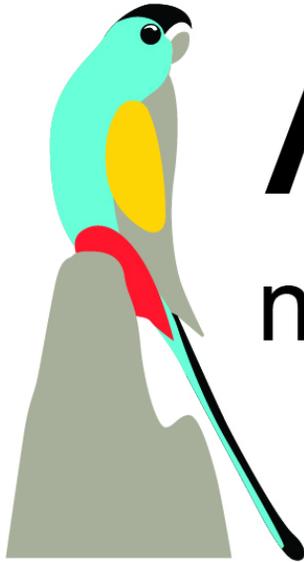


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# Artemis

n a t u r e f u n d

[artemis.org.au](http://artemis.org.au)

## February 2021 newsletter

Welcome to the very first Artemis Nature Fund newsletter.

Last week we began raising awareness of the situation with Golden-shouldered Parrots on Artemis and already we have received some tremendous support. We would like to thank everyone who made donations, and wrote back sharing their concerns and words of encouragement.

Above all, our work on Artemis is about **PRACTICAL, ON-GROUND ACTIONS TO FIX THE PROBLEM FACING THESE PARROTS**. Thanks to previous research, we have a solid foundation upon which we can formulate and deliver these actions, all the while monitoring the response in key indicators that tell

us if we're headed in the right direction. Read on for an update about what's been happening.



The main tasks for 2020 were to finalise the establishment of [the Fund](#), start building the resources we need to do the work, and begin collecting the baseline data we need for strategic and informed habitat restoration. This included re-visiting a series of vegetation monitoring plots what were first established 20 years ago to quantify the changes. The **level of vegetation thickening in many plots was staggering**, and if you haven't already seen the comparison photos, we encourage you to [check them out on the website](#).

One of the main processes impacting on Golden-shouldered Parrots is unnaturally high levels of predation by ambush predators, which are thought to have benefited from vegetation thickening. An important thing we must do is to monitor the effects of our habitat restoration work on the predators themselves. This will allow us to **make informed decisions about our actions**, depending on the response of the predators. We have already written a post on the website about [how we are doing this with feral cats](#). In this newsletter, we thought we'd highlight some of the work we've been doing with two other parrot predators that are potentially even more of a problem than cats: Pied and Black-backed Butcherbirds.

These two species are common native predators on Artemis and have been seen attacking Golden-shouldered Parrots on many occasions. We completely understand that predation *per se* is part of nature, but the problem on Artemis seems to be that vegetation thickening has benefited butcherbirds such that they are now at unnaturally high densities and/or they hunt more effectively. We need to collect information about both species to make sure that our habitat

restoration work is having the outcomes we are looking for. We are using the best science available to us to estimate butcherbird population size, density, home range size and habitat use **before and after management**. This involves colour-banding individual birds with follow-up censuses, and also fitting some individuals with tiny GPS tracking devices.

Already the results of this work is pointing to high numbers of butcherbirds in the pre-management restoration areas. After only a few catching sessions, we have already colour-banded **43 individuals in a only a small part** of the main restoration area, and we estimate there are at least **3-4 times that many** in the same area. What's more, the trial GPS tracking work we did in late December shows surprisingly small home ranges: 8-ha for Pied and only 3-ha for Black-backed!



In a world first, a female Black-backed Butcherbird is fitted with a tiny GPS tracking device. In the inset, you can just make out the tracker (blue arrow) and its antenna (red arrow).

