

Woodlands on the Wing

Issue 18 Autumn 2019

The Great Western Woodlands in Western Australia is the world's largest remaining temperate woodland. The Birds of the Great Western Woodlands (GWW) Project aims to assess distribution, population status, movements and ecology of the bird species there, to better inform the conservation and management of this significant region. The Great Western Woodlands Committee (BirdLife WA) oversees the project, which is now in its eighth year, 2019. The first four years (2012 to 2015) were funded by a partnership between BirdLife Australia and The Nature Conservancy

FROM THE CHAIR

A huge amount of effort by the GWW team and bird surveyors has gone into the 2018 season. Without this commitment the story of the bird population's wellbeing would go unnoticed by the Committee and Government. Thank you all.

We are arranging to have a Sundowner (including some prizes) to thank all GWW volunteers and Birdlife WA staff on Friday 8th March at 5.30pm to 7.30pm at the Ecology Centre, Perry Lakes Drive.

We are also planning another Credo Station training session from the 10th to the 13th of May. More details in WA eNews and WA Bird Notes soon.

A brief summary of achievements for 2018:

20 surveys were carried out by a total of 38 individual surveyors (some accompanied by partners) which covered eight of the nine survey areas. Thirteen more informal surveys were carried out by private parties.

The GWW Raffle was a great success and produced a profit of \$2,424 after expenses. Thank you to all those many people who sold and bought tickets.

Winners were Jan Waterman from Albany with ticket number 0326 which scooped the first prize of \$4,000; and Michi Maier from Leederville who won the second prize of \$500. Congratulations.

The Credo Station training course organised by Tegan Douglas and assisted by Mark Henryon and Libby McGill in September was a resounding success. Fifteen participants attended the course which was enjoyed by all. Thank you Tegan - you are a champion.

We were successful in winning an ABEF grant of \$7,000 to carry out a trend analysis of the bird data collected so far. Many thanks to Liz Fox for preparing the application. The results will be presented by Liz at the Sundowner on the 8th March.

Transline Spring Survey 2018

by Jan and Ron with Lorraine and Richard, Graham, Penny and Kim



Train near survey site
Photo by Lorraine Chyne

Every Great Western Woodlands survey is a great adventure and this being our fifth time on the transline we were immediately aware of the increased mining traffic. No less than three new ventures are operating since our last survey. The first survey we did we only counted five vehicles in five days. Now one has to be aware of what is coming up behind in the dust. Keeping the radio on channel 40 is imperative.

As before we noted that when trains pass the birds are quiet for around ten minutes and now with extra traffic there is another noise factor. Will the birds move a bit further from the 100 metres from the road?



Major Mitchell's Cockatoo
Photo by Richard Chyne

Over previous surveys we had come to expect certain species at some sites such as the scrubby Blue Bush, site 18, the only site north of the transline road was where we might see a **White-winged Fairy-wren**. Not one but three **Wedge-tailed Eagles** and five **Australian Ravens** and a dead kangaroo greeted us instead. All other species keeping their distance. **Chestnut Quail-thrush** were discovered by one survey group, such a shy species and always a thrill to find.

The first nights camp at Cardunia Rocks was an adventure when on our way in we were informed a semi-trailer was on its way out carrying earth from the old quarry. The birds however did not seem worried with numerous colonies of **White-browed Babblers** and even two grebes on the dam.

This spring the country was drier even though we were a little earlier. Further towards Xanthus however there was a wonderful "avenue" of flowering eucalypts including *E. woodwardii*, the extravagantly flowering Lemon Mallee, home of many **Red Wattle-birds** that day. We seemed to be a week or two early for most of the flowering we have seen in the past.

The campsite near Site 13 was memorable for the **Southern Boobook** serenade we had for over an hour. Also for the bewildered mining truck which slowed almost to a standstill when he saw four vehicles camped - he was carrying explosives. This site also had a **Yellow-throated Miner** colony and an **Australian Magpie** colony which we speculated may have been established when Xanthus was a bigger settlement. We saw very few of either species elsewhere along the road.

With seven surveyors the sites were leapfrogged so the whole survey was completed in just two and a half days. In hindsight we would have preferred to do all the sites, as we had previously - one gets attached to certain sites.

However, once the survey was completed the group ventured onto Naretha, but that's another story.



