

A push to save Golden-shouldered Parrots on Artemis

Dr Steve Murphy

Many birdwatchers, both in Australia and internationally, will know Artemis as being the best place to see Golden-shouldered Parrots in the wild. For a long time, the parrot population on Artemis has been considered secure – immune from the threats that were operating elsewhere, which lead to the species' dramatic disappearance from places like Silver Plains, near Coen. There, in the 1920s, bird collector William McLennan observed some areas where almost every termite mound (in which the birds nest) bore traces of the birds.

By the 1950s, Golden-shouldered Parrots had disappeared from around Coen. When pioneering parrot researchers Stephen Garnett and Gay Crowley visited the area some 40 years later, they saw thick woodlands where McLennan saw grasslands. Something was seriously wrong.

After spending the last two years working with Artemis owners Tom and Sue Shephard, it is now crystal clear that the population on Artemis is headed down the same path as the Coen population. Most of the areas where Sue, Gay and Stephen studied the parrots 25 years ago have now been abandoned. Sue recently estimated that the population could be as low as 50 birds, and most seem to be reliant on supplementary feeding.



An exquisite male Golden-shouldered Parrot perched on top of his termite mound nest. All indications point to this species disappearing from Artemis if aggressive conservation management is not carried out. Image: Martin Willis www.martinwillisphotographs.com.au

WHAT'S GOING ON AND WHAT TO DO ABOUT IT?

When Sue and I revisited some old vegetation monitoring plots last year, we were confronted with the same symptoms that plagued habitats around Coen: the grasslands and open woodlands had been taken over by shrubs and small trees. The accompanying photo shows the seriousness of the problem. To see more comparison photos, go to our website: [20 years of change on Artemis](#).

The leading theory about why woodland thickening is a problem for Golden-shouldered Parrots relates to predation. It is thought that ambush predators – such as butcherbirds and feral cats – have done well out of thickening: they are now more common and/or they hunt more effectively. Consequently, parrots at all stages of their life cycle are now faced with an unnaturally high level of predation pressure. Exacerbating this is the loss of Black-faced Woodswallows – another open country species that used to perform an important predator sentry function for parrots as they fed on the ground.

Our aim is simple: to secure and restore Golden-shouldered Parrots on Artemis. To do this, we need to enhance the quality of the habitat where the parrots still occur on the southern parts of Artemis. We also need to restore areas that are now abandoned. We will do this using combinations of physical clearing, specialised herbicides and the judicious use of high intensity fire.



Urgent action is required on Artemis to ensure that future generations have the opportunity to see flocks of Golden-shouldered Parrots like this one. Image: Martin Willis www.martinwillisphotographs.com.au



The same photo monitoring site 20 years apart. By 2020 shrubs had invaded and the parrots had moved away or were killed. We are restoring areas like this on Artemis so that parrots can use them again. Image: Artemis Nature Fund

CONSERVATION THROUGH KNOWLEDGE

Our work is centred around applying the most efficient management actions to save Golden-shouldered Parrots on Artemis. But we cannot simply rush out and start cutting down trees. We need to use science to provide feedback that we are on the right track. This includes recording information about the restoration methods: what treatments work best and where? How much do they cost? It also includes monitoring the effects of restoration on the predators themselves: how do feral cats respond? What about butcherbirds? To do this, we are colour-banding butcherbirds so we can calculate population size and density before and after the restoration work is done. We are also collecting detailed information about habitat use and home range size by temporarily fitting tiny GPS trackers to a small number of birds (you can read more about this in our [latest newsletter](#)).



Both Pied and Black-backed Butcherbirds are significant predators of Golden-shouldered Parrots. We are monitoring the effects of habitat restoration on butcherbird ecology using colour-banding and other scientific tools. Image: Patrick Webster.

For feral cats, we are using a similar approach: using GPS tracking to observe what they do before and after **restoration. It's possible that restoration might actually encourage cats into areas.** If this happens, we need to know about it. And before you think these cats are getting a free pass, our permit from Biosecurity Queensland demands that we euthanize every cat we collar at the end of the study.

As you can see, carefully considered science is essential for us to monitor the things we are most interested in. And most of all, we are interested in the parrots themselves. In the same way that the Orange-bellied Parrot Recovery Program is using colour-banding to gather the detailed information they need to guide their management actions, we must do the same at Artemis. So we are colour-banding Golden-shouldered Parrots on Artemis to answer questions like: exactly how many parrots are left? Does individual survival increase after habitat restoration? What proportion of the population is reliant on supplementary feeding? How far do they come to feed? How can we use supplementary feeding to encourage recolonisation of areas that are abandoned but restored?

AGENCY PERMITS, APPROVALS AND SUPPORT

People in conservation generally don't like using **invasive scientific methods unless it's absolutely necessary, and we're no exception. It's worth highlighting that the entire program on Artemis has been through a stringent process of consideration and approval involving multiple agencies.** First, the situation on Artemis and what should be done about it was discussed by the Golden-shouldered Parrot Recovery Team. This team is forging a new model for threatened species recovery, in that it is being led by Traditional Owners, and integrates traditional ecological knowledge with contemporary science to define the culturally appropriate actions to protect and

enhance Golden-shouldered Parrots and their habitats **right throughout the species' range. Following this consultation and approval, the Artemis work was considered by:**

- two Animal Ethics Approvals at the University of Queensland (one for butcherbirds and cats, and an entirely separate one for capturing, handling and banding the parrots);
- three federal government permits (a mist-netting and banding licence issued to individuals only after extensive training, and two separate project-specific permits for mist netting colour banding);
- two permits from the Queensland Department of Environment and Science;
- a biosecurity permit from the Queensland Department of Agriculture and Fisheries for releasing feral cats;
- and finally, a permit from the Department of Natural Resources, Mine and Energy for carrying out the clearing work, which comes **under the state's Vegetation Management Act.**



Male and female Golden-shouldered Parrot, photographed at Artemis Station by John Stirling, BirdLife Photography.

We understand that not everyone might like to see a colour-banded parrot when they next go birdwatching at Artemis, or agree with the idea of releasing feral **cats, even if it's only temporary. And we, nor the other agencies that issue permits for such work, arrived at the decisions to do so lightly. But if we don't fix the ecological problems now using the best tools available to us, there may not be any Artemis parrots left to see at all within a decade.**

So if you visit Artemis in the coming years and see colour-banded parrots or butcherbirds, please remember the reasons why they are banded. It is incumbent upon us to do everything we can to reverse the decline of these birds. And we must do this using every tool that is available to us, to make sure we are making the right decisions. If you want to find out more and join us on our mission to save these birds, please visit www.artemis.org.au.



Artemis Nature Fund President and station owner Sue Shephard releases a colour-banded Golden-shouldered Parrot, December 2020.