DNA in dung to reveal first true cassowary count

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Cassowary appears out of rainforest at Daintree Beach. Image: Robert South

(PhysOrg.com) -- In a world first, CSIRO scientists will use an innovative DNA technique to deliver reliable data about north Queensland's Cassowary population and by doing so develop a greater understanding of this endangered species.

In a collaborative study developed by the CSIRO, Environment Protection Agency (EPA) and the Australian Rainforest Foundation (ARF), DNA from Cassowary dung is analysed to identify characteristics that represent individual animals, family groups and range.

“The development of this innovative DNA technique will for the first time in history lead to more accurate population estimates in the Southern Cassowaries remaining habitat,” says CSIRO Sustainable Ecosystems senior research scientist Dr David Westcott.

“Combining the DNA results with other field data, will give us a whole heap of new clues about the birds’ movements, breeding patterns, and numbers.

“Once we’ve collected enough genetic data from the DNA fingerprinting, we’ll be able to create a model of how cassowaries use habitat, and how their populations are structured, which will inform future conservation strategies.”

Wet Tropics Management Authority (WTMA) executive director Andrew Maclean said the Authority strongly supports cassowary conservation and is pleased to have contributed $50,000 to the cassowary DNA project.

“The endangered cassowary is a key rainforest species,” says Mr Maclean.

“Involvement of the community in collecting cassowary DNA in scats will help us monitor the numbers and distribution of cassowary populations in the Mission Beach area and in turn give us an insight into the health of rainforest ecosystems throughout the Wet Tropics.”

CSIRO, Wet Tropics Management Authority, Australian Rainforest Foundation, Environment Protection Agency and Reef and Rainforest Research Council (RRRC) have all supported the project to date and back the new DNA technique that will finally lead to the first accurate counts of the Cassowary.

Provided by CSIRO