

# Researchers build DNA population census of wombats

11 March 2014, by Robyn Mills

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The endangered northern hairy-nosed wombat has been losing a small piece of its hair - all in the name of research, monitoring and conservation of its small population.

University of Adelaide PhD student Lauren White has spent the past six months working on a population census of the wombat with the Queensland Parks and Wildlife Service and the University's Australian Centre for Ancient DNA (ACAD).

She spent two weeks in Queensland collecting hair samples by stringing double-sided sticky tape across the burrow entrances.

"As the wombats enter or exit their burrows overnight they get a small wax and hair is stuck to the tape," says Lauren. "We collected 1,260 hairs and every single one was carefully placed in its own very small tube and transported back to ACAD for DNA analysis."

Located only in Epping Forest National Park in North Queensland, the northern hairy-nosed wombat's numbers dropped to as low as 40 in the 1980s. At the past census in 2010, estimates had increased to 163.

Counting the population, however, is not a simple process because of the wombats' nocturnal nature and largely subterranean lifestyle.

During her Honours year in 2013 Lauren, with supervision by ACAD Deputy Director Associate Professor Jeremy Austin, found nine new genetic markers for the northern hairy-nosed wombat. They then developed a faster and simpler DNA test to be able to identify individuals.

"By collecting hairs over several nights and identifying how many different wombats they belong to and how often they've been 'captured', we can then estimate the proportion of the

population that's likely to have been sampled. This allows a good estimate of the total population size.

"Hopefully, this next [population estimate](#) will continue to show that the northern hairy-nosed wombat [population](#) is growing, giving the green light for more reintroductions and recovery action.

"Using DNA analyses as part of the conservation effort, we hope to help make sure the [wombats](#) are here to stay."

Provided by University of Adelaide

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