ECOLOGICAL CONSULTANTS ASSOCIATION OF NSW

ANNUAL CONFERENCE

24th & 25th July 2025

Conference Presenters & Abstracts

Thursday 24th July

Dr Vanessa Owen, Department of Climate Change, Energy, the Environment and Water

Assessment standards for avoid and minimise

Vanessa is Senior Team Leader, Biodiversity Assessment Method Review Team, in the Biodiversity Offsets and Planning Branch of Department of Climate Change, Energy, the Environment and Water. She has over 25 years' experience as an ecological professional in consulting, state and local government. Vanessa is a Biodiversity Assessment Method Accredited Assessor and is leading the team implementing the recommendations of the Biodiversity Assessment Method 5-year review.

Legislative reforms to the Biodiversity Offsets Scheme introduced changes to strengthen requirements to avoid and minimise impacts to biodiversity from development.

The 'avoid, minimise, offset' hierarchy that underpinned the scheme has now been legislated as a purpose of the Biodiversity Conservation Act. The hierarchy requires developers to take all reasonable measures to first avoid, then minimise impacts on biodiversity, before considering offsets.

The Biodiversity Conservation Regulation can now set assessment standards to support a consent authority to determine whether "genuine" avoid and minimise measures have been taken. Targeted consultation on options for these regulatory reforms are underway.

Martin Fallding, Lake Macquarie Council

Local Government perspective: Avoiding biodiversity impacts - what, why, how & when

Martin Fallding is an environmental planner with a career in ecological design and biodiversity planning practice. With a background in both urban planning and science, he has worked for all levels of government and published in the fields of biodiversity planning, biodiversity offsets, climate change and land management.

He has extensive experience in biodiversity planning, impact assessment and policy, especially as a practitioner at the local government level. He has participated in the evolving regulatory framework for threatened species planning, assessment and biodiversity offsetting since 1995.

Martin works part time for local government and is also principal of Land & Environment Planning, a planning and ecological consultancy specialising in strategic biodiversity planning, assessment and land management. He is former member of the NSW Biodiversity Conservation Advisory Panel and the NSW Koala Expert Panel,

and prepared the Biodiversity Planning Guide for NSW Local Government in 2000 and the Planning Framework for Natural Ecosystems – ACT and NSW Southern Tablelands. Has been a member of ECA NSW since its formation.

Martin Fallding will provide a local government perspective on avoiding biodiversity impacts. The presentation considers how biodiversity assessment practice has evolved, and explains the expectations and scope of how avoidance is considered in land use planning and development approval practice. Tips are provided to assist ecological consultants navigate planning and approval processes and to achieve better outcomes and professional happiness.

Alan McKelvey, Partner, Sparke Helmore Lawyers

'Avoid and minimise' in practice – Lessons from the Land & Environment Court

Alan is an Accredited Specialist in Local Government and Planning Law, who regularly advises mining companies, property developers and government agencies on issues associated with environmental planning instruments, planning approvals, environmental licences and voluntary planning agreements.

He has extensive litigation experience, particularly in the New South Wales Land and Environment Court. Alan has conducted a wide variety of merit appeals (including as an advocate), judicial review and civil enforcement proceedings, criminal proceedings (as both prosecutor and defendant), Class 8 matters involving mining projects, objections against compensation following compulsory acquisition, and rating and valuation appeals.

Alan is a recommended lawyer on the Doyles list of 'Leading Town Planning and Development Lawyers', 2025.

Alan McKelvey will provide a legal perspective on how the Land and Environment Court evaluates 'avoid and minimise' measures. Drawing on key cases, the presentation will highlight the importance of robust, evidence-based justification and offer practical tips for consultants preparing material that will help consent authorities be satisfies that sufficient avoidance and minimisation measures have been implemented.

Matthew McNaughton, Local Land Services Agency – South East Region

Vertebrate pest management for the environment and for production - putting knowledge into practice.

