WELCOME


The conference will focus on the intersection of people and linear infrastructure, specifically how both people and nature are connected through the ecological interactions with and impacts of transportation infrastructure, and the many and varied solutions.

ANET has held international conferences in Brisbane in 2009 (together with EIANZ) and Coffs Harbour in 2014, focusing on sharing global best practice in identifying and mitigating the ecological impacts of all types of linear infrastructure and transport, including road, rail, pipelines and utility easements.

We have come a long way since 2009, in both our understanding of the significant effects that roads, rail and other linear infrastructure can have on species, habitats, ecosystems and landscapes, as well as the many potential solutions and their effectiveness. This year, we also focus on the connections that people have with nature, understanding that transport corridors are important for their biodiversity values, but also for their landscape values and the sense of place that roadways and other linear corridors give many in our community.

The next few years will see a coming together of communities and agencies as transportation networks are expanded, widened and improved in what is set to be an unprecedented investment in transportation infrastructure across Australia. Through working together across disciplines, we can ensure that the transportation infrastructure not only provides safe and efficient transport, but also enhances ecosystem function and exceeds community expectations of ecological management. ANET is at the forefront of ensuring that the very best science and evidence can be used to inform decision-making and achieve exceptional environmental outcomes.

This year, ANET has partnered with the EIANZ to deliver this conference. Both organisations share the goals of connecting research and practice, science and policy, and user and manager to achieve excellence in environmental outcomes.

Thanks to our generous sponsors for the conference, in particular the principal sponsor VicRoads.

We hope through this conference you will learn about the latest research, policy and practice and be inspired to improve the ecological outcomes of your projects in the future!

Dr Rodney van der Ree
Chair, ANET Organising Committee

Martin Juniper MEIANZ, CEnvP
President, EIANZ Victorian Division

MARCEL HUIJSER

Dr Marcel Huijser is a lead researcher in road ecology at the Western Transportation Institute at Montana State University, USA, where he leads a range of road and wildlife related projects for state and federal governments, counties, foundations, and other funders.

He was the lead scientist on the 15-year long US Highway 93 wildlife mitigation project, which was a 90km long highway duplication project that dissected important natural habitats, agricultural land, and small villages on the Flathead Indian Reservation.

Marcel is recognised internationally for his work on the development and testing of animal detection systems that alert drivers to the presence of large mammals along highways, having conducted trials in Yellowstone National Park, California, Colorado, Idaho, Montana, and Pennsylvania. Marcel and colleagues at WTI have undertaken a number of commissioned reports for the national US government on measures aimed at reducing wildlife-vehicle collisions and at mitigating the barrier effects of transportation infrastructure.

Marcel is also a visiting professor at the University of São Paulo in Brazil where he has been teaching road ecology on a regular basis since 2014 and collaborating on a diverse suite of road-impact and mitigation studies. Some of these Brazilian projects include quantifying roadkill along the toll roads in São Paulo State, the development of a Brazilian animal detection system, and the evaluation of wildlife mitigation measures along the road through Carlos Botelho State Park that hosts one of the largest remaining fragments of Atlantic forest in Southern Brazil with threatened and endangered species such as the jaguar, southern muriqui and South American tapir.

Marcel’s Ph.D. (2000) was on hedgehog road mortality and mitigation strategies in The Netherlands, in collaboration with the Dutch Society for the Study and Conservation of Mammals. In his spare time and professionally, Marcel writes a blog of road ecology photos, and his photo website probably hosts the largest collection of road ecology images in the world.

KIRSTEN PARRIS

Kirsten Parris is an Associate Professor of Urban Ecology in the School of Ecosystem and Forest Sciences at The University of Melbourne, and the Deputy Leader of the National Environmental Science Program (NESP) Hub for Clean Air and Urban Landscapes (CAUL).

She has a deep affinity with frogs, and research interests that span urban ecology, conservation biology, animal behaviour, field survey methods and ecological ethics. In 2016, she published Ecology of Urban Environments (Wiley Blackwell), a text book for upper-level undergraduate and Masters students that provides an accessible introduction to urban ecology, using existing ecological theory to identify generalities in the complexity of urban environments.

Kirsten’s current research projects focus on the impacts of urban noise on acoustic communication in birds and frogs; the ecological costs and benefits of artificial wetlands in urban landscapes; community ecology in cities; and practical ways in which humans can better share the urban environment with other species. She also enjoys science communication including stand-up science comedy.