Transline 2018 - Richard, Graham, Ron, Kim, Jan & Penny
Photo by Lorraine Chyne

Bird List

Swans, Ducks, Grebes
Herons, Ibis, Spoonbills
Birds of Prey
Pigeons, Doves
Cockatoos, Parrots
Night Birds
Treecreepers
Wrens, Pardalotes
Scrubwrens, Allies
Honeyeaters

Australasian Grebe
White-faced Heron
Wedge-tailed Eagle, Brown Falcon, Nankeen Kestrel
Common Bronzewing, Crested Pigeon
Purple-crowned Lorikeet, Regent Parrot, Australian Ringneck
Southern Boobook, Australian Owlet-nightjar
Rufous Treecreeper
Splendid Fairy-wren, Spotted Pardalote, Striated Pardalote
Weebill, Inland Thornbill, Chestnut-rumped Thornbill, Yellow-rumped Thornbill
Brown Honeyeater, Singing Honeyeater, White-eared Honeyeater, Yellow-plumed Honeyeater, Yellow-throated Miner, Spiny-cheeked Honeyeater, Red Wattlebird
Jacky Winter, Red-capped Robin
White-browed Babbler
Chestnut Quail-thrush, Varied Sittella
Rufous Whistler, Grey Shrike-thrush, Crested Bellbird
Magpie-lark
Black-faced Cuckoo-shrike
Dusky Woodswallow
Grey Currawong, Pied Butcherbird, Grey Butcherbird, Australian Magpie
Australian Raven
Australasian Pipit
Zebra Finch
Welcome Swallow, Tree Martin

Chats, Robins
Babblers
Quail-thrush, Allies
Whistlers, Shrike-thrush
Magpie-lark, Flycatchers
Cuckoo-shrikes
Woodswallows
Magpie, Butcherbirds
Ravens
Bowerbirds, Pipit
Finches
Swallows

Extension to Naretha Bore

Once Site 16 near Kitchener siding was completed we commenced the journey to Naretha Bore. Very soon the vegetation changed from the woodlands to low sparse Mulga scrub reminiscent of Rangelands landscape. On reaching the Naretha Bore siding with the fierce wind force we camped nestled into the Mulga scrub.

With sunset approaching we drove to the bore hoping to see **Naretha Parrots** come in to drink. After several hours sitting low in the cold wind watching **Galahs, Mulga Parrots** and **Crested Pigeons** we gave up. Another try in the morning failed to find **Naretha Parrots** but there was a lovely selection of other birds.

A short side trip to a gully by the railway line only provided the opportunity for Ron and I to nearly get run over by a train. Do not stand on the rail line facing in one direction. Those trains are not as noisy as one thinks. But we did see how high Graham and Kim could jump alerting us to the potential disaster.

Disappointed in not seeing parrots we started back with some distance between vehicles. Approaching Kitchener suddenly seven interesting looking parrots flew across the road in front of the Chyne's vehicle. Along with Graham we turned around and found two of the parrots in a tree close to the road. They were joined by **Mulga Parrots** which supplied a great size comparison for us to confirm we had **Naretha Parrots**. Unfortunately the other vehicles were too far along the road to call back.

It was certainly worth the extra distance and time with such a find.

Thank you to Ron and Jan for your knowledge of transline camping sites and arranging our access to Naretha Bore. For our first timers Penny and Kim we all saw them demonstrate their bird knowledge on their first GWW survey. And Graham shared his great knowledge of WA trees.

Note – anyone wanting to visit the Bore will need permission from the station owners. Contact GWW for contact details.

Bird List

Emu, Mound-builders, Quail	Emu
Birds of Prey	Wedge-tailed Eagle, Nankeen Kestrel
Pigeons, Doves	Crested Pigeon
Cockatoos, Parrots	Galah, Mulga Parrot, Blue Bonnet
Wrens, Pardalotes	White-winged Fairy-wren
Scrubwrens, Allies	Yellow-rumped Thornbill
Honeyeaters	Singing Honeyeater
Chats, Robins	Crimson Chat
Babblers	White-browed Babbler
Whistlers, Shrike-thrush	Grey Shrike-thrush, Crested Bellbird
Magpie-lark, Flycatchers	Magpie-lark, Willy Wagtail
Woodswallows	Black-faced Woodswallow
Magpie, Butcherbirds	Grey Butcherbird
Ravens	Australian Raven
Bowerbirds, Pipit	Australian Pipit
Finches	Zebra Finch
Swallows	Welcome Swallow

