

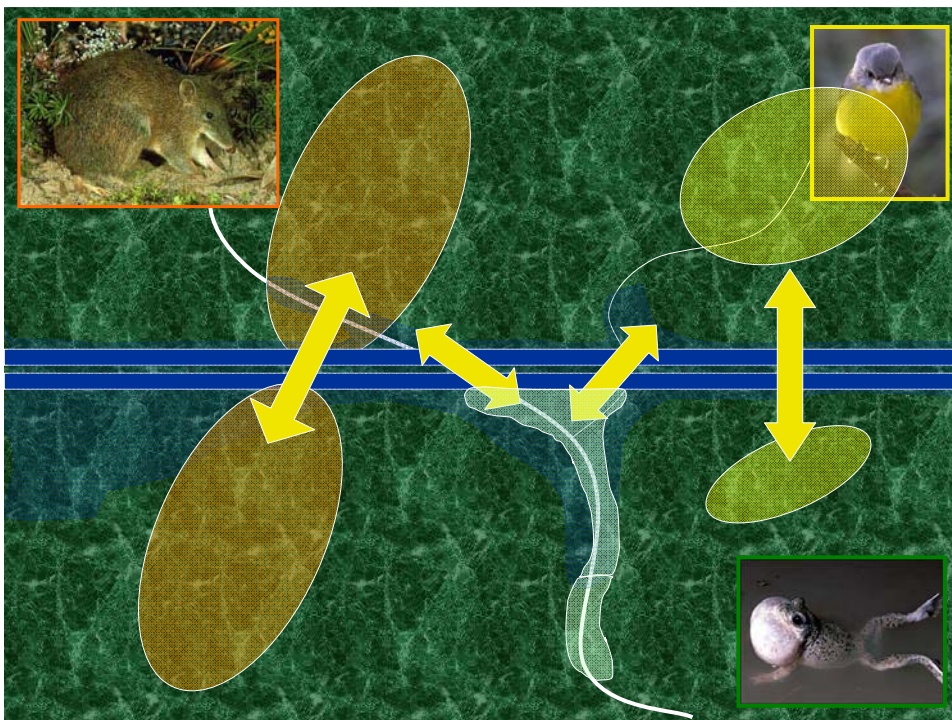
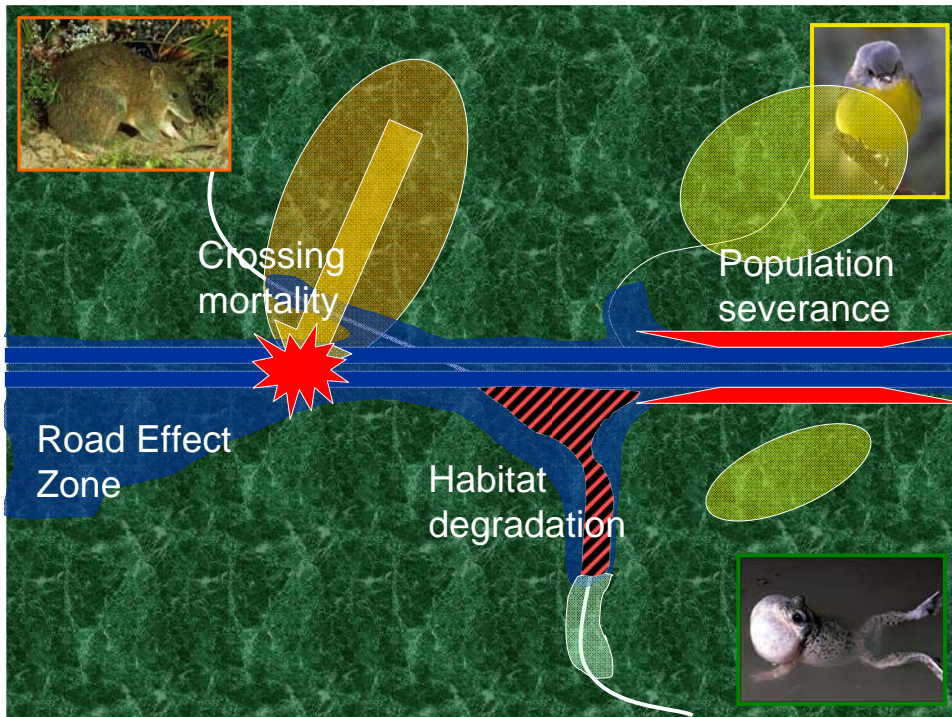
Monitoring matters!