Matt McNaughton – South East Local Land Services Located in Berry - Department of Primary Industries and Regional Development:

- *Current Role – Emergency Management Coordinator 18 months – Coordinate planning & Preparedness for Emergency response to natural disasters and Biosecurity Emergencies.*
- *Previously 8 years as a Senior Biosecurity Officer developing and coordinating broad scale vertebrate pest management programs across the Southern Highlands, Southern Tablelands and South Coast. Across the same area I/Matt also coordinated animal health surveillance activities to compliment broader Exotic Animal Disease Detection programs.*
- *Prior to Local Land Services I/Matt worked with Local Government in Environmental Compliance relating to land use and invasive plants.*

An insight to pest management techniques available to landholders for various pest species. Information I provide will help participants understand pest animal impacts, and many of the complexities and considerations that are contributing factors to selection of the most effective/suitable control method for your pest problem. This includes a brief description of associated legislation and references to industry best

practice guides. The presentation will detail various control methods and their effectiveness including insights to where these control methods may be applied (i.e. landscape type/pest population/pest behaviour). This presentation will also highlight the importance of collaboration with other land mangers to achieve greater outcomes from pest control activities including collaboration with Local Land Services, who work regularly work with land managers across NSW to establish effective pest control programs.

James Vandersteen, recipient of the 2023 Ray Williams Mammal Research Grant

The role of dingoes as apex predators in the Australian Alps.

How to manage Australia's top terrestrial predator, the dingo, is a controversial and complex issue. Dingoes beneficially regulate and promote ecosystem biodiversity but are a pest because they kill livestock. Consequently, dingoes are culled throughout Australia. However, there is concern that dingo eradication may trigger detrimental trophic cascades, especially concerning mesopredator release, but findings to date are conflicting.

Our aim was to investigate the direct and indirect ecosystem effects of dingo control in the Australian alpine landscape. We utilised field-methods centred on comparing ecosystem indicators between dingo control and no dingo control sites. This included an extensive camera trap array (90 cameras) to assess the effectiveness of dingo control regimes, and subsequently, how this impacted red fox and feral cat population dynamics.

Contrary to our predictions, we found that dingo density was highest at dingo control sites. As such, we used indices of dingo density as an explanatory variable to explain patterns in mesopredator populations. Here, we found that dingo density had a negative effect on red fox populations, but not that of feral cats. Understanding the flow-on effects of dingo control is crucial to understanding how apex predators' structure ecological communities and how human intervention impacts biodiversity. These findings emphasise how dingo retention within Australian ecosystems may be a powerful and cost-effective conservation tool.

Corey Mead & Nara Williams

Introducing the Created Habitat Success Database

It was determined as an outcome of the ECA nest box workshop run in 2019, that there is a need for a central repository for successful usage of created habitat by different fauna species.

The ECA has formulated a *Created Habitat Success* spreadsheet with the aim to collect valuable information from accumulated experience across the environmental industry.

The spreadsheet will be sent out to ECA members, created fauna habitat manufacturers, fauna habitat specialists, Council's environmental officers and others involved in monitoring created fauna habitat in the coming weeks. The spreadsheet is designed to be simple to fill out and then returned to a specified email address.

The data will be collated and then provided on the ECA website to be used as a reference guide when making assessment and management decisions around providing habitat for fauna. An associated link will also be provided for people to submit new information as it comes to hand, so the spreadsheet will be a live setup.

Corey Mead will briefly explain the spreadsheet layout.

Craig Rothleitner, Founder & Director, ARI Water Solutions

We contaminate rainfall twice in the urban environment, there is now a proven, at every level 'at source' solution to protect our water environments.

