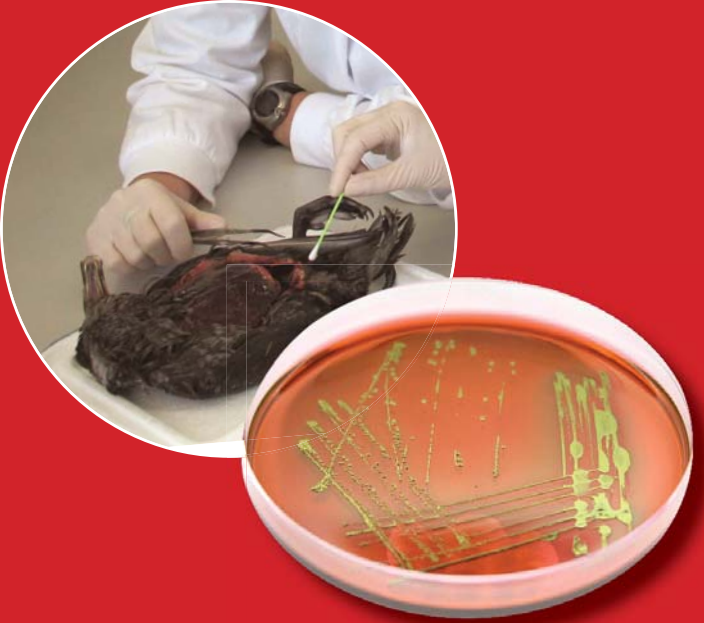
From our laboratories in Auckland and Lincoln, New Zealand, we provide a cost effective and fast turnaround service for applications such as:

- Species identification from a range of sample types (tissue, fragments, hairs, scats, saliva)
- Wildlife monitoring; detecting individual movements, species distributions, diet analysis from environmental samples
- Genotyping, including rapid marker development
- Disease screening, including Chytrid fungus testing
- Parentage analysis
- Gender analysis in mammals, birds, and some reptiles & amphibians
- Rodenticide resistance screening
- Fungal, bacterial, plant, fish, mollusc and NZ terrestrial invertebrate diagnostics



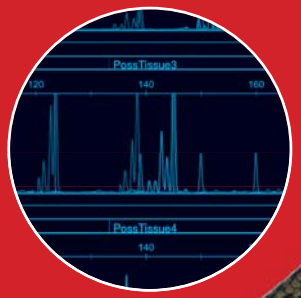
Species Identification

- Predator detection from forensic samples like saliva swabs of wound sites, hair snags and scat samples
- Identification of invertebrate species from samples such as eggs, larvae and fragments using DNA barcoding methods
- Fungal and bacterial species identification from pure cultures
- Forensic analysis of border seizures such as Traditional Medicines for breaches of CITES regulations
- Advanced DNA-based technologies to identify plants, fish and molluscs
- Identification of animal species from food items



# Vertebrate Pest Monitoring

- Track movements of individual animals to detect immigrants versus residents
- Rodenticide resistance screening
- Mark-recapture analysis using non-invasive sampling for density estimation and monitoring of vertebrate pests
- Comprehensive design and analysis of pest eradication/monitoring projects



# Genotyping

- Determine population genetic structuring and estimate gene flow using existing microsatellites or development of species-specific markers
- Identification of pest individuals (eg: mustelids, cats and dogs) that predate native birds
- Gender assignment and parentage analysis

# Disease Screening

- EcoGene is able to test for:
- Avian malaria
  - Chytrid fungus
  - Murine typhus
  - Whataroa virus

Metagenomic pathogen discovery is also available as a disease screening service and testing for specific diseases can be developed on request

