Andrew Colefax, PhD candidate of Southern Cross University and New South Wales Department of Primary Industries.

Fear of shark bites and related public safety concerns has led to a reliance on shark control (culling) programs in many coastal locations. These programs undermine marine conservation efforts by contributing to declining shark populations and incurring other wildlife issues relating to bycatch (turtles, dolphins and rays). To reduce public reliance on traditional shark control methods, an eco-friendly shark management alternative is needed. Unmanned aerial vehicles (UAVs), or drones, have the capability to provide an effective surveillance-based shark management alternative, however, the methodology needs to be further developed. This project will use UAVs to collect georeferenced video data to investigate inshore shark movement and behavioural patterns. The project aims to determine shark movement predictability and define when a shark may be considered hazardous. The data will also be used to test and refine automatic shark recognition software, which will ultimately enhance the detection and reporting of shark sightings, and build public confidence in the eco-friendly shark management alternative.