Rainfall is contaminated when it lands on the urban environment and then for a second time when it enters the unprotected stormwater infrastructure. The vegetative matter that collects in drains starts to anaerobically break down within 3 days, where it then becomes a source of Phosphorous and Nitrogen that is so significant it has been literally ignored. Then you add the waste that accumulates in the system is the major cause of flash flooding and is providing the perfect mosquito habitat. Combined with the hydrocarbons, heavy metals, construction waste, lawn trimmings, road emulsification, tyre rubber and plastics. This contaminated waste is not only polluting our precious rainfall but also killing our receiving water environments and ocean. Even worse the worlds urban water environments are now so nutrient rich they are supporting Cyanobacterial Toxic Algal Blooms almost year-round which are now considered deadly for pets, biodiversity and triggers for horrific neurological diseases such as Dementia, Parkinson's, Alzheimer's, and MND in humans. The ARI Stormwater Filtration Device (SFD) captures 95% of the physical waste, filters the water to 63micron with no risk of causing flooding. Most importantly the SFD keeps the waste dry meaning we can reuse the waste, engage with rainfall which is earth's natural water replenishment mechanism, all using the existing stormwater infrastructure.

Dr Pia Winberg

From Source to Sea: Reframing Mitigation through Ecological Flows

Dr Pia Winberg is a marine ecologist and entrepreneur with a background in regenerative nutrient cycling, seaweed cultivation, and biotechnology. She is the founder of Venus Shell Systems and PhycoHealth, pioneering Australia's seaweed industry through science-driven solutions for human and planetary health. Her work spans ecosystem restoration, sustainable aquaculture, and integrated food production systems, with a particular focus on nitrogen management and the power of seaweed to transform environmental liabilities into shared ecological value.

Avoiding and minimising environmental impact is critical — but when it comes to nutrient pollution, particularly nitrogen, full mitigation demands deeper systems thinking. In coastal ecosystems, nitrogen excess doesn't disappear; it flows. Downstream impacts like eutrophication and ocean deoxygenation result when upstream industries externalise this burden. This talk will explore how linking the ends of these flows — through seaweed and oyster aquaculture — can transform mitigation into regeneration. Using examples from New South Wales, we'll highlight how coordinated industries, from agriculture to aquaculture, can share responsibility across the nutrient chain, and build new models of mutual benefit between land and sea.

Casey Taylor, Wingecarribee Shire Council

Building our knowledge of Southern Highlands koalas to inform local decision-making.

Casey Taylor is an Environment Officer at Wingecarribee Shire Council with a PhD in ecology from The University of Sydney. Casey currently works with the NSW Government in a regional partnership on the Southern Highlands Koala Conservation Project (SHKCP). The SHKCP delivers on-ground conservation actions for koalas including habitat restoration, community engagement, habitat mapping, monitoring and vehicle-strike mitigation. Wingecarribee Shire Council won first prize in Division B of the Natural Environment

Protection and Enhancement Category at the 2024 LGNSW Excellence in the Environment Awards for their recent work on this project. Prior to her role at Council, Casey worked on various ecological research projects, restoration projects and taught undergraduate ecology and biology.

The Southern Highlands is home to over 3, 000 koalas, however, habitat loss, chlamydia disease, vehicle strike and climate change threaten the long-term survival of our local populations.

The Southern Highlands Koala Conservation Project was established in 2014 to build an understanding of Southern Highlands koalas and address the threats facing their populations. The project aimed to achieve this by focusing on six main areas: population monitoring, private land conservation, habitat restoration, fire management, roadkill, and supporting local wildlife rehabilitators.

A decade on, the Southern Highlands koala population is now recognised as one of the most well-understood in NSW. Years of data collection have led to thousands of koala BioNet records, revealed distinct differences between our east and west sub-populations and distinguished local feed tree preferences and habitat requirements.