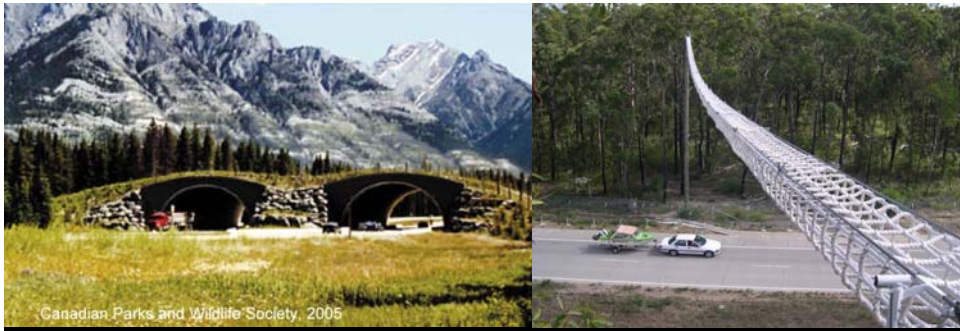
The importance of critical assessment
of fauna use of crossing structures

Darryl Jones

Centre for Innovative Conservation Strategies
Griffith University







©Canadian Parks and Wildlife Society, 2005

Structures designed to overcome the barrier effect



Many structures have been assessed

(van der Ree *et al.* 2007)

- 123 studies, 13 countries, 1864 structures
- **Criteria for effectiveness** (Foreman *et al.* 2002):
 - Reduce road-kill
 - Enhance connectivity
 - Maintain genetic interchange
 - Enable dispersal and re-colonisation
- ALL (100%) WERE SUCCESSFUL at the individual level
- Less certain about conservation gain
- MOST findings limited by inadequate monitoring
- MOST structures not monitored

Monitoring = credibility!

Influence of research on road design limited by:

- Poor design for testing
- Inadequate replication
- Insufficient sampling
- Lack of precedence



The Compton Road Project

Reducing road-kill
Enhancing connectivity

Up-grade started in
2004



Reducing crossing mortality?

