

# Croc-spotting drone patrol takes off Down Under

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The high-tech drones known as 'croc spotters' were tested along riverbeds, detecting animals as they went

Australia's rugged crocodile country could become safer thanks to world-first drones which were given a test flight Thursday.

The high-tech drones known as "croc spotters" were tested near Cairns, Queensland, patrolling along riverbeds and detecting animals as they went.

Armed with what designers say is a world-first artificial intelligence algorithm, they can identify the reptiles in creeks, rivers and beaches.

Despite the animals' formidable reputation, attacks from freshwater and saltwater crocodiles on humans are relatively rare in Australia.

But five attacks in Queensland's touristic north in 2017-2018, including two fatal attacks, and unusual sightings more than 40 kilometres inland had authorities concerned.

The technological solution came from adapting newly developed shark-spotting drones to detect a different kind of apex predator.

As the pilot operates the drone, the algorithm scans the video and sends an alert back to the pilot if it picks up on a threat below.

Designers say the algorithm is 93 percent accurate, while the naked eye is around 16-19 percent.

Mark Phillips, from drone provider Westpac Little Ripper, said his team spent hundreds of hours feeding data into the technology.



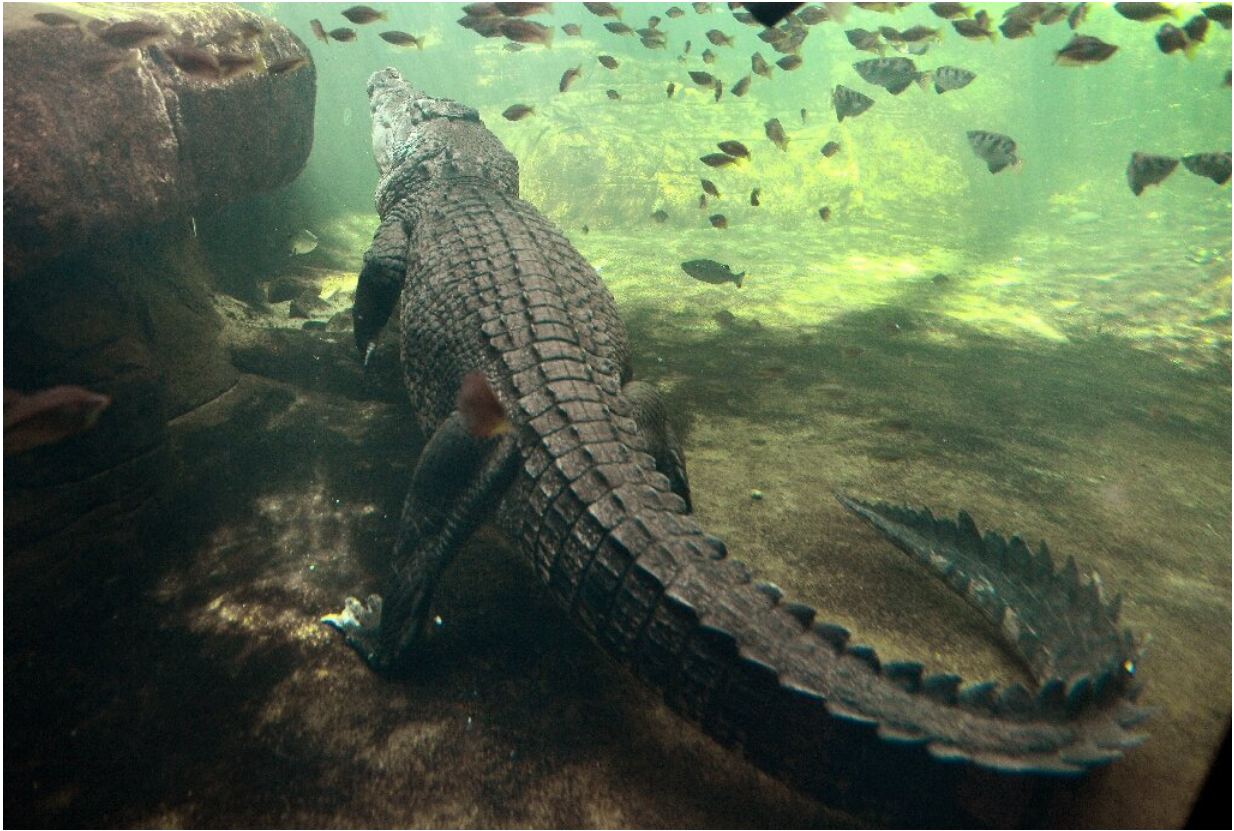
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"A lot of time above crocs, a lot of images fed into the algorithm as it's a learning algorithm which means it then gets better at spotting," he said.

"Different water conditions, sizes, shapes of the crocs, sitting still or swimming, it has to learn everything about them and can then make a better detection."

University of Technology Sydney researcher Nabin Sharma said Queensland authorities are keen to roll the technology out as part of their CrocWise Programme, which informs the public about crocodile populations from a conservation perspective.





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The new technology also allows pilots to relay information instantly to an app, that could be downloaded by the public.

"The difference is the lag, you're virtually getting real-time information over the net, within one second instead of waiting 30 seconds for the information to appear," Phillips said.

There are already more than 100 drones deployed by rescue services across Australia, mostly supporting emergency situations.

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