This knowledge has informed a local seed collection strategy, koala habitat restoration projects and fine-scale koala habitat mapping, all of which will lead to more successful on-ground conservation actions, better koala habitat protection, and help ensure the long-term survival of our populations

Ana Gracanin, ANU

Connectivity conservation for arboreal marsupials in a fragmented landscape

Dr. Ana Gracanin is a Research Fellow at the Australian National University, where she studies the conservation and ecology of arboreal mammals in fragmented forests. Her PhD work combined spatial modelling, genetic analysis and remote camera surveys to design and assess multi-species wildlife corridors. She now investigates movement, habitat connectivity and the effects of disturbances, such as wildfires, on species like the greater glider. Ana also specialises in tree-hollow ecology and is evaluating hollow-augmentation techniques to benefit greater gliders and other hollow-dependent wildlife.

Creating wildlife corridors is one landscape conservation initiative that can aid in mitigating habitat fragmentation. Ana's PhD thesis combined an evaluative approach in two themes of camera trapping and connectivity conservation, for eight arboreal mammal species. Firstly, testing the effectiveness of a camera trapping method, named the selfie trap, for its utility in obtaining arboreal species presence and absence, and population density data. The second theme utilises the camera trap data to inform species distribution modelling, as part of a connectivity analysis to identify a corridor pathway. This least-cost pathway was further evaluated through ground-truthing to inform conservation and restoration efforts occurring as part of a wildlife corridor established in the broader landscape. Genetic techniques were used for the sugar glider (*Petaurus breviceps*) to quantify the impact of fragmentation and validate the modelled corridor identified from observational data. These results not only explore the impact of fragmentation, barriers to movement and the importance of evaluating models, but also provide the baseline from which future research and monitoring can be compared. This baseline data and evaluative approach is fundamental to quantifying the long-term success of such landscape corridor projects.

Ben Ellis, Department of Climate Change, Energy, the Environment and Water

Staged Offsetting for Biodiversity Development Assessments

Ben is an accredited assessor and has been a member of the ECA for 8 years. He has worked as a private consultant and in NSW government across several roles including Senior Threatened Species Officer, Principal Conservation Planner and Principal BOS Trainer. Ben specialises in the assessment of biodiversity impacts from large-scale state significant development and infrastructure projects.

This presentation provides a practical overview to staged offsetting under the Biodiversity Conservation Act 2016, with a focus on its application during BDAR preparation. Aimed at accredited assessors applying the BAM, it highlights how staged offsetting can help you and your clients manage offsetting costs, gain time to secure biodiversity credits and adapt to changing project designs. The session covers legislative foundations, technical requirements and provides case studies to demonstrate how staging can support adaptive project design and improve alignment between biodiversity impacts and credit retirement.

Alan McKelvey, Partner, Sparke Helmore Lawyers

You haven't complied with a guideline! What will the Land and Environment Court do?

Alan is an Accredited Specialist in Local Government and Planning Law, who regularly advises mining companies, property developers and government agencies on issues associated with environmental planning instruments, planning approvals, environmental licences and voluntary planning agreements.

He has extensive litigation experience, particularly in the New South Wales Land and Environment Court. Alan has conducted a wide variety of merit appeals (including as an advocate), judicial review and civil enforcement proceedings, criminal proceedings (as both prosecutor and defendant), Class 8 matters involving mining projects, objections against compensation following compulsory acquisition, and rating and valuation appeals.

Alan is a recommended lawyer on the Doyles list of 'Leading Town Planning and Development Lawyers', 2025.

Alan McKelvey will provide an analysis of how the Land and Environment Court approaches guidelines and the factors the Court takes into account when deciding whether departures from ecological assessment guidelines will be acceptable and justified in any particular case.

Dani Murphy, Biodiversity Information Systems team, Department of Climate Change, Energy, the Environment and Water; Product owner BioNet Vegetation Classification / BioNet Project Manager; Bionet, remote landscape sensing, strategic policy

BioNet for NSW ecological consultants

Dani has worked in the NSW Public Service environment agencies for 32 years in the biodiversity domain, including field survey and research; threatened species and natural heritage management; policy development and implementation; biodiversity systems and data (BioNet); biodiversity impact and offsetting assessment tools and data (BioMetric).

