



Hello TESSians,

There is something rather special about opening a new newsletter with a photograph that tells a story of its own. This month's masthead features *Dendrobium wanmae*, a recently described and critically endangered orchid from the Southwest Papua region, photographed by our outstanding Master of Philosophy student, Reza Saputra. We are delighted to showcase Reza's work and, through it, one small example of the remarkable biodiversity that inspires so much of the research within our community.

And, in keeping with October's wonderfully eclectic character, we will also be celebrating World Wombat Day on 22 October! From rare orchids to much-loved marsupials, we hope you enjoy this month's collection of research, people, discoveries and opportunities from across TESS.

All the best,

Susan Laurance, Director and Anabel Belson, Coordinator

CENTRE NEWS

Voices of the Tropical Forest: could your station help us spread a short survey?

Thanks to Phoebe Kinley from WTMA for passing on this survey. CNRS researchers, with colleagues from ETH Zurich, we have just launched "Voices of the Tropical Forest", an online survey on how people perceive tropical forest soundscapes. The recordings come from more than 600 sites in Costa Rica that are part of a forest restoration program. You listen to short sound clips and click on the ones you prefer. Give it a try, it takes about 5 minutes. They would be very grateful if you could share the survey through newsletters, social media or mailing lists, or with your partners in the field. [Nicolas Mouquet](#), the CNRS research director for the project would also be very happy to hear any ideas of other networks he could use to reach local communities.

Everybody is welcome to take part:

Survey in English: https://www.biodiful.org/#/soundscapes_en

Encuesta en español: https://www.biodiful.org/#/soundscapes_es

Enquête en français : https://www.biodiful.org/#/soundscapes_fr

Revisiting the Archives

The TESS Seminar archives are an amazing resource of valuable research. This month we are highlighting:

[Restored Wildlife Corridors in the Tropical Uplands – an exploration of community reassembly processes](#) -

Nigel Tucker, Amanda Freeman, David Tng

Interesting to compare the progress of the 3 Corridors Project from five years ago with the results from Nigel and Nara's new paper, as referenced below.

Celebrating 95 Years of North Queensland Natural History Group

The North Queensland Naturalists Club/NQNHG is in its 95th year. Last year (2025/26) included one major field trip to Elizabeth Creek Gorge via Chillagoe and ongoing monitoring of Gouldian Finches, mostly in the Mitchell River Catchment but also some adjacent catchments, and Magnificent Broodfrogs on the Atherton Tablelands. The North Queensland Naturalist online journal continues to flourish (this publication also spans 95 years) already eight papers published this year <https://www.nqnat.org/volume/56/2026> . While they haven't confirmed a guest speaker for this year's AGM it is scheduled for 30th October at the Yungaburra CWA.

Lab Audit

TESS would like to add a note of thanks to Jenni Paul and Cam Mashford for all their help with the recent Rainforest Ecology Research Lab and Tropical Plant Ecology Research Lab audits. The work of our lab techs is vital to the functioning of all the labs and the majority of the [accredited](#) courses here. Please know that you are greatly appreciated.

PAPER ALERTS

This month's selection of TESS publications, commencing with:

[Vision Transformers versus convolutional neural networks for fine-grained orchid genus identification in a species-rich, data-poor flora: a controlled benchmark on the Orchidaceae of New Guinea](#) - Reza Saputra, Diah Harnoni Apriyanti, André Schuiteman, Kurt Metzger, Ashley Field, Katharina Nargar, William Edwards

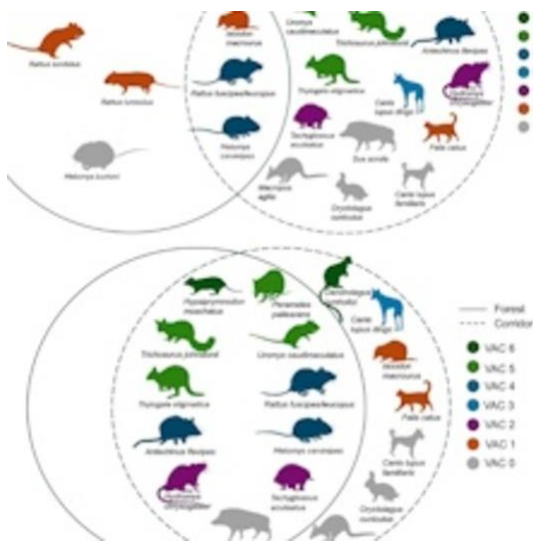


Image credits: Orchids of the Bird's Head Peninsula, Road construction Arfaz © Reza Saputra

The study compares four deep-learning models for identifying New Guinea orchids from photographs. The best one, a self-supervised Vision Transformer (DINOv2), correctly identifies the genus in about 89% of test photos, suggests likely species by matching against reference images, and flags orchids from genera it has never seen for expert review. *The work is currently a preprint and was being submitted to a peer-reviewed journal last week.*

The model now runs inside the Vogelkop Orchid Key, a free identification platform for the orchids of New Guinea's Bird's Head Peninsula, one of the most botanically rich yet least explored regions on Earth. It brings together three tools. A website (birdsheadorchid.id) documents more than 650 taxa with over 6,100 photographs and media items and 3,300 georeferenced specimen records. A multi-access identification key lets users name an orchid from whichever features they can see, across 652 taxa and 51 characters. An AI photo identifier, trained on field photographs of 120 orchid genera, suggests the genus from a single snapshot and lines up the most similar species for comparison.