Species in Focus

WHITE-BROWED BABBLER

by Tegan Douglas

Pomatostomus superciliosus

White-browed Babblers are year-round residents of the Great Western Woodlands, living in gregarious family groups in woodlands and shrublands throughout much of the GWW. They are mostly insectivorous, but sometimes eat small vertebrates too, which they find by probing bark and leaf litter with their strong, curved bill. Babblers move busily through the understorey, but almost always have a sentinel on alert. When a potential threat is spotted, the sentinel's alarm calls will cause the rest of the group to retreat to cover, which they do promptly and noisily. It is often difficult to view the entire group at once, and there are frequently more birds present in each family than the casual observer sees.

Observers are usually tipped off to the presence of babblers in two ways – either by hearing the cacophony of cat-like



White-browed Babbler (*Pomatostomus superciliosus*)
Photo by Chris Tzaros

growls, churrs and whistles made by the noisy gang, or by spotting their soccer ball-sized domed roost nests near the tops of shrubs and trees. Each evening, babblers roost communally in these nests, piling into them like clowns into a Mini. The family group builds and maintains a number of these structures in their home territory, constructing them from sticks and lining them with fine twigs and grass. A similar nest will also be used for breeding. Late in the afternoon they can be observed communally dust-bathing before going into these roost nests.

White-browed Babblers are recorded to have declined in the adjacent wheatbelt, although they appear to be holding stable in the GWW. Living in fixed territories year-round makes it difficult for them to persist in fragmented landscapes, as they dislike crossing open ground, so have trouble dispersing from, and recolonising, isolated patches of suitable habitat. Their ground-foraging habits also put them at risk of predation from cats and foxes, particularly where vegetation cover is sparse.

REPTILES OF THE GREAT WESTERN WOODLANDS

by John Graff

In addition to birds, the Great Western Woodlands is also home to a diverse reptile assemblage, including over 130 species. Some of these, particularly fossorial species – those that spend a lot of time underground – are unlikely to be encountered without dedicated survey effort. However, a variety of species can be readily encountered while out and about in the GWW. The best time for viewing diurnal reptiles is on warm, sunny days, particularly in spring, while nocturnal species are most active on warm nights, particularly when there is some moisture or humidity in the air.

Lizards like dragons (Agamidae), skinks (Scincidae), and monitors (Varanidae), are largely diurnal and larger species can be quite conspicuous. These include some well-known species like Bobtail (*Tiliqua rugosa*) and Western Blue-tongue (*Tiliqua occipitalis*) skinks, and the Sand Goanna (*Varanus gouldii*). The Crested Dragon (*Ctenophorus cristatus*) is one of the most commonly encountered reptiles in the woodlands – relatively large dragons with a ringed tail, they are fast movers and use their speed to maintain a safe distance when encountered. Western Bearded Dragons (*Pogona minor*) also occur, and there's the chance of encountering the unique Thorny Devil (*Moloch horridus*).



Thorny Devil (*Moloch horridus*)
Photo by Jordan Vos

Smaller skink species are less readily observed, with rustling in the leaf litter often the most obvious indication of their presence. However, quiet and patient observation will often yield results. Common species include the Barred Wedgesnout Ctenotus (*Ctenotus schomburgkii*), Woodland Morethia (*Morethia butleri*), and Buchanan's Snake-eyed Skink (*Cryptoblepharus buchananii*), which spends much of its time on living or dead timber and rock faces, and should also be familiar to many people from their backyards!

Spotlighting at night, particularly on warmer nights, can reveal a different suite of species. The most commonly encountered are usually geckos, including both arboreal and terrestrial species. Common arboreal species in the GWW include the Reticulated Velvet Gecko (*Hesperoedura reticulata*), which is grey and occurs mostly on smooth-barked eucalypts (often high in the canopy), and the Variegated Dtella (*Gehyra variegata*), which is also greyish, with mixed spots and lines on the back. Common terrestrial species include Bynoe's Gecko (*Heteronotia binoei*), identifiable by its very rough-skinned appearance, and Main's Ground Gecko (*Lucasium maini*), which is reddish with obvious pale blotching.



