Gouldian Finch Study North Queensland - Update No. 9, July 2023

Fig 1 - A male Gouldian in resplendent breeding plumage, April 2023.

One heck of a Wet!

The 2022-23 Wet delivered rainfall totals up to twice the average wet season average at some of the properties we visit. Although we couldn't experience all this first-hand (I'm very happily a wuss when it comes to river crossings!), it did make us appreciate how fortunate we have been with fairly easy access in previous years. Seeing and documenting all those different wet season foods (sedges, shrub seeds etc) and bird concentrations isn't easy in a good wet!

Additionally, 2023 to date has been very instructive in seeing some of the outcomes of all this rain, including what habitats are used, given the dense grasses and weeds (and some woody thickening) going on, or whether early storm burns had ameliorated some of these problems. Equally, it was going

to be intriguing to learn how the associated abundant grass seeding might affect breeding ecology, e.g., the timing and duration of the Gouldian breeding season.

Properties

To date, ten properties have been surveyed during this early 2023 dry, including three new ones and three others resurveyed for the first time since 2020. The ten properties have revealed a wide (and very helpful) range of fire, cattle and ferals management approaches, from zero to a lot! I am following up with each of the owners with a private discussion paper as some of them are interested in helping out the biota where they can. These papers cover geology, topography, vegetation and grasses, grazing regime, fire regime, ferals, observations on finches and other indicators, and opportunities.

Gouldian populations

We still have two healthy population of Gouldians. However, these core populations are more widely and patchily dispersed than in previous years, with birds being found on some additional properties for the first time in decades.

A burning issue

Dropping encounter rates of Gouldians and woodies are occurring on two properties that no longer undertake storm burns (see Fig 2 example below). These properties are subsequently suffering rank grassy and weed issues, and in places are well on their way to woody thickening Meanwhile, sites being colonised by Gouldians have mosaic burning in place to varying degrees, including storm and early dry season burns, and some also operate rotational grazing (see Fig 3 example below).

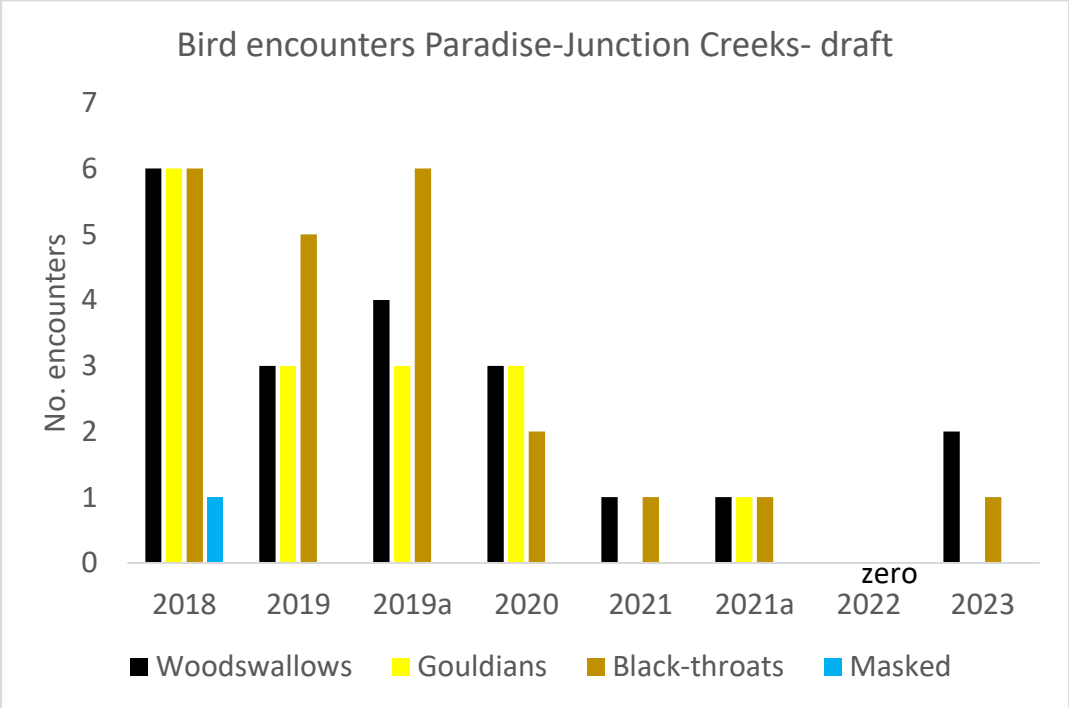

Fig 2 - Example of finch and woodswallow flock encounters in a 5 km hotspot, 7-12 years post fire, 2018-23.

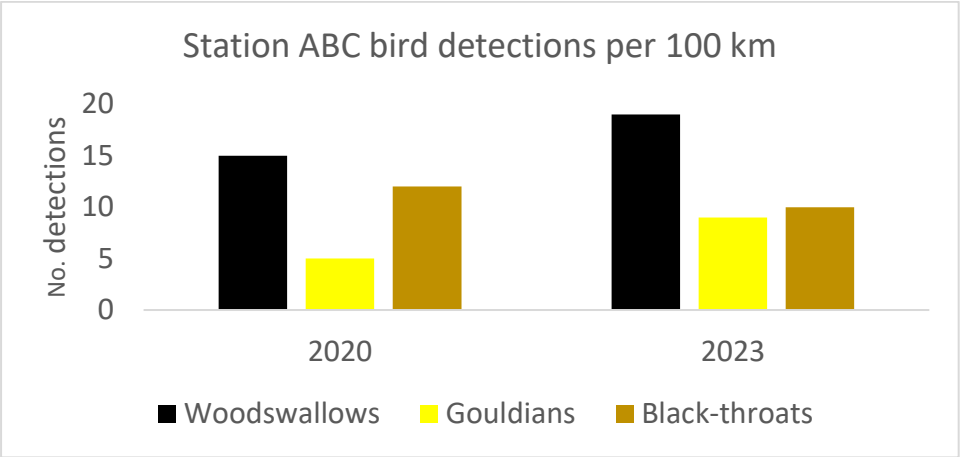

Fig 3 – Counts undertaken 3 years apart on a mosaic burn/grazing rotation property.