In 2026 the platform became a free mobile app for iPhone and Android, in English and Indonesian. Crucially, it works fully offline, because most orchid habitat in West Papua lies far beyond phone signal. Rangers, students and local communities can now identify orchids, keep a GPS field journal and check conservation status while standing in the forest. Links: [Website](#), [iPhone app](#), [Android app](#).



Ground mammal colonization of restored wildlife corridors in the tropical uplands of north-eastern Australia - Nigel Tucker, Nara Vogado

Restoring habitat corridors can reduce the impacts of habitat fragmentation by improving connectivity between isolated forest areas. Through camera-trap monitoring of three restored corridors in the tropical uplands of north-eastern Australia, researchers found that native ground mammals were using these areas as habitat and potential dispersal routes, demonstrating the long-term benefits of ecological restoration for wildlife conservation.

Image credit: Nigel Tucker, Nara Vogado

Bidirectional migration routes of *Chelonia mydas* from the northern Great Barrier Reef - Emily Perkovic, Stephanie Duce, Colin Limpus, Takahiro Shimada, Emily Webster, Mark Hamann

Understanding the full migration dynamics of highly migratory marine species is essential for effective conservation and management. In sea turtles, research has largely focused on one-way, post-nesting migrations, leaving key gaps in knowledge regarding return movements and overall route fidelity. This study investigated the route fidelity of Northern Great Barrier Reef (nGBR) green turtles (*Chelonia mydas*) by comparing outward migrations from foraging grounds to nesting sites with return migrations to foraging areas.

Image credit: Ugo Montaldo





Scholarship Award

Congratulations to [Jamie Ahearn](#) and Han She Lim! The announcement came through in mid-September that Jamie has been awarded one of the [2026 ACEDD Honours Scholarships](#). Jamie is investigating how a tropical wetland near Tully is sustained and how it helps safeguard downstream waterways and the Great Barrier Reef. This project is undertaken in collaboration with the Queensland Department of Environment, Tourism, Science and Innovation, with support from the Australian Government.

A Proper Introduction to Pavithra Sundar

Pavithra is from India and has begun her doctoral studies at JCU in Townsville under the supervision of Martijn van de Pol, Lin Schwarzkopf, and Slade Allen-Ankins. She will be studying the montane birds of the Australian Wet Tropics. The main goal of her project is to use passive acoustic monitoring to study the impacts of climate change on the tropical rainforest bird communities in this World Heritage Area. This research will build on the long-term studies conducted by retired Prof. Steve Williams and his team. It intends to establish a scalable monitoring framework using acoustics, provide deeper insights into the behaviour of seasonal altitudinal migration, and identify habitat refugia to help conserve species as the climate continues to warm.



Confirmation of Candidature Seminar - Umar Kennedy

Title: Acoustic Survey Approaches to Reveal Frog Call Responses to Environmental Change in the Managalas Conservation Area, Papua New Guinea

Abstract: Amphibians are among the most threatened vertebrate groups and are widely recognised as sensitive indicators of environmental change. Frogs produce species-specific vocalisations that provide valuable opportunities to monitor biodiversity and ecosystem condition using acoustic methods. This research investigates how acoustic survey approaches can be used to reveal frog vocal responses to environmental change in the Managalas Conservation Area, Papua New Guinea, a biologically rich but understudied tropical landscape. The study combines passive acoustic monitoring (PAM) and targeted field surveys to address two key objectives. First, it will develop and evaluate a practical guideline for identifying frog calls in large-scale acoustic datasets using visualisation tools, particularly in regions where reference call libraries are limited or absent. Second, the study will examine how elevation and vegetation condition (NDVI) influence frog community composition and acoustic characteristics across multiple survey sites. By integrating ecoacoustic techniques with field validation, this research aims to provide a methodological approach for frog monitoring in data-deficient regions while generating baseline information on frog diversity, vocal behaviour, and environmental responses in the Managalas Conservation Area.

Date and Time: Monday, 12 Oct 2026 10:am AEST

Location: D001-123

Zoom:

<https://jcu.zoom.us/j/82169617445?pwd=YLjDeuTQjaiaq8Cu6mGYaZEDfPirM.1>

Password: 541314

HDR Morning Tea

The next catch up will be 10:00 – 11:00 on Tuesday 13 October, same venue, Building E2 Room 111. Come and swap research stories, have coffee and cake and chat to our host. The last one of the year will be on Tuesday 10 November.