Macropod 2
 Possum 1
 Bandicoot 1
 Bird 3
 Reptile 2
 Feral 2

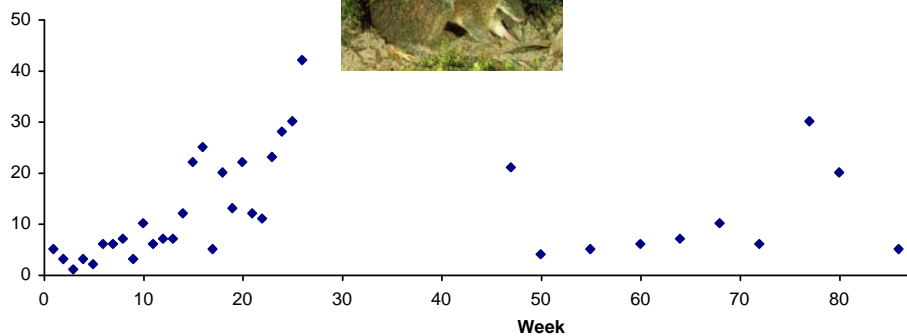
Macropod 1
 Bird 1

Macropod 1
 Possum 2
 Reptile 1
 Bird 1
 Koala 1



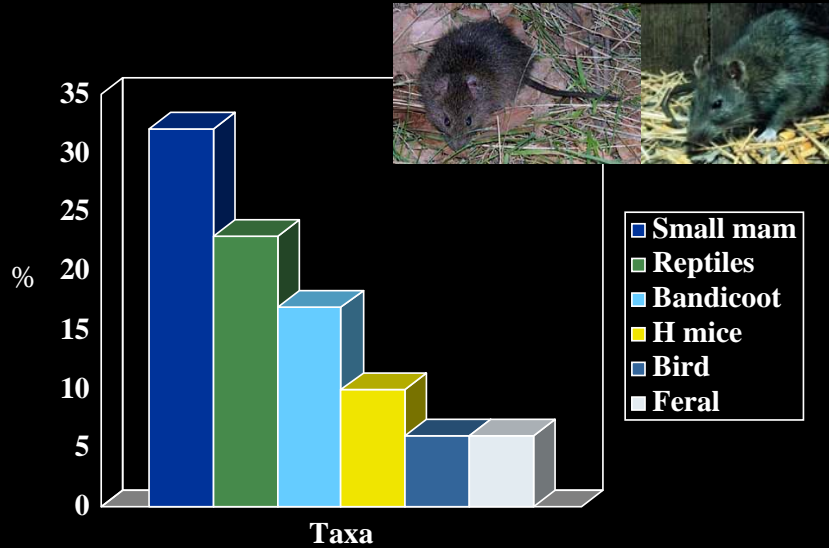
Underpass use

Consistent from start of surveys
 Strong seasonal effects

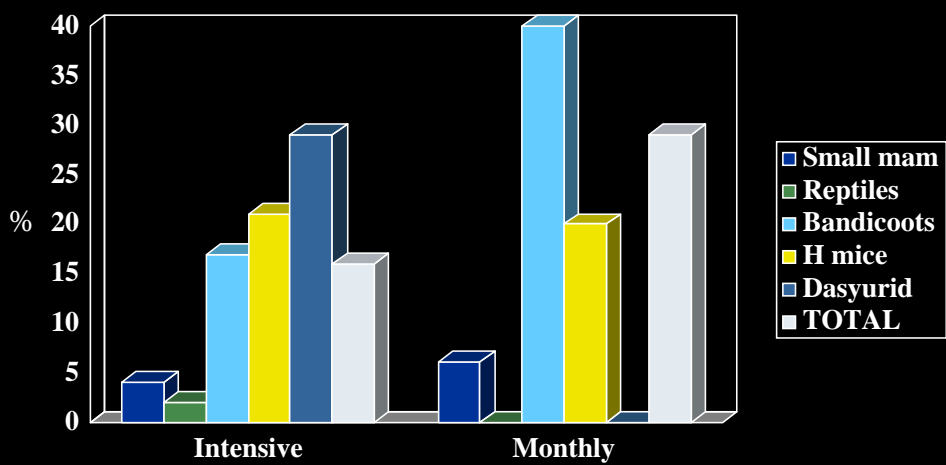


Main taxa using both underpasses

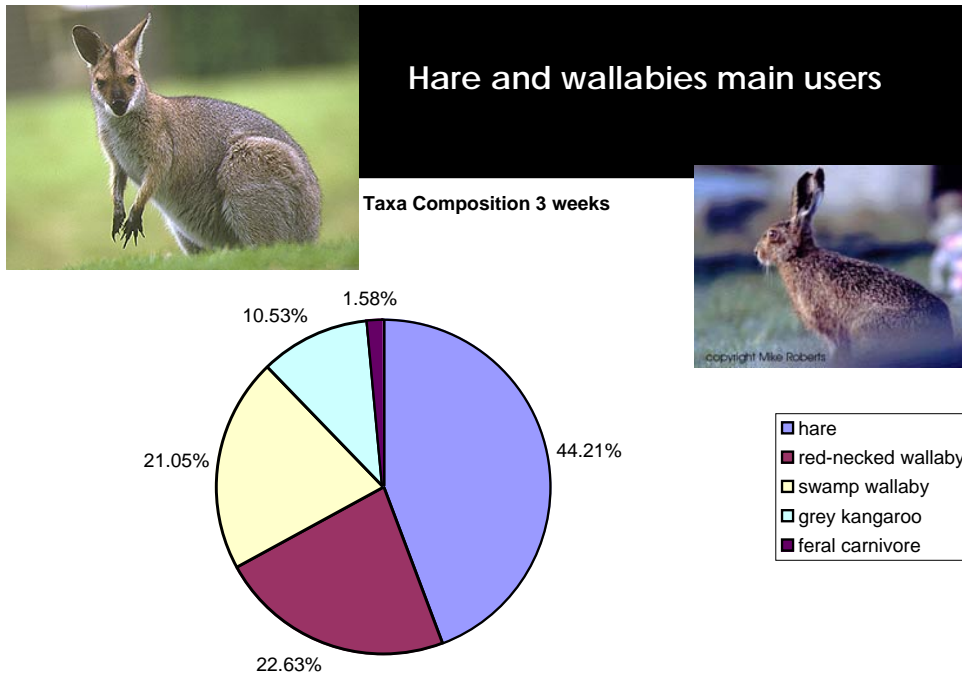
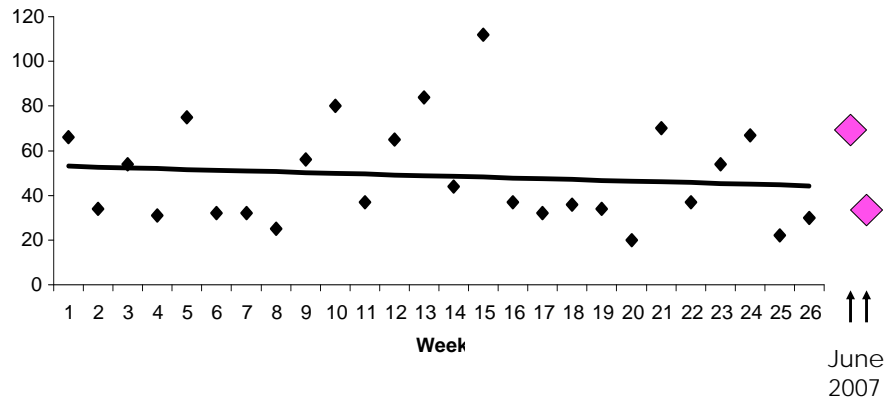
(n = 1125 tracks)



Percent making full crossings