You can read more about her research at kirstenparris.com.
## Sunday 29 April 2018
- **4:00pm – 6:00pm**  
  Registration | Hepburn Foyer

## Monday 30 April 2018

### 8:00am – 8:30am
- **REGISTRATION**

### 8:30am – 8:50am
- Welcome to Country

### 9:00am – 10:00am
- **PLENARY** | Road ecology: Are we taking the right turns? | Marcel Huijser, Montana State University  
  CHAIR: Scott Watson

### 10:00am – 10:30am
- **PRESENTATION** | Bitumen and birds | Gillian Sparkes, Commissioner for Environmental Sustainability Victoria

### 10:30am – 11:00am
- **MORNING TEA**

### 11:00am - 12:00pm
- **INVITED PRESENTATIONS**  
  CHAIR: Martin Juniper

### 11:00am - 11:20am
- Connecting road engineers, planners and decision-makers with nature: A VicRoads pilot program | Chris McCormack

### 11:20am - 11:40am
- Connecting road engineers, planners and decision-makers with nature: A VicRoads pilot program | Chris McCormack

### 11:40am – 12:00pm
- **LUNCH**

### 12:00pm – 1:00pm
- **MORNING TEA**

### 1:00pm – 1:25pm
-  
  **PROJECT AND POLICY INSIGHTS**  
  CHAIR: Amy Blacker  
  Session sponsor: Cardno

### 1:00pm – 1:15pm
- Approaches to positioning crossing structures to facilitate emu movements across a major highway | Chris Thomson

### 1:15pm – 1:30pm
- Are we monitoring in the dark? Implementation of a bat framework on a road project in Hamilton, New Zealand | Fiona Davies

### 1:30pm – 1:45pm
- Gardens are not just for wall skinks - a threatened reptile in the suburb | Elvira Lanham

### 1:45pm – 2:00pm
- Green and golden frog guidelines for construction projects | Victoria Harvey

### 2:00pm – 2:15pm
- Logan Enhancement Project: A collaborative approach to road ecology connectivity | Richard Pidgeon and Andrew Baker

### 2:15pm – 2:30pm
- The long and winding road to better ecological outcomes | Carol Bannock

### 2:30pm - 3:00pm
- **AFTERNOON TEA**

### 3:00pm – 3:20pm
- Engaging Traditional Owners with road planning and construction | Aunty Doreen and Matt Mooney

### 3:25pm – 4:20pm
- **LIGHTNING TALKS** (5 minutes each)  
  CHAIR: Darryl Jones

#### Time lapse and concrete pipes: Some surprises from two years of frog pipe monitoring
- Brendan Taylor
- Ross Goldingay

#### Validating collision model predictions with disparate datasets: A case for a unified system
- Casey Visentin
- Matt Davis

#### Mitigating the ecological impacts of transportation infrastructure: A compilation of global case studies
- Rodney van der Ree
- Nic McCaffrey

#### When does a hot spot go cold? A method for looking at hot spots over time
- Cathryn Dexter
- Kylie Soanes

### 4:30pm – 5:00pm
- **POSTER AND TRADES SESSION**

### 5:30pm – 7:00pm
- Networking / free time

### 7:00pm – 9:00pm
- **BBQ**

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### Trade Displays

**ACO**  
Advanced Telemetry Systems Australia

**Ecodynamics**  
Ecology and Heritage Partners

**Griffith University**  
North East Link Authority

**Transurban**  
Vis Roads

**TRADE DISPLAYS**

**Environmental Sustainability Victoria**  
Gillian Sparkes, Commissioner for Environmental Sustainability Victoria

**STUDENT POSTERS**

**Poster Sponsor:** Aunty Doreen and Matt Mooney
Tuesday 1 May 2018

8:00am – 8:30am REGISTRATION

8:30am - 9:00am Delivering Inland Rail: Environmental assessment, design and management | Inland rail
CHAIR: Josie Stokes
Session sponsor: NSW Roads and Maritime Services

9:00am – 10:00am PLENARY | Noise and light | Kirsten Parris, University of Melbourne
CHAIR: Josie Stokes
Session sponsor: NSW Roads and Maritime Services

10:00am – 10:30am MORNING TEA

10:30am - 10:50am PRESENTATION | The evolution of ecology in Infrastructure Rating Schemes (IRCS) | Kirsty Bauer, Infrastructure Sustainability Council of Australia

10:50am - 12:00p PANEL DISCUSSION
Genuine community engagement on large infrastructure projects: Lessons learnt from road projects in Victoria | Kelly Parkinson, Bart Popielcyzk, Helen Lewers, Louise Costa-Pelle, Sharon Edlich
CHAIR: Helen Neely

12:00pm – 1:00pm LUNCH

1:00pm – 2:30pm CONCURRENT SESSIONS

1:00pm – 1:15pm Sourcing biodiversity offsets within a market based system | Julie Ravillion

1:15pm – 1:30pm Using innovative methods to assess development impacts and biodiversity offset requirements in NSW | John Seidel

