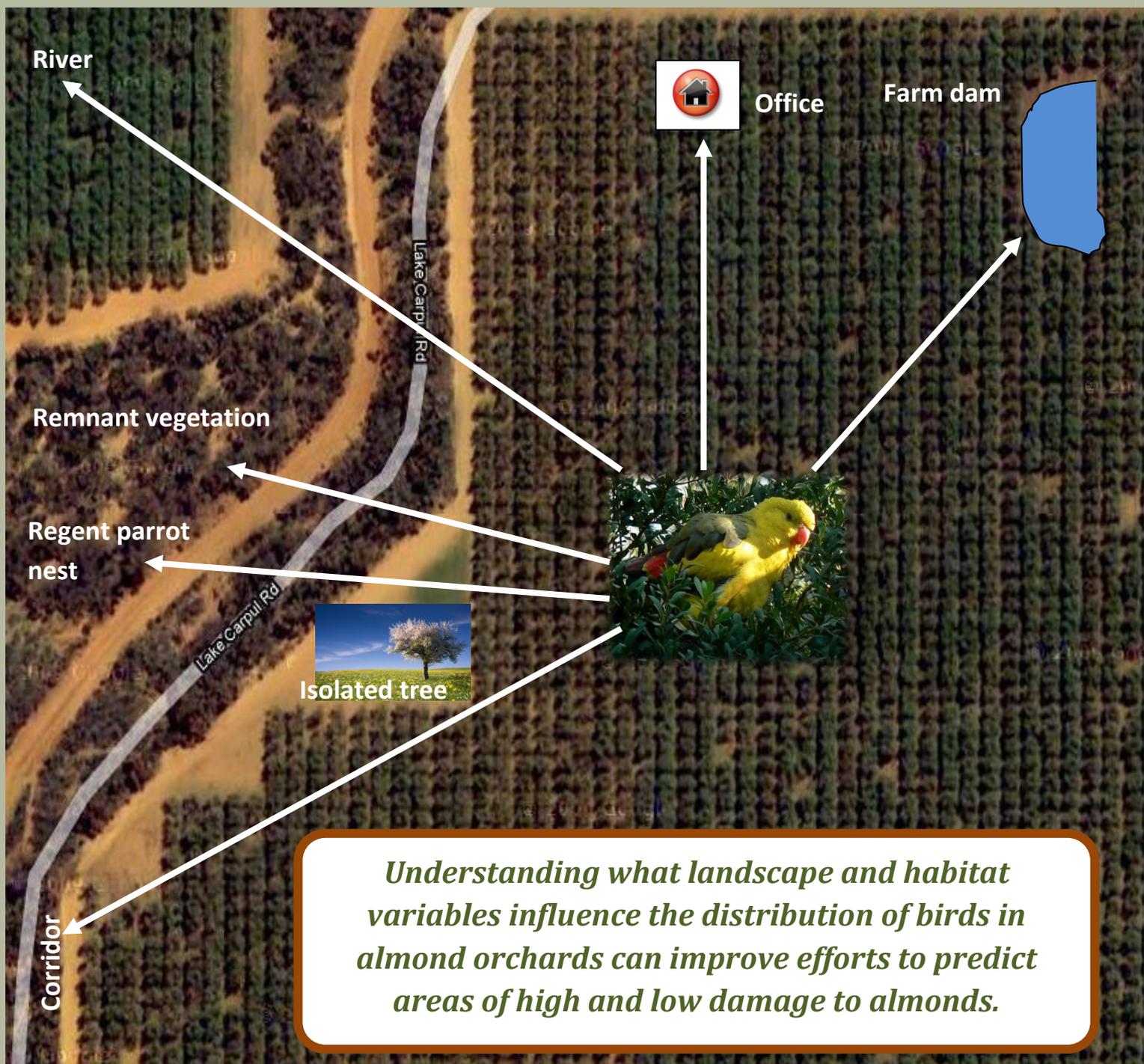


2. Landscape features influencing birds in almond orchards

This research aimed at investigating the influence of key landscape features and habitat on the occurrence of Regent parrots and Small parrots in almond orchards.