Regular use of land-bridge throughout study



Land-bridge as habitat



Land-bridge now supports 8+ herps

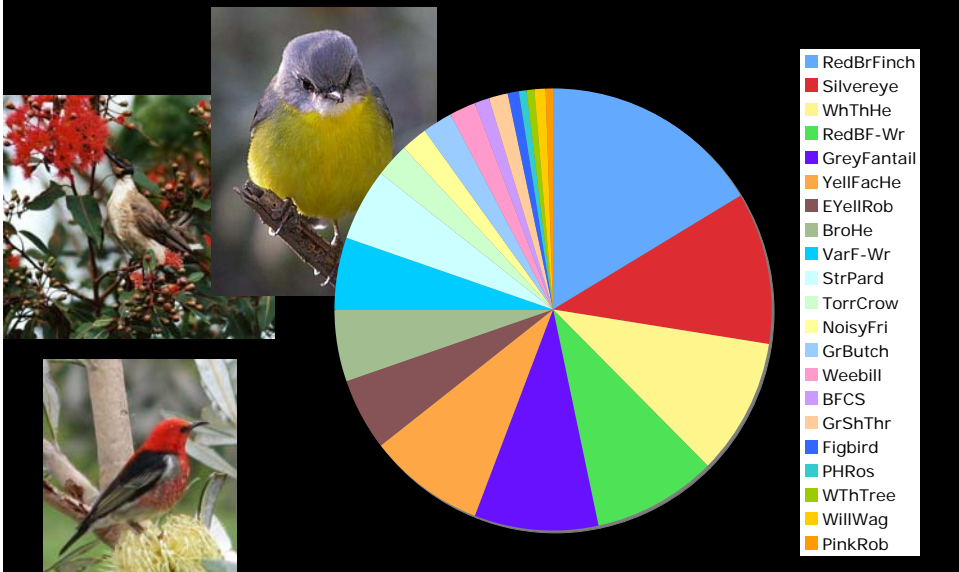


Eastern striped skink
Yellow-faced whip snake
Ornate burrowing frog
Copper-backed broodfrog
Dubious gecko

.. and cover for moving animals



Small bird species cross the road over the land-bridge
(12-30 birds per day)



Monitoring matters!

Advances knowledge

Allows comparisons

Provides factual basis for assessment

Proves precedence

Enables evaluation