Feeding habitat

Favoured Gouldian dry season feeding areas are those open sites with plenty of Firegrass and typically 4-5 other grass species. Although mosaic burn areas seem to be important; birds can get by in some unburnt areas where there are eroded patches of gravels (slates, quartz sands, etc) that allow Firegrass growth and also provide safe access for finches. These open foraging areas can also occur along creeks, fencelines, firebreaks, roads, etc. However, it's been noticeable this year how quickly post-breeders jumped to a site of "cool" burns, feasting on toasted seeds, as after storm burns.

Breeding

Despite some early grass seeding, onset of breeding by Gouldians this year has been no earlier than usual. It will, however, be interesting to test duration of breeding season this year.

Dingoes v Feral Cats

The different dingo management undertaken at properties currently being colonized by Gouldians will be useful in providing insights into whether the presence of dingoes is necessary or helpful. Dingoes may be inhibiting feral cats and/or their activity patterns. We have camera traps on these properties which will help ascertain cat/dingo abundance and activity patterns.

Engaging Sciences Grant

Lately, I did some follow up on our Queensland Government's Engaging Science Grant (ESG) undertaken by Pippy Cannon, Dr Pam Schultz and myself last year – the video developed by Forsayth School pupils and teacher Krystyna Artemiew is wonderful and can be seen on the NQNHG website or at https://vimeo.com/824632439

I also caught up with some more of the Tagalaka and Yalanji rangers (see pics below) who were able to use the woodswallow method to track down plenty of targets on their country.

We are grant-free at the moment, but fortunately have our rich benefactors to cover costs of the essential monitoring. ;-)

Fig 2a - Tagalaka rangers Chelsea Wyles and Mark Owens with ranger Jackson Allen, inspecting an area frequented by six species of finches. Gravelly clearings like this one in an otherwise sea of rank grass, provide Firegrass habitat and feeding opportunities for Gouldians.

Fig 2b – Yalanji team members Chiveree and Alfred find a woodswallow nest in typical stump nest-site.

Some ongoing concerns

- Property owners in the Einasleigh Uplands Bioregion and elsewhere are increasingly chasing carbon credits, i.e., undertaking cool burns only. Some have even switched to no burns at all. The cool/no burn properties already have rank grass and weed issues and dome woody thickening. No doubt some properties will be in for a rude shock especially in El Nino years. Catastrophic fire can destroy old growth trees and stumps, important for many fauna species
- Some downward trends in detection rates of the woodswallow-finch etc association are evident in areas of rank growth and/or woody thickening.
- White-cheeked Masked Finches appear to be declining in this scenario.
- We definitely need conservation benefits to be recognized as some owners and managers are genuinely wanting to help biodiversity, especially if they can be recompensed.
- Ongoing captive Gouldian releases – any survivors will bring genetic and disease implications for the wild population.

Focus on our surveyors – Kerry and Jeff Watson

Kerry and Jeff are keen birders and bushwalkers who get out and about in the local region as often as they can. Kerry is a primary school teacher and former speech pathologist. She has a long-term interest in all things relating to the natural world. “I would be out looking and listening for birds, and just enjoying being in nature anyway, so a project like this enables me to pursue that interest while making a contribution to the knowledge base on these wonderful little birds”.

Jeff has worked as a pest scout with local farmers for many years, which entails making counts of pest and beneficial insects in crops. He is very happy to make the change from recording creatures seen

under a hand lens to ones that are best viewed using binoculars! “Going on these trips has greatly improved my recognition of bush birds and their calls. It has been amazing to see the close association between woodswallows and Gouldians. Finding Gouldians by searching for their more visible, and audible (I can’t hear GF calls!) associates has been a revelation for me. It has also been a great bonus to see a diverse range of landscapes that otherwise cannot be visited because they are privately held. Meeting the other volunteers has been a highlight (as has Ray’s “no frills” camping style, and there’s no beating Ray at packing up in the morning :-)

Jeff using the high ground to spot birds.

“Normally it’s just a trickle, shall we ask Ray to give it a go!?”

Upcoming targeted surveys

Some dates for upcoming surveys and other events are:
Last weekend of July-extending into early August – surveys north of the Mitchell River
Last weekend August – surveys in support of genetics project
Later survey dates TBD – just let me know if interested
Day and night talks presenting some of our findings at Kuranda in late October/early November, dates and times TBD
Camera footage to check later this year, if you would prefer a desk job!

See further background information including finch calls and the Forsayth School video on the NQ Natural History Group website www.nqnhg.org

We respectfully acknowledge the traditional owners and custodians on this country where we live and carry out our studies.

Ray Pierce NQNHG 13 July 2023
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