Bird use and damage to crops can be highly variable spatially depending on several factors: distance of the crop from primary habitat, landscape surrounding the crop (i.e. paddock trees, corridors, powerlines used as perch sites or retreat sites to avoid predators, human dwellings), habitat affinity of the bird species, food availability, predation risk, escape behaviour, foraging behaviour, food gathering economics.



Habitat cover

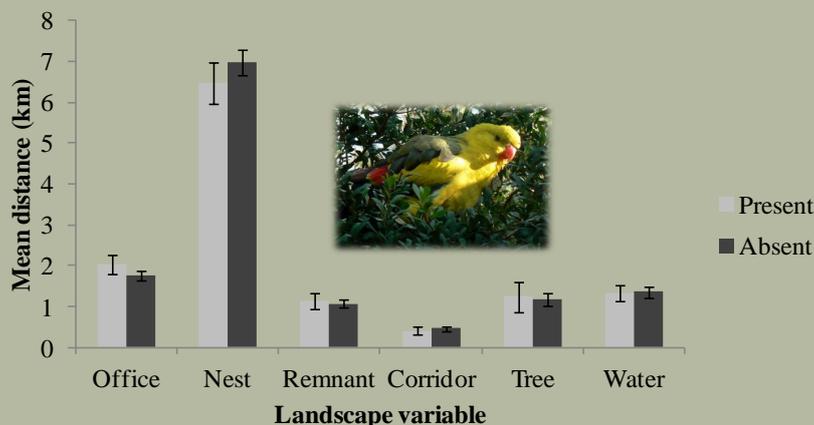
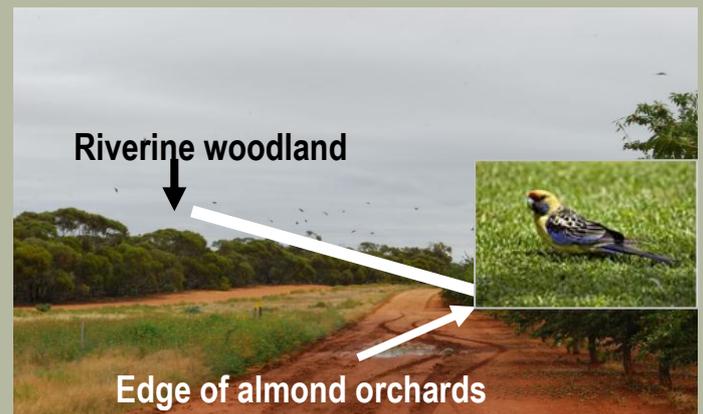
Bird transect surveys for Regent parrots and Small parrots were strategically located in areas of low, medium and high bird damage.

The percent cover of different habitat types and their influence on bird occurrence was investigated at different scales (0.5km and 5km radius from the centre of the transect survey). Land cover types included: almonds, annual crops (e.g. wheat), farmland, shrubland, casuarina, mallee, riverine, and water.

- **Birds abundance is highly variable in farms.**
- **Small parrots were more abundant in horticultural crops than almond plantations. They occurred in almonds only in the dry season (2009/2010).**
- **Regent parrots associated more with mallee vegetation than almonds. They occur in almonds only in the dry season, and when other food resources were not available (2009/2010).**

Landscape features

Small parrots occur mainly in dry years. They may favour the edges of almond crops near to farmland, and within easy access of riverine woodland. They also avoid areas with human activity.



Regent parrots occur also in dry years and close to nest sites. Proximity of almond crops to remnant vegetation may be important when availability of natural food resources is scarce.

The results suggest that in wet years birds may prefer mallee vegetation to almond plantations, but in dry years, birds will use almonds as a supplementary food source when naturally occurring food is limited.