

Koala conservation heats up: Drones used to thermally detect animals

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Thermal drone image. Credit: Shelby Ryan / Dr Ryan Witt.

Conservation scientists from the University of Newcastle are using heat-detecting drones to capture data on koala populations in Port Stephens LGA.

More than 130 survey sites in Port Stephens LGA will be studied. Over the next few months, each site will be surveyed three consecutive times to accommodate variables and capture an accurate picture of the koala population.

Using the [data](#) from the survey sites, scientists will be able to create a model to better predict koala numbers across vast landscape. The thermal [drone](#) technology is also able to detect other species including wallabies, possums and gliders.

Camouflaged in tall treetops, koalas are notoriously difficult to detect. Traditional methods such as acoustic recordings to identify koala calls or spotlighting with head torches are labor intensive, costly and limited in accuracy.

Research leads, Dr. Ryan Witt and Ph.D. candidate Shelby Ryan from the University of Newcastle said drones are a cheaper and more efficient way to find koalas. In a previous study, Dr. Witt and his team searched a particular location on foot at night with spotlights and found on average one koala every seven hours. When searching the same location using thermal drones, the team found an average of one koala every two hours.

The data will provide clues on how to best manage [koala populations](#). Early data from [surveys](#) so far has revealed a concerning absence of koalas in the Tomaree Peninsula area, with the population localized to just one area.

The research team is inviting private landowners of large blocks in Port Stephens to get in [touch](#) to discuss the potential for their land to be surveyed as part of this study.

Provided by Newcastle University

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