

# Food subsidies for pest animals? An outdoor piggery study

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Many carnivore species readily exploit high-energy anthropogenic food sources, leading to subsidised predator populations.

**1 Where are the problem sites?**  
Using remote sensing cameras, we examined fox activity at an outdoor piggery to identify the level of threat posed by fox predation to piglets. We recorded a focus of fox activity around the farm **carcass pit**, where up to five individuals were present in one image, but foxes were also present **around farrowing huts**.



Foxes observed approaching, tracking and taking piglets

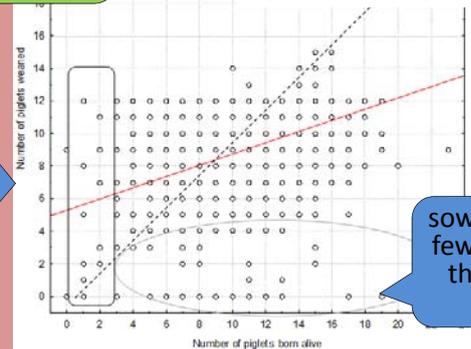
**2 Does predation risk vary between sows, between gilts and experienced sows ('parity')? or by proximity to native vegetation?**

Analysis of 3 years of farrowing/weaning data

Effect on weaning rate		F	P
Sow ID	Random	1.28	***
Parity	Fixed (covariate)	0.37	ns
Paddock ID	Random	1.00	ns
Dist. to vegetation	Fixed (covariate)	0.06	ns
Position on farm	Fixed	2.38	ns

no effect of parity

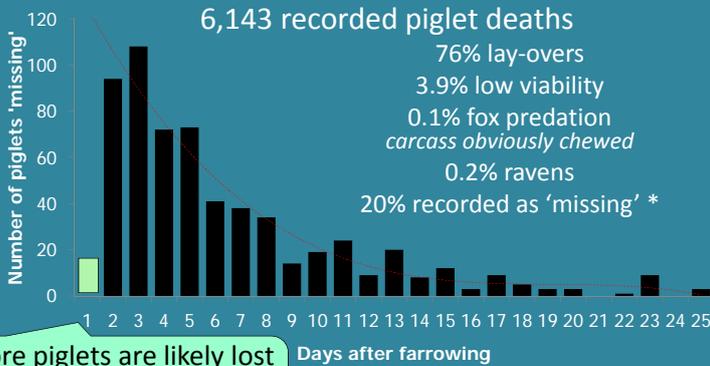
no effect of distance to vegetation or proximity to paddocks



sows with few piglets born (i.e. piglets lost before recorded)

sows weaned fewer piglets than were born

**3 Are piglets more vulnerable at a particular life stage?**  
Although few piglets recorded as lost to fox predation, foxes are likely contributing to the 20% of piglets born that are later reported 'missing'. Newborn and young piglets are the most vulnerable, especially when they are born in the paddock (rather than houses provided for sows).



more piglets are likely lost on their first day than the number (n=15) recorded

\* Human error may inflate this figure

**4 Where do foxes take food (can we locate dens)?**  
GPS trackers on 32 piglet carcasses  

- 9 removed by foxes
- 3 were moved 0.02-1.21 km away from original location



foxes mostly kept carcasses within cover (native vegetation)

piglet carcasses placed in remnant vegetation moved by fox through dry sow paddocks



Improving predator control on outdoor piggeries:  

- Managing offal pits needed: covering the pig carcass pit, or fencing it to keep out foxes
- Removing hay from paddocks (reduce paddock farrowing)

Drawing attention to the behaviour of predators in outdoor/free-range piggeries will increase focus on predator control to improve outdoor production figures for the Australian pork industry.