As Product Owner for BioNet Vegetation Classification, Dani focuses on system maintenance and improvement, data quality and accessibility. As BioNet Project Manager, Dani is involved in all aspects of project management, concurrently managing multiple system projects from minor enhancements to major migrations and new builds, as well as data projects essential for rollout of major tool-ready PCT classification data updates.

NSW BioNet is the state repository and authority for NSW biodiversity data. It began life 44 years and multiple iterations ago. Evolution of its systems, data, functionality and purpose has been complex and it is used in ways quite beyond its original scope. BioNet has lead the way amongst Australian jurisdictional data

repositories and the national biodiversity system has been designed on the back of BioNet. It remains a foundational system and is an important source of primary data and secondary products that feed directly into the BAM Calculator and support assessments under the BOS. Multiple projects currently in progress to modernise the system.

This presentation will cover the BioNet systems, data and products, access, enhancements, and provide guidance on when to contact the BioNet team or the BAM Operations team for assistance.

Dr Chad T. Beranek

From Innovation to Application: The Evolution of Drone Surveys in Australian Wildlife Conservation

Dr. Chad Beranek is a wildlife ecologist specialising in the monitoring of herpetofauna, microbats and arboreal species, the latter with drone technology. Since being a part of the pioneering team in the application of thermal drone surveys for koalas in 2019, Chad has been involved with developing and refining drone methodologies, significantly influencing wildlife monitoring and conservation practices across New South Wales. His expertise includes spatial modelling, abundance mapping, and ecological applications of remote sensing technologies, which he applies to biodiversity assessments, conservation planning, and post-disturbance recovery projects.

Since initial trials for koala detection in 2019, drone-based wildlife surveys in Australia have rapidly evolved to become essential tools for conservation. Early work established the feasibility of thermal imaging for locating cryptic species, with subsequent milestones improving detection accuracy, spatial precision, and survey repeatability. These advances have enabled the integration of drone-derived data into the NSW Biodiversity Assessment Method (BAM), supporting more robust estimates of habitat suitability and species occurrence. Case studies illustrate how abundance mapping informs targeted conservation planning, such as identifying priority management zones through the use of landscape-scale predictive abundance maps. This talk reviews the history of wildlife drone survey development in Australia, highlights key methodological improvements, and demonstrates how cutting-edge aerial monitoring is transforming wildlife management through scalable, precise, and cost-effective data collection to aid conservation management.

Darrel Davies, Liam Emmington, Will Thurston, Geraldene Dalby-Ball

Practicalities of on-ground works, effectively stating what's needed and predicting the cost?

Darrel Davies has over 14 years of experience in the bush regeneration and land management industry, holding a Certificate III in Conservation and Land Management and currently working as a Site Supervisor. He manages multiple sites across Sydney, each presenting a diverse range of vegetation communities, environmental conditions, and operational challenges—including remote sites, endangered ecological communities, and areas requiring biosecurity and targeted weed surveillance.

Liam Emmington holds a Bachelor of Environmental Science & Management and Certificate IV in Project Management and is a quoting specialist and site supervisor for Dragonfly Environmental. Liam has worked in a diverse range of plant communities and ecosystems across Greater Sydney, managing and implementing a diverse range of bush regeneration projects. Liam brings both academic insight and practical expertise to ecological restoration projects and valuable insights into the role and capabilities of a bush regenerator.

William Thurston is an ecologist with over 20 years of experience in natural areas restoration, ranging from traditional Bradley Method regeneration in small pocket parks to large-scale revegetation projects of over 50 hectares. His work spans a wide range of environmental assessments and restoration programs, including Environmental Impact Assessments, Vegetation and Bushland Management Plans, Biodiversity Assessments, BAM assessments, translocation of threatened flora species, soil seed bank translocation, bush regeneration and riparian restoration. A former accredited BAM assessor, William combines in-depth legislative knowledge with botanical identification skills. William also brings extensive project management expertise and

understanding of the commercial market, overseeing logistics, budgeting, staffing, reporting, and stakeholder engagement.