Sand Goanna (*Varanus gouldii*)
Photo by Jordan Vos

Many snake species are also nocturnal, particularly pythons such as the Carpet Python (*Morelia spilota imbricata*) and smaller species such as burrowing snakes. Larger venomous snakes are often also active during the day but can be seen active at night in hot weather. The most common large venomous species in the GWW include the Dugite (*Pseudonaja affinis*), the similar-looking Western Brown Snake or Gwardar (*Pseudonaja mengdeni*), and the well-known Mulga Snake (*Pseudechis australis*). The Mulga Snake is more commonly known as King Brown Snake, but this name is misleading as the species is actually a member of the 'black snake' genus. The GWW is also home to the unique Lake Cronin Snake (*Paroplocephalus atriceps*), a small elapid that is only known from the vicinity of Lake Cronin, Fraser Range and nearby areas.

'Legless lizards', or pygopods, are commonly mistaken for

snakes, but are non-venomous and actually most closely related to geckos. They can be identified by a range of features, including broad, fleshy tongues (slender and forked in snakes), differences in scalation. However, it is best to avoid getting too close to, or handling, anything snake-like unless you are experienced and certain of your identification. Most pygopods are rarely seen, but some species such as Burton's Snake-lizard (*Lialis burtonis*) and the Common Scaly-foot (*Pygopus lepidopodus*) may be encountered relatively regularly in the GWW.

This discussion has only briefly touched on the range of reptiles that can be encountered in the GWW. Keep your eyes peeled on your next visit and you may find some of the species listed here, and plenty more. Several excellent resources are available to assist with reptile identification – a few good recommendations are included below for those who are interested.

Recommended reptile identification resources

Field Guide

Wilson S. and Swan G. (2017). A Complete Guide to Reptiles of Australia 5th Edition. New Holland Publishers.

The most comprehensive and taxonomically up-to-date field guide

Bush B., Maryan B., Browne-Cooper R. and Robinson D. (2007). Reptiles and Frogs in the Bush: Southwestern Australia. University of Western Australia Press.

Less comprehensive and less up-to-date, but covers only southwestern Australia so more accessible for beginners

Reference

Cogger, H. (2014). Reptiles and Amphibians of Australia. CSIRO Publishing

Excellent reference text but too large for field use

Online

Macdonald, S. (2018). AROD.com.au – The Australian Reptile Online Database. Available at <http://www.rod.com.au/rod/>

The best source for the most up-to-date taxonomy

Great Western Woodlands (GWW), Credo Station 'Bird ID and Survey Skills Course' by Colma Keating, Grecian Sandwell and Lauren Gilson

14-17 September 2018

Led by BirdLife's Dr Tegan Douglas with GWW assistance from Mark Henryon and Libby McGill, the first GWW Bird ID and Survey Skills Course was held at Credo Station, 75 km north of Coolgardie. Credo is an ex-pastoral station now managed for conservation by the Department of Biodiversity, Conservation and Attractions (DBCA). Many of us were surprised to see stock still on the station. However, it was

explained that they were escapees from adjoining properties and that at times DBCA repaired the fences, rounded the stock up, and trucked them off the property.

The 15 participants came to Credo from Donnybrook and across the Perth metro region, with thankfully only one vehicle breakdown near the Wooroloo Prison. Due to the quick coordination by Tegan, Libby was picked up by Mark as he passed by but, unfortunately, GWW Committee Chair Alasdair Bulloch had to tend to his vehicle and was not able to join us in the field.

Accommodation was either camping, a bunk in the shearers' quarters, or a 'glam' bedroom with ensuite in the relocated mining dongas, offering a wide verandah overlooking the firepit and homestead gardens. We were welcomed by Credo's caretaker who also managed the information centre and museum. The station's facilities included two kitchens for self-catering and a large room set up as the research centre where we met, ate, drank and had some bird identification workshop sessions.

Landscapes and habitats that we were lucky to explore included tall Salmon Gum woodland over low bluebush or saltbush shrublands, large granite outcrops (tors) surrounded by tall mulga shrublands, lakes with open water (Rowles Lagoon) edged with sedges, paperbarks, eucalypts and sheoaks, and undulating sand dunes with low open saltbush/bluebush shrubland with emergent sheoaks.