1:30pm – 1:45pm Taking the landscape view: from ad hoc to strategic offsets | Heini Kujala

1:45pm – 2:00pm Approaches to offsetting in Victoria | Penny Croucamp

2:00pm – 2:15pm Offsets panel discussion | Martine Maron, Julie Ravillion, Penny Croucamp, Heini Kujala, John Seidel, Chris Murphy

2:15pm– 2:30pm How did the frog cross the road? Design standards for road crossings | Jonathon McLean

2:30pm - 3:00pm AFTERNOON TEA

Tuesday 1 May 2018 - Afternoon

3:00pm – 4:30pm CONCURRENT SESSIONS

3:00pm – 3:15pm Application of connectivity modelling to highly fragmented urban landscapes at local scales | Austin O’Malley

3:15pm – 3:30pm Reforms of native vegetation laws in VIC & NSW: Legal update for linear infrastructure | Gabrielle Guthrie

3:30pm – 3:45pm Road effect zone for bats not caused by lack of insects | Marisha Bhaduray

3:45 pm– 4:00pm Woolgoolga to Ballina Pacific Highway upgrade koala management | Scott Lawrence

4:00pm – 4:15pm Insectivorous bat roosts in road structures in Brisbane | Vanessa Gorecki

4:15pm - 4:30pm How the retaining wall form effects snakes crossing the road in Taiwan | You Shicheng

4:30pm - 5:30pm Integrated assessment of flyover structures, habitat selection and connectivity | Darryl Jones

5:30pm – 5:50pm Overview of the use of wildlife crossing structures on the Calder Freeway | Lee Harrison

5:50pm - 6:30pm Networking / free time

6:45pm - 7:30pm Pre-dinner drinks and nibbles

7:30pm - 11:00pm THE DEPARTMENT OF ENVIRONMENT, LAND, WATER AND PLANNING GALA DINNER | Great Ballroom
DELWP SPEAKER: James Todd
GUEST SPEAKER: Dr Gary Vease
Wednesday 2 May 2018 | CALDER FREEWAY

The Calder Freeway is one of Victoria’s most important regional highways, connecting Melbourne to Victoria’s fourth largest town, Bendigo, and onwards to north-west Victoria and south-west New South Wales. The Calder Freeway also provides access to a rapidly expanding growth area to the north-west of Melbourne.

The single-lane Calder highway was duplicated to freeway status in the late 1990s and early 2000s, and included numerous examples of fauna-sensitive road design, such as under- and over-passes, fencing and extensive revegetation.

In this field trip, we will explore the 41km section between Kyneton and Ravenswood, and discuss the successes and opportunities for improvement. We will also visit a section of V-Line railway that has the highest rate of kangaroo-train collision in Victoria to discuss the challenges, and the almost completed Ravenswood Interchange.

SITES VISITED

RAVENSWOOD INTERCHANGE | 45 MINUTES
- An introduction to the project will be provided by VicRoads followed by a discussion on community interaction.
- Nick Somes from EcoDynamics will discuss large scale revegetation in infrastructure projects.

SPECIMEN GULLY ROAD | 30 MINUTES
- Site of a 3m x 3m concrete box culvert with co-use for Goldfields walking trail.
- Fencing demonstration by Animex Fencing

FOREST CREEK ROAD | 30 MINUTES
- Large open span bridge a few minutes from Specimen Gully Rd
- Discussion on monitoring use of underpass with cameras

CHEWTON | 30 MINUTES
- Chewton to Taradale section of V-Line track has highest rate of kangaroo collisions in Victoria.
- Linda Neilson, V-Line will lead a discussion on the issue and potential solutions.

METCALFE-TARADALE ROAD | 30-45 MINUTES
- This site has a number of culverts
- Discussion on revegetation and planning design issues.

POTTS ROAD | 30-45 MINUTES
- Site includes three pipes for drainage and a 3m x 3m culvert for wildlife.

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FIELD TRIP SPONSOR

LANYARD SPONSOR
Transurban $512 million Logan Enhancement Project includes widening sections of the Logan and Gateway motorways, improving key congestion hot spots (Logan Motorway/Mt Lindsey Highway/Beaudesert Road interchange and the Wembley Road/Logan Motorway interchange) and constructing new south-facing on and off-ramps on the Gateway Extension Motorway at Compton Road.

The project is the first Market-Led Proposal to be approved in Queensland by the State Government.

The project will improve safety and reliability, reduce travel times, enhance connectivity to key residential and business areas, and future proof the network.

Setting a new benchmark for road ecology in Australia, the project also includes a number of new fauna crossings and other benefits.

For more information
loganenhancementproject.com.au