



LANDSCAPE AND SPECIES MANAGEMENT IS SUPPORTED BY ECOKNOWLEDGE'S SUITE OF SPECIALISED TRACKING, TRAPPING AND ANALYTICAL SERVICES.

EcoKnowledge has extensive experience in wildlife and land system monitoring, an essential part of natural resource management and adaptive management. In particular, we specialise in wildlife aerial surveys and animal trapping.

AERIAL & TERRESTRIAL SURVEYS

Wildlife aerial surveys provide broad-scale estimates of the distribution and abundance of medium to large mammals (including threatened, abundant and pest animal species). With our calibrated observers EcoKnowledge designs, manages and executes aerial surveys to meet a desired management outcome and with the required statistical precision.

Aerial surveys are conducted using either helicopters or fixed-wing aircraft. We own strut-mounted fixed-sighting equipment and electronic data loggers. We have also developed our own 'Flystat' and 'Aerial Survey' software, which automates data collection and quickly derives distribution, density and abundance statistics.

CAPTURE & TRAPPING

EcoKnowledge also specialises in the capture, handling and collaring of animals of almost any size, from hopping mice to camels. Our staff have extensive experience in pitfall trapping small mammals and reptiles for mark recapture studies. When trapping large animals, such as wallabies, we have the expertise required to safely immobilise them and carefully manage animal welfare.

SPECIALTY SERVICES

EcoKnowledge specialises in:

- survey design and management
- execution and analysis of distance sampling and fixed strip-width surveys (both aerial and ground-based)
- Elliot and pitfall trapping
- radio tracking
- medium-sized mammal mark-recapture and data analysis
- aerial observer training
- modelling home ranges and movement of species

Aerial and biological surveying



- use of specialised GPS units to undertake weed and fauna surveys for GIS habitat mapping and modelling process
- aquatic ecosystem surveys and assessments
- tree condition surveys in the riparian zone and on floodplains.

DEMONSTRATED EXPERTISE

We have designed and conducted the following trapping, observation sampling and aerial surveys:

- aerial survey distance sampling and fixed strip-width sampling of goats, wallabies, deer and camels
- analysis and modelling of aerial survey data for camels, Yellow-footed Rock-wallabies, kangaroos and goats
- design and implementation of aerial surveys in WA and SA
- Elliot and pitfall trapping on the Eyre Peninsula, Murray Mallee and Riverland for reptiles and small mammals, including hopping mice and Sandhill Dunnarts
- mark-recapture and analysis of Tamar Wallabies and Yellow-footed Rock-wallabies
- ground-based distance sampling and fixed strip-width sampling of kangaroos in the Flinders Ranges and Riverland
- radio tracking, including:
 - small and medium-sized mammal tracking (from mice to wallabies)
 - camel immobilisation, capture and GPS/satellite tracking
- close-range planimetric and oblique colour-infrared aerial image data capture and analysis
- vegetation surveys conducted on the Fleurieu Peninsula, South Australian Riverland, Mount Lofty Ranges, Gawler Ranges, Murray Mallee area and western New South Wales
- habitat assessment and presence/absence surveys for the management of threatened species, including the Yellow-footed Rock-wallaby, Black-footed Rock-wallaby and White-naped Honeyeater
- vertebrate pest monitoring, including spotlight surveys and sand plots
- land-use and environmental mapping for the Government of South Australia in the south-east, mid-north and on the Yorke Peninsula

- surveys of river red gum and black box tree condition, as well as delivering training courses in tree condition assessment.

OUR SERVICE NODES

EcoKnowledge's aerial and biological surveying services are supported by our other service nodes: conservation planning and management; conceptual, spatial and ecological modelling; decision support systems; and bio information technologies.



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CONCEPTUAL, SPATIAL AND ECOLOGICAL MODELLING
AERIAL AND BIOLOGICAL SURVEYING
DECISION SUPPORT SYSTEMS
BIO INFORMATION TECHNOLOGIES