One of the wooded survey locations is an ecosystem 'SuperSite' managed by the Terrestrial Ecosystems Research Network (TERN). The station's buildings, dams, dumpsites and gardens near the homestead provided habitat for birds such as **Black-tailed Native-hen, Black-fronted Dotterel, Australian Ringneck, Australian Owllet-nightjar, White-winged Fairy-wren, Yellow-throated Miner, Spiny-cheeked Honeyeater, Western Bowerbird** and **Zebra Finch**. Away from the homestead, birds included **Emu, Black Swan, Hardhead, Hoary-headed Grebe, Collared Sparrowhawk, Peregrine Falcon, Purple-crowned Lorikeet, Regent Parrot, Mulga Parrot, Red-backed Kingfisher, Rufous Treecreeper, Weebill, Chestnut Quail-thrush, Gilbert's Whistler, Ground Cuckoo-shrike, Little Crow** and **White-backed Swallow**. Night spotting produced a **Tawny Frogmouth**.

Bird identification techniques that we explored included:

- using simple drawings to quickly record the key features of the bird;
- ways to record the birdsong that is meaningful such as pitch, rhythm, sections, volume, quality and making words/sentences (mnemonics) to recall the cadence of the call;
- a raptor ID presentation by Tegan with some clever ways of focusing on the pairs that are difficult to tell apart; and
- birding together in the real world, because more eyes and ears means greater detection and we all learn from each other's observational strengths, be they aural, visual, or behavioural.

Yet again, the value of accompanying very experienced observers cannot be underestimated. Mark's oft given advice that "relax, take your time, practice makes better, just as it does on the footy field, in the kitchen or behind a camera" helped us to do just that, relax and not get flustered as you learn about the sights, sounds and gizz of new birds. We all learnt much from both the course leaders and fellow participants.

Being able to get a feel of the different ID tools (books and electronic apps) and equipment was also great. A few more binocular harnesses will have been purchased by now as well as some new reference books!



Group
Photo by Libby McGill

Whilst we were also introduced to the technique of describing the behaviour of the bird/s as a way of identification, the birds of Credo did not want to participate. We attempted the exercise twice to no avail. Thus, some homework awaits for when next observing birds!

It was also great to have the company, enthusiasm and ability of PhD students Claire Greenwell (Murdoch) and Lauren Gilson (Curtin) along with Southwest Black Cockatoo Project Coordinator Rebecca Boyland (BirdLife) and bird surveyor Merryn Pryor (CCWA). An impromptu 'picnic table post mortem' of a Whistling Kite was led by Dr Tegan, ably assisted by TA Claire. We learnt about determining age from size, signs of moulting, and age marks along feathers. Nearby we also learnt about owl feathers from Lauren and how their construction helps them be silent as they fly. It

is refreshing to know that our young scientists, including Tegan and Mark are not only capable, but highly interested in our natural world and generous in sharing their knowledge.

At the start of the weekend, Tegan invited us to 'guesstimate' how many birds we would collectively identify over the weekend. With our official tally of 73, Mandy won the prize, a bottle of red. However, things got even better as the group split up to survey more GWW sites on our way out, and another three birds were added to the weekend's list.

From comments received from participants, the weekend was a mix of the new, the refreshing, and/or the consolidating of bird identification, information and survey in the stunning bushland of Credo with a group of like-minded and enthusiastic people whose company was much enjoyed. Learning some of the science behind survey design for birds, how to access and use the Birdata App and for some, getting to understand the mysteries of a personal GPS were very helpful.

To quote our leader Tegan "Thank you all for a wonderful weekend—it was great to be out in such an exquisite location with such a friendly, enthusiastic bunch of people. I hope you all feel that you got out of the weekend what you intended to—a feel for the Great Western Woodlands, some new birds, some new strategies for identifying birds, exploring some new ground, meeting some new people! You definitely all added something fantastic to the trip—a wealth of knowledge, stories, and camaraderie—so thank you!"

We wish everyone enjoyment as they continue to 'bird,' especially Mandy and Steve as they take on their new roles as Eyre Bird Observatory Wardens in December. We look forward to hearing their tales via Western Australian Bird Notes. We also thank all those both in BirdLife and beyond for your efforts in highlighting the importance of the Great Western Woodlands and the need for good conservation management.

