

Media Release

www.adelaide.edu.au/news

Wednesday 21 May 2014

\$2.5m project to speed up species identification

Leading Australian scientists have launched a \$2.5 million project to rapidly and accurately identify key animal and plant species using genetic markers or “DNA barcoding”.

The project will speed up the discovery and identification of unknown species, advancing conservation and environmental management with economic benefit for the mining, fisheries and forestry industries.

The project is led by the University of Adelaide’s Professor Andrew Lowe in a partnership with scientists from Kings Park Botanic Garden, CSIRO, Australian Tropical Herbarium, the South Australian Museum, ARC Centre of Excellence in Plant Energy Biology and WA Department of Parks and Wildlife. Research infrastructure organisation Bioplatforms Australia is managing the project and will provide access to DNA sequencing infrastructure and genomics and bioinformatics expertise.

Professor Lowe says that DNA barcoding offers an opportunity to revolutionise the way species are identified. “Of the estimated 10 million species that exist on our planet, only just over a million have so far been identified and described,” says Professor Lowe, speaking in the lead up to International Day of Biodiversity on 22 May.

“Using traditional taxonomy, it would take at least another 2000 years to identify Earth’s remaining species. With DNA barcoding, we can vastly accelerate this rate and generate significant scientific and economic benefits.”

The national collaborative project will focus on five key areas with immediate strategic value:

- verifying timber origins to combat illegal timber trading;
- authenticating labelling and geographical origin of fish in the retail marketplace;
- mapping plant biodiversity in the Pilbara to help with mine site environmental impact assessment and restoration management;
- biodiversity discovery and impact assessment of invertebrates that inhabit underground aquifers utilised by mining and farming; and
- generating barcodes for Australia’s orchids to enhance conservation.

“DNA barcoding has significant potential to enhance our understanding of Australian biodiversity and become an essential tool in the environmental assessment process and conservation planning,” says Professor Lowe.

“By using a genetic rather than morphological marker system, barcoding can help combat illegal trade in endangered and valuable species through more accurate identification and tracking.”

Bioplatforms Australia General Manager Andrew Gilbert says all five datasets will build new capabilities and deliver valuable data resources.

“Enhanced techniques for rapid species identification can enable fast, inexpensive and accurate environmental assessments and provide a new platform for biodiversity research and conservation planning – all of which offer broad and significant economic benefit,” he says.

(continued....)

The project also has support from Fortescue Metals Group, the Australian Government and BHP Billiton Sustainable Communities through the Bush Blitz program, FORDA (the Indonesian Forest Research and Development Agency) and DoubleHelix Tracking Technologies.

Media Contacts:

Professor Andrew Lowe

Director,

Australian Centre for Evolutionary Biology and Biodiversity

Environment Institute

The University of Adelaide

Mobile: +61 434 607 705

andrew.lowe@adelaide.edu.au

Mr Andrew Gilbert

General Manager

Bioplatforms Australia

Mobile: +61 410 538 648

agilbert@bioplatforms.com

Robyn Mills

Media Officer

The University of Adelaide

Phone: +61 8 8313 6341

Mobile: +61 410 689 084

robyn.mills@adelaide.edu.au

CRICOS Provider Number 00123M