

RESEARCH IN PROGRESS

Delivering ecosystem services to agriculture

Description:

Ecosystem services are the functions provided by nature, to humanity, that sustain human life. They include pollination of crops, control of pests, seed dispersal and climate regulation. Agriculture would collapse without ecosystem services. For example, it is estimated that pollination of agricultural crops by bees has a value of around \$5–14 billion/year in the United States alone. Approximately 35% of global food production comes from crops pollinated by bees or birds.

Funding: ARC Discovery Grant
Project leaders: Dr Gary Luck, Dr Peter Spooner
The project will run from 2009 - 2012

Objectives:

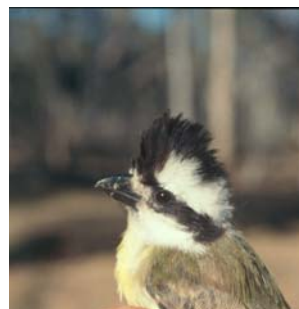
1. Determine the range of services provided to agriculture by birds.
2. Determine how to best design agricultural landscapes to maximise the opportunities to benefit from nature's services.

Methods:

Our study will focus on the Murray River and stretch from Albury to Mildura in northern Victoria. We will use information on bird distribution and behaviour to determine which regions contain birds that could provide services to agriculture (e.g. pest control). We will match this information with agricultural land use to determine if land is being managed in a way that maximises the opportunities to benefit from nature's services.

Outcomes:

- Improved understanding of the contribution of birds and other organisms to agricultural productivity.
- Improved land management to optimise the delivery of ecosystem services to agriculture.



Above and left: Farm forestry may benefit from insect pest control provided by species like the Crested Shrike-tit



Left: The New Holland Honeyeater is an important pollinator of many plants

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