Helena and Aurora Range Surveys

Mark Henryon

October 17-22 2018



Brian Moyle
Photo by Mark Henryon

What a way to spend a week! Carrying out bird surveys at the wonderful Helena and Aurora Range and exploring another five ironstone ranges in the Yilgarn region. I recorded 77 bird species – 71 of those within the survey area at Helena and Aurora Range.

I was fortunate to do part of the trip with Brian Moyle from The Wildflower Society. Brian has advocated for the protection of the ironstone ranges in the Yilgarn for 20 years. He was heavily involved in the campaign that led to Environment Minister Stephen Dawson and the McGovern Government saying 'no' to mining at the Helena and Aurora Range. I think Brian deserves national recognition for his efforts.

We drove the Bullfinch-Evanston Road taking in Mt Jackson Range, Windarling Range, Yokradine Hills, Die Hardy Range; headed east to Mt Manning Range; and south to Helena and Aurora Range via Kurrajong Rockole.

I enjoyed finding **Square-tailed Kite, Peregrine Falcon, Spotted Nightjar, Barn Owl, Major Mitchell's Cockatoo, Black and Pied Honeyeaters, Crimson Chat, Varied Sittella, Chestnut Quail-thrush, Masked and Little Woodswallows, and Hooded Robin.**

There were other observations that I think are worthwhile sharing:

(i) I have noticed some repeatability at the survey sites. This was the fourth time I have surveyed the Helena and Aurora Range. Each time, I have recorded similar species and numbers at each site. Of course, this is anecdotal and applies largely to resident species, but it does partly justify the survey methods and implies that the health of the woodlands has remained stable over the time that I have surveyed the area.

(ii) I did not observe many birds that benefit from human disturbance in the woodlands around Helena and Aurora Range: **Galah, Yellow-throated Miner, Australian Raven, Crows, Magpie-lark, Grey Butcherbird, Nankeen Kestrel, and Crested Pigeon.** These species were common at Koolyanknobbing and in the wheatbelt adjacent to the woodlands. I hope that indicates that the woodlands around Helena and Aurora Range are functioning well.

(iii) There was surprisingly little flower and few honeyeaters on the sandplains – presumably because of a dry winter. The sandplains were in full bloom in spring 2016.

(iv) The track at south-eastern end of survey area has deteriorated. It is not bad, it's just a little worn. There are also several tracks in the area; it took me some time to find the right track and the survey sites. This has prompted Lorraine Chyne, Libby McGill, and I to update the 'information pack' for Helena and Aurora Range – including a map with GPS points – making it easy for future surveyors to find each site.

Visiting the Helena and Aurora Range is a joy for me. There is not much that beats camping by the range in Salmon-Gum woodlands; standing on the range's peak, gazing across the never-ending vista of woodlands that rise from the red earth; exploring spectacular ironstone formations: caves, cliffs, towers, and tunnels; and discovering plants that grow and flower, as if by magic, from rock crevices – some of which are found nowhere else in the world.

Future generations will also be able to enjoy the Helena and Aurora Range when the McGovern Government puts the range in safe conservation tenure. Minister Dawson told me when he was at BirdLife WA's Floreat office on January 23 to hand over a LotteryWest grant that work was underway behind the scenes to create a national park at Helena and Aurora Range. This would be just reward for the long campaign to protect the Helena and Aurora Range.

Thanks to Brian, my 'ironstone-range experience' in the Yilgarn now goes far beyond the Helena and Aurora Range. I found all of the ranges to be special. They each have their own unique topography, landform features, and vegetation. Brian also showed me places of interest on the drive between the ranges: gnammas, soaks, outcrops, wells, sacred sites, sandplains, and abandoned mines. The region is certainly worth a visit.

I am already looking forward to my next survey at the Helena and Aurora Range and continuing to explore the other ironstone ranges in the Yilgarn.



Brian Moyle
Photo by Mark Henryon

Spring Surveys 2018

Karroun Hill

September 24 – 27 2018

Most of us travelled on from a very successful campout on nearby Remlap Station. We set up camp east of Bimbijy Road, next to the only track which runs into the centre of the reserve, area of large picturesque Salmon Gums. At the evening briefing we split into three groups, allocating the surveys to each group.