Implementation of ecological works forms the basis of assumed ecological outcomes.

Works can be maintaining existing areas in good condition, to assisting areas through weed removal all the way to total ecological re-creation consisting of planting, direct seeding, establishment and then maintenance. Projects can be creating habitat for threatened species such as Green and Golden Bell Frogs or Saltmarsh for migratory birds. Whether this be via a Vegetation Mgt Plan or a Biodiversity Offset or Stewardship site – most reporting also requires cost estimates. Being linked to bonds and expectations how important is to be accurate? This panel aims to first provide the principles of considerations by experts in the implementation. After a short overview from each speaker we will open for QA and discussion. Ideally we all come away with more confidence and knowing what can be known and what we need to estimate, as well what to do in cases of uncertainty.

Carlie McClung, Principal Project Officer Accreditation Reset Program, Department of Climate Change, Energy, the Environment and Water

Building Integrity and Capacity : The Accreditation Reset Program – Work program deep dive

Carlie has been with DCCEEW for over 5 years in a number of different roles including Project lead for the first accredited assessor audit in 2020/21, the establishment and operation of the BOS Help Desk and currently with the Accreditation Reset Program which includes the delivery of the BOS Compliance and Assurance program.

Carlie has been working in natural resource management for over 25 years. She has had a range of roles in both private consulting and government including local, regional and state. Her experience is diverse across the sector with over 15 years in environmental consulting including environmental planning and assessment, ecology (both aquatic and terrestrial) and environmental management & auditing, and with 10 years' experience working in government roles including Council Senior Environmental Planner, Hunter Central Coast BOS reforms local government support officer and State Government project officer roles.

The Accredited Assessor Reset Program is a key reform initiative to strengthen the integrity and effectiveness of the Biodiversity Offset Scheme.

This presentation provides an update on implementation progress across three priority areas:

1. *Revised Accreditation Scheme Framework*

The review of the current accreditation scheme framework is underway to reflect on current stage of the scheme, the role of an accredited assessor and to enhance the application of the Code of Conduct and Biodiversity Assessment Method (BAM). Updates to roles and responsibilities will be informed by targeted stakeholder consultation during the review process. A legislative process will then follow to update the scheme framework and *Accreditation Scheme for application the BAM Order 2017*.

2. *Training and Capability Development*

In 2024-25, a total of 266 participants completed training across 18 courses. This included 207 existing AAs completed renewal training and 59 participants did main training. A review of the BOS learning journey is underway to consider all roles in the scheme. The training program will be redesigned to align with assessor roles and identified knowledge gaps. This will be supported by the implementation of a new Learning Management System, full in-house delivery of all training content and a modular training structure to improve accessibility and relevance.

3. *Complaints and Feedback Management*

A dedicated team now oversees complaints and feedback, with 46 complaints/feedback received and 21 accreditation actions undertaken in 2024-25. The program promotes a culture of continuous improvement,

recognising both high performance and areas requiring development. A new Compliance and Assurance Framework, released in March 2025, supports voluntary compliance and provides clear, structured pathways for managing professional conduct and work quality matters.

The presentation will also outline the next steps for the program, including planned policy updates, enhanced transparency through auditing, and ongoing stakeholder engagement to ensure the scheme remains fit for purpose

Matt Smith, recipient of the 2024 Ecological Consultants Association of NSW Conservation Grant.

