



Environment Institute  
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# ANET 2026

## BREAKING THE BARRIERS

INNOVATING TO IMPROVE ECOLOGICAL OUTCOMES  
ON TRANSPORT AND OTHER LINEAR INFRASTRUCTURE  
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## ABSTRACT

### Echidnas and Roads: Filling the Evidence Gap for Effective Mitigation

The short-beaked echidna (*Tachyglossus aculeatus*) is among Australia's most widespread native mammals yet remains one of the least studied. Despite its ecological and cultural importance, there is no baseline information on abundance, distribution, or population trends across most regions. This absence of systematic data limits understanding of the species' interaction with roads and constrains evidence-based investment in mitigation such as wildlife crossings and exclusion fencing. Through the EchidnaWatch program—an ongoing collaboration between Wildlife Queensland and The University of Queensland—systematic data collection is beginning to build a clearer picture of echidna ecology in South-East Queensland. Community reports, camera trapping, and spatial records indicate strong seasonal patterns in activity, with peak movement and detectability during the cooler breeding months when individuals are most active and more likely to encounter roads. An exploratory spatial analysis currently underway will map echidna records and reported incidents to identify roads with frequent observations or mortality hotspots. These data will provide an initial basis for assessing spatial patterns of risk and guiding targeted mitigation. This presentation will examine the implications of limited data for road ecology, discuss methods for integrating community-based monitoring with spatial ecology, and outline steps toward establishing a coordinated baseline framework for echidnas. Addressing these data gaps is critical to ensure that conservation and road-planning decisions are inclusive of species currently regarded as “common” but for which empirical evidence remains sparse.

## KEY TAKEAWAYS

1. Critical data gaps: Echidnas lack baseline population and distribution data essential for road ecology.
2. Seasonal activity: Peak winter movement increases exposure to vehicle collision risk.
3. Evidence base: Mapping and community data integration are key to prioritising mitigation and monitoring.

## SPEAKER BIOGRAPHY

**Dr Kate Dutton-Regester** is a wildlife ecologist and lecturer in Veterinary Public Health at The University of Queensland, with research spanning wildlife ecology, conservation physiology, and community engagement in biodiversity monitoring. Her work integrates citizen science, ecological data, and applied research to improve understanding and management of Australian wildlife across diverse landscapes. Kate leads the 'Building a Baseline – Echidna Conservation through Community Engagement' program in partnership with Wildlife Queensland, which is establishing the first coordinated baseline for the short-beaked echidna (*Tachyglossus aculeatus*) in South-East Queensland. Through the EchidnaWatch citizen-science platform, she works with councils, community groups, and volunteers to collect and map records of echidna activity, building a foundation for evidence-based conservation and land-use planning. Her broader research examines wildlife health and population trends using diverse datasets, including wildlife hospital admissions and camera-trap surveys.