Next morning in brilliant sunshine we carried out our first set of assigned surveys, and everyone had finished by about 11 am. The northern most points were in impenetrable acacia regrowth so were limited to listening surveys from the road and the regular drainage ditches. In other areas it was a pleasure to wander through the open Salmon Gum forest counting birds. That afternoon most of us walked up Mount Churchman for extensive views of the surrounding country, as well as many birds in the copses growing on the granite monadnock.

Afterwards some of us went to find the **Red-backed Kingfisher** observed earlier during one of the surveys.

The next day, again in brilliant sunshine we packed up camp and surveyed, leap frogging along the State Barrier Fence to get to the second campsite 2 km north of the south-east corner of the reserve. A great campsite set in the lee of a large quartz outcrop from which there are views out over the reserve.

The third day saw the three groups doing surveys around the large loop track east of the reserve. There were a few fallen trees that needed moving and in many places long stretches of the track has become very overgrown with dense vegetation crowding in from both sides. This slowed down all the vehicles to a crawl in places, causing some damage to vehicle paintwork. I suspect that this track will become impassable within a few years unless the tracks are renewed by more mining company surveys.



Red-tailed Black Cockatoo
Photo by Lorraine Chyne



Red-backed Kingfisher
Photo by Andrew Hobbs

The weather was pleasant for the entire trip; warm and sunny. Having three groups meant that all the sites could be surveyed in the early part of each day, the best time for such surveys. Overall a total of 68 species were seen, with the last being a single **Major Mitchell's Cockatoo** flying over the State Barrier Fence as the last two vehicles left to return to Perth.

Participants: Andrew & Jill Hobbs, Sue Abbotts, Xenia Dennett, Richard & Lorraine Chyne, Libby McGill, Pat & Jim Jordan, Ray Walker and Sue & Graham Johnson.

Bird List

Emu, Mound Builders

Emu, Malleefowl

Birds of Prey

Spotted Harrier, Wedge-tailed Eagle, Peregrine Falcon, Brown Falcon, Nankeen Kestrel, Square-tailed Kite

Pigeon, Doves

Common Bronzewing, Crested Pigeon

Cockatoos, Parrots

Red-tailed Black-Cockatoo, Galah, Little Corella, Major Mitchell's Cockatoo, Regent Parrot, Australian Ringneck

Cuckoos

Pallid Cuckoo, Black-eared Cuckoo, Horsfield's Bronze-Cuckoo

Night Birds

Southern Boobook, Tawny Frogmouth, Spotted Nightjar

Kingfishers

Red-backed Kingfisher, Rainbow Bee-eater

Treecreepers	Rufous Treecreeper
Wrens, Pardalotes	Splendid Fairy-wren, Striated Pardalote
Scrubwrens, Allies	Weebill, Inland Thornbill, Chestnut-rumped Thornbill, Yellow-rumped Thornbill, Redthroat, Southern Whiteface
Honeyeaters	Brown-headed Honeyeater, White-fronted Honeyeater, Brown Honeyeater, Pied Honeyeater, Singing Honeyeater, White-eared Honeyeater, Yellow-plumed Honeyeater, Yellow-throated Miner, Spiny-cheeked Honeyeater, Red Wattlebird
Chats, Robins	Jacky Winter, Red-capped Robin, Crimson Chat
Babblers, Quail-Thrush	White-browed Babbler
Quail-thrush, Allies	Copper-backed Quail-thrush
Whistlers, Shrike-thrush	Golden Whistler, Rufous Whistler, Gilbert's Whistler, Grey Shrike-thrush, Crested Bellbird
Magpie-lark, Flycatchers	Magpie-lark, Grey Fantail, Willie Wagtail
Cuckoo-shrikes	Black-faced Cuckoo-shrike, White-winged Triller
Woodswallows	Masked Woodswallow, Black-faced Woodswallow
Magpie, Butcherbirds	Grey Currawong, Pied Butcherbird, Grey Butcherbird, Australian Magpie
Ravens	Australian Raven, Little Crow
Pipit	Australasian Pipit
Swallows, Martins	Tree Martin



Jim and Pat Jordan
Photo by Lorraine Chyne

Our proposed GWW program for 2019:

Autumn:

March 8 Sundowner 5.30 - 7.30pm. Celebrating seven years of surveys in the Great Western Woodlands. Presentation with light snacks and drinks provided. All volunteers invited, Ecology Centre, Perry Lakes Drive.