Trophic effects of kangaroos on thick-billed grass wrens

Despite concern that excessive grazing by kangaroos may adversely affect arid zone biodiversity, there is at present little data concerning kangaroos' impacts on arid ecosystems. Anecdotal observations suggest that grazing by over-abundant kangaroo populations may adversely impact the endangered thick-billed grasswren. However, collecting population level data on thick-billed grasswrens with traditional bird surveys is notoriously difficult. To test whether thick-billed grasswren populations are impacted by kangaroo grazing, we are trialling the use of downwards facing cameras inside and outside of three large (400 m x 400 m) kangaroo-proof exclosures on Nature Foundation's Witchelina Reserve, South Australia. Our aim is to investigate whether capture rates are linked to grazing mediated changes in vegetation cover or invertebrate prey abundance. From August 2024 to March 2025, we captured 3304 thick-billed grasswren images. Mean capture rates were initially higher where kangaroos were excluded. Capture rates declined during summer in experimental exclosures while remaining consistent in control plots, potentially in response to vegetation dynamics influenced by the exclusion of kangaroo grazing. Our results indicate that thick-billed grasswren activity may be highly sensitive to changes in productivity and vegetation cover. We suggest that the use of downwards facing cameras is a viable method of monitoring thick-billed grasswrens that can be readily scaled to increase spatial and temporal replication, and that high resolution continuous population and environmental data may be required to capture rapid responses by thick-billed grasswren to environmental change.

Noel Webster

Cool burning for land management – understanding and reliability of outcomes

Over the last 20 years, Noel has been working together with the local Aboriginal community to develop approaches to land management that recognise the cultural values of biodiversity and the environment. Through his custodian and stewardship responsibilities to Yuin Country, he has expanded an appreciation and ability to recognise the cultural and natural values of the environment. Mudjingaalbaraga Firesticks is a project that Noel has initiated and managed, to initiate discussion on Traditional Knowledge Systems amongst local Aboriginal community groups and to develop and implement Traditional burn practices on Country. The project uses low intensity fire (cool burn) to undertake a strategic approach to control local weed species, reduce fire hazard fuels, reconstruct Traditional Aboriginal landscapes, and restore native vegetation to improve biodiversity outcomes on land that have been exposed to the impacts of mistreatment and lack of recognition to bio cultural land management practices. The project includes workshops to teach local community to understand landscapes, how to read the fire indicators, and when to apply the appropriate fire knowledge. Noel is well equipped at applying Traditional ecological practice to improve landscape wellbeing, this way of teaching can be functional across broader landscapes. Noel is keen to engage with non-Indigenous land holders to share his knowledge.

Daniel Natoli, Managing Director, AKA Acoustics Pty Ltd

Noise Impacts on Wildlife: Measuring and Mitigating Effects in the Field

Daniel Natoli is a multi-award-winning engineer and established leader in the fields of design, acoustics, and technology. Daniel holds a Master of Architectural Science (Audio & Acoustics) from The University of Sydney,

where he was recognised on the Dean's List of Excellence in Academic Performance. He is a Member of the Australian Acoustical Society, an Affiliate of Engineering Australia, and serves as a chairperson of the Sydney Section of the Audio Engineering Society. In 2020, Daniel was awarded the Australian Institute of Building NSW Chapter Presidents Award for his research contributions to the industry.

The ecological consequences of anthropogenic noise on wildlife are increasingly recognised among ecologists but the challenge of accurately measuring these impacts, and implementing effective mitigation strategies, remains.

Daniel will discuss the various methods of measuring noise exposure, the strengths and limitations of different monitoring approaches, and how this is relevant to ecological impact assessments.

Practical mitigation solutions will also be discussed with case studies illustrating how robust acoustic data can guide conservation interventions and improve outcomes for sensitive species.

Dr Adam Roff, Department of Climate Change, Energy, the Environment and Water

The latest from Vegetation and Biodiversity Mapping including Restore Trees NSW and AI

Adam's speciality is bringing technological innovation to ecology. He works closely with ecologists to seek a deep understanding of their requirements and then design technological solutions that increase their productivity. Most recently he has been using AI to map woody vegetation and find koalas using drones.

New AI spatial products to show, including a map of every tree in NSW at 1.5m resolution that should be on SEED in a few months.