Image credit: Magda Ehlers



UPCOMING EVENTS

New Grass and Sedge workshop dates in Brisbane

November 2-3 -
Brisbane (Grass
Workshop)

The Grass program includes an in-depth dive into the most commonly encountered northern Australian genera of Poaceae - *Aristida*, *Eragrostis*, *Sporobolus*, *Eriachne*, *Panicum*, *Digitaria*, *Paspalidium*, *Bothriochloa*, *Dichanthium*, *Themeda*, *Chloris*, *Enteropogon* and *Enneapogon*.

Grass workshop – 2-3 November 2026 – book via Humanitix here:

<https://events.humanitix.com/introduction-to-grass-id-skills-workshop-66lbt3f>

November 5-6 -
Brisbane (Sedge
Workshop)

The Sedge program will include sessions on using the family key to Cyperaceae, and individually on the genera *Cyperus*, *Fimbristylis*, *Scleria*, *Schoenus*, *Eleocharis* & *Carex*.

It will also focus on how to tell Cyperaceae apart from similar families such as Restionaceae and Juncaceae. Both workshops are lavishly illustrated with microscope images and scans, are full of ID tips, and will be an asset for participants for years to come.

Sedge workshop – 5-6 November 2026 – book via Humanitix here:

<https://events.humanitix.com/sedge-id-skills-workshop>

ATH's Weed ID Workshop

November 26-27 -
JCU's Nguma-Bada
Campus, Smithfield

The Australian Tropical Herbarium, the Centre for Tropical Biosecurity, and James Cook University are offering a new round of our Weed Identification Workshop, to be delivered on November 26-27 at JCU's Nguma-Bada Campus (Smithfield, Cairns).

This is a hands on workshop running for two days from 9 am to 4 pm. The workshop is intended for people willing to go beyond visual identification, and aiming to learn how to recognise plant traits that can be used with botanical keys. [Click here for more information.](#)

The cost of the workshop is \$650, and it includes a hand lens, forceps, a printed manual, and morning tea and lunch for both days. Shared tablets with the necessary applications and tools will also be provided in addition to the manual, but you are welcome to bring your own device if you prefer. Please register your expression of interest in the link below.

[Expression of Interest: Weed ID Workshop – Fill out form](#)

ESA2026

29 November - 4 December -
Brisbane Convention
Centre, Brisbane

ESA2026 will deliver a dynamic and engaging program showcasing the latest ecological research, innovation and practice from across Australia and the broader ecological community.

The conference program will feature a range of presentation formats, including poster presentations, five-minute speed talks and 15-minute oral presentations, providing opportunities for delegates at all career stages to share ideas, research findings and practical insights.

In addition to the scientific program, ESA2026 will offer a diverse range of workshops, field trips, networking opportunities and social events designed to foster collaboration, professional development and meaningful connections across the ecological community.

SCBO Conference 2026

30 November - 4 December –
Auckland, New
Zealand

[The joint Te Aka Toro | New Zealand Ecological Society \(NZES\) and the Society for Conservation Biology Oceania \(SCBO\) 2026 Conference](#) with the theme, “Changing the Conversation – Ecology in a Shifting Political Landscape”.

Australian Tropical Herbarium - Rainforest Plant ID courses 2026

4-6 December -
Daintree Rainforest
Observatory,
Daintree

The Australian Tropical Herbarium is pleased to announce dates for its annual Rainforest Plant Identification courses. Targeted at the interested layperson, the three-day introductory workshop will:

- Describe the characteristics and values of Australia’s tropical rainforests
- Teach you the terminology used to identify Australian tropical rainforest plants
- Introduce you to the free online tools used for rainforest plant identification
- Review the field identification characteristics of important rainforest plant families

This year we will be presenting courses at James Cook University’s Nguma-bada Campus in Smithfield, Cairns, and at the Daintree Rainforest Observatory at Cape Tribulation.

Please contact enquiry@ath.org.au for further info.

Updates will also be provided on the TESS website [Events and Opportunities](#) page.

DID YOU SEE ... ?

Two [new stick insect species](#) uncovered in Far North Queensland.

[Images](#) from the Chinese Mid Autumn Festival.

The impact of [mining](#) in Bowen.

How cool are [bats](#)!

Changes to [legislation](#) on the way.

Bee [theft](#) in FNQ.

ENDNOTE

We hope you enjoyed this issue and learning more about the people and projects shaping tropical environmental research at and around James Cook University. If you are interested in collaborating with researchers from the Centre for Tropical Environmental and Sustainability Science, we would love to hear from you.

Credits: Masthead Image – Dendrobium wanmae and Orchids of the Bird's Head Peninsula, Road construction Arfaz © Reza Saputra; Chelonia mydas © Ugo Montaldo; Cup of coffee © Magda Ehlers Siamang © Muhajir Hasibuan.

Unsubscribe to: tess.volunteers@jcu.edu.au

Centre for Tropical Environmental and Sustainability Science

James Cook University Cairns

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