April 1 - 4 Credo. Arrive Sunday afternoon 31st March to settle in. Surveys start 1st April. Please book your own accommodation - camping or rooms available. Book through DPaW Kalgoorlie or the Caretakers 08 9024 2063.

May 1 - 9 Frank Hann/Peak Charles followed by Dundas

May 10 - 13 Credo Training Course

Spring:

September 1 - 9 Helena and Aurora followed by Jilbadji

September 2 - 6 Transline, possibly extended to Naretha Bore.

These areas (except Credo) are remote and surveyors need to be fully equipped with 4 x 4 vehicles, all camping gear and capable of carrying food, water and fuel for the trip; and be competent to identify the birds likely to be encountered.

A special treat!

Drone footage highlighting some of the wonders of the Helena and Aurora Range.

If you know anyone who would like to see more of the Range, but cannot visit it in person, this is one quick way to share it with them.

youtu.be/LyflBHvrP4E

Research update: Effects of time since fire on woodland birds

by Carl Gosper

Data collected in the Birds of the Great Western Woodlands (GWW) project is supporting a variety of scientific studies that will inform the conservation management of the GWW. In a recently-published paper, researchers from the Birds in the GWW Technical Advisory Group investigated changes in bird communities with time since fire, with a focus on woodland birds declining in the western Australian wheatbelt. Below is a summary of this study and details of how it can be accessed.

Many woodland birds in southern Australia have declined as a consequence of habitat loss and fragmentation. The Great Western Woodlands supports important populations of many declining woodland birds, but the woodlands have been impacted by a number of large wildfires over recent decades. There has been limited investigation to date as to how birds that decline under land clearance and fragmentation are affected by fire in uncleared woodlands, and how the cumulative impacts of these disturbances affects the status of species and communities. Using the ~400-year *Eucalyptus salubris* (gimlet) chronosequence (a set of sites with similar attributes other than time since fire) established by the Department of Biodiversity, Conservation and Attractions and CSIRO, we examined how time since fire affects bird community richness, reporting rates and composition. Additionally, we tested whether taxa grouped on the basis of responses to vegetation clearance and fragmentation in the adjoining Western Australian wheatbelt were associated with either recently-burnt or long-unburnt woodlands. Consistent with substantial and prolonged changes in vegetation composition and structure after fire in obligate-seeder *E. salubris* woodlands, woodland bird communities were strongly affected by fire. Species richness and total reporting rates increased with time since fire, and community composition changed across the entire multi-century span of the chronosequence. Woodland birds most negatively impacted by vegetation clearance and fragmentation were strongly associated with long-unburnt woodlands. In a regional south-western Australian context, where extensive vegetation clearance has substantially reduced the range and populations of many woodland bird species, the ability of unfragmented woodlands in the GWW to support populations of these species will be strongly contingent on appropriate fire management. Specifically, as stand-replacement fires have affected 25–30% of GWW woodlands over recent decades, management to limit the extent of fire in remaining long-unburnt woodlands would appear a priority for conservation of woodland bird diversity.

This paper is available [online](#), or alternatively contact Carl Gosper (carl.gosper@dbca.wa.gov.au) for a copy.

Citation: Gosper CR, Fox E, Burbidge AH, Craig MD, Douglas TK, Fitzsimons JA, McNee S, Nicholls AO, O'Connor J, Prober SM, Watson DM, Watson SJ and Yates CJ (2019) Multi-century periods since fire in an intact woodland landscape favour bird species declining in an adjacent agricultural region. *Biological Conservation* 230, 82-90.



Bird abundance, richness and composition changes with time since fire, reflecting changes in vegetation between recently-burnt (left), intermediate-aged (centre) and long-unburnt (right) *Eucalyptus salubris* (gimlet) woodlands.

For more information about the project please contact:

Survey Coordinators:

Libby McGill, Lorraine Chyne

Great Western Woodlands bird surveys

E gww@birdlife.org.au

www.birdlife.org.au/projects/great-western-woodland