The tracker, which weighs about 1.38 grams, is glued to the back of the bird using a special glue used by vets. The tracker takes a GPS fix every 10 minutes for 2 hours in the morning and 2 hours in the afternoon. After about 6 days - when the battery runs out - we recapture the bird and apply a small amount of liquid that softens the glue and we remove the tag. The bird is then released unharmed, with the whole procedure from capture to release taking about 5 minutes. Afterwards, the data are downloaded from the tag and used to produce maps like the one shown below. This information guides our decision making around habitat restoration, which has all

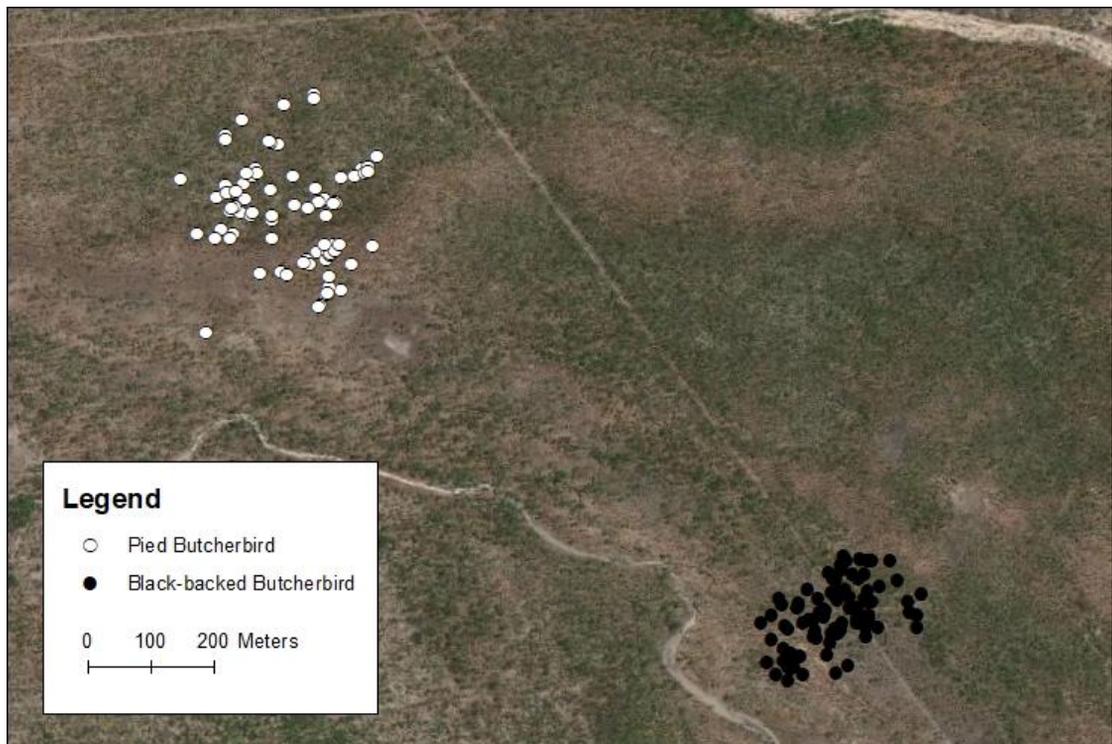
been designed to reduce unnaturally high predation pressure on Golden-shouldered Parrots and other wildlife.

So far we have only tracked one Pied and one Black-backed, so it's too early to draw any conclusions. But it does fit with the other emerging evidence that suggests there is indeed a high density of butcherbirds (such as group living which sometimes relates to habitat saturation). This all supports the idea of high predation pressure in areas which have thickened. Gaining these important insights has only been possible by doing hands-on applied science.

Over the coming months, we will be VERY excited to see more information roll in, particularly once habitat restoration work begins in earnest. Stay tuned for additional updates, which we'll aim to put out every few months.

Until then, please tell your family and friends about the plight of Golden-shouldered Parrots and encourage them to [BECOME A FRIEND OF ARTEMIS](#).

Best wishes,  
Artemis Nature Fund



Our first insights into the movements and habitat use of Pied (white dots) and Black-backed Butcherbirds (black dots). Both species had surprisingly small home-ranges over the ~ 6 day period, which is in keeping with the idea that thickened habitats support more of these predators. This work needs to be repeated with other individuals so we can have more confidence in the result, as well as seeing how they respond to our habitat management.

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