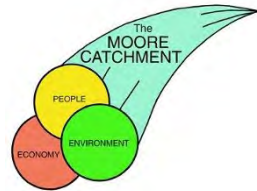


MOORE to the point



*Serving the Moore
River catchment
since 1995*

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Issue 28 Summer 2013

Welcome to the Moore Catchment Council's (MCC) 28th *Moore to the Point* newsletter. Lots to read in this edition, with projects finishing up and new funding for projects being secured. Read on.....

editor *Rachel Walmsley*

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MCC secures funds for Carnaby's Project

MCC are delighted to reveal that the State NRM office has funded a new project called '*Planting feed species for Carnaby's Black-Cockatoo in the Moora and Koobabbie Important Bird Areas*'. The project will run for 12 months and see 12,500 seedlings planted in the designated areas.

The Moora and Koobabbie Important Bird Areas (IBAs) support up to 60 and 32 breeding pairs of Carnaby's Black-Cockatoo, respectively. The birds are drawn to these areas during the breeding season because of the presence of suitable nesting hollows in some remaining salmon gums within Moora township and road-rail reserve, and conserved in remnant woodland within farmland at Koobabbie (near Coorow). However, breeding pairs struggle to rear chicks to fledging and beyond, due to shortage of food plants remaining in the landscape as a result of clearing for agriculture. These IBAs, in particular, form small islands of nesting trees within a largely cleared landscape.



Above: Carnaby's pair in Moora

This project will increase the area of suitable feed habitat for Carnaby's Black-Cockatoo in these small isolated IBAs to enhance the breeding prospects of this rare and endangered species. The planting areas will be located close to the breeding sites to enable efficient foraging during the breeding season, and will include salmon gum seedlings to increase the number of suitable nesting trees in the long term.



Above: MCC had a visit from Terry Redmond to personally deliver the project cheque for \$45,000. Pictured l-r Arthur Tonkin, Duncan Peter, Grant Woodhams, Terry Redmond, Tony White, Helen Watkins & Shane Love

Some planting locations have already been identified around Moora on both private and Shire land but MCC **needs more landholders**. Seedlings are **free** and include Salmon Gums, York Gums, Wandoo, Hakeas and Grevilleas. Please phone Rachel on 9653 1355 to discuss.



Interested findings for completed bird project

MCC has recently completed their State NRM funded project 'Improving habitat and connectivity in the farming landscape for birds in the Moore River catchment'. The project achievements include:

- ☺ **Extensive bird surveys (report below).** For the first time, two 'conservation-reliant species' (Western Thornbill and Grey Shrike-thrush) were detected in 11 year-old mixed eucalypt/shrub planted areas. These revegetated sites were structurally complex and floristically diverse enough to provide foraging, roosting and, in some cases, nesting opportunities for these species. This is a significant finding.
- ☺ A video series has been produced to engage and motivate landholders to include biodiversity considerations in their land management decision-making (web links on page 8).
- ☺ Three important ecological linkages established on private land, by protecting or revegetating corridors to connect isolated remnant patches to larger areas of remnant vegetation, such as nature reserves.
- ☺ Community information day and field trip in Calingiri to discuss project findings.

Bird Survey Results – bird numbers

The bird surveys were conducted by ornithologist, Andrew Huggett, in spring (October 2011) and autumn (April 2012) at 15 sites on 6 farms across the catchment. Eight of the sites were remnant (original) vegetation and seven were revegetation (planted vegetation) sites. The remnant sites varied from ridgetop wandoo woodland and breakaway shrub- and heathland, to lower slope salmon gum woodlands, to sandplain heath and banksia-coastal blackbutt-nuytsia woodland. The revegetation sites included tagasaste, sandalwood and saltbush plantings, and revegetated saline creeklines. The following is a summary of part of Andrew Huggett's detailed report, which is available from Moore Catchment Council.

A total of 1,167 individual birds from 68 species were recorded during the surveys. Most of these were terrestrial species and some were aquatic species. Greater bird numbers were recorded in autumn than spring. There are several probable causes for this difference:

- more ground granivores (ground foraging seed eaters) from neighbouring areas seeking food (e.g. Australian Ringneck and Elegant Parrot)
- presence of nomadic species seeking seasonally available food (e.g. Silvereye)
- presence of new season young birds (e.g. Red-capped Robin, Splendid Fairy-wren and White-fronted Chat)
- resident birds being more visible following completion of breeding (e.g. Red-capped Robin and Splendid Fairy-wren).



Although greater bird numbers were recorded in autumn than spring, fewer bird species were present in autumn than spring. Summer breeding migrants (e.g. Shining Bronze-Cuckoo, Sacred Kingfisher and White-winged Triller) and nomadic honeyeaters (e.g. Western Wattlebird and Spiny-cheeked Honeyeater) contributed to the greater number of species in spring.

More birds and more species were recorded in remnant (original) vegetation than in revegetation (planted vegetation).

	remnant		revegetation	
	spring	autumn	spring	autumn
no. of birds	378	422	183	184
no. of species	48	36	37	30

The most abundant species in remnant vegetation and revegetation were the resilient and adaptive birds usually found in farming landscapes, including Australian Ringneck, Galah, Brown Honeyeater, Weebill and Silvereye. Low numbers of White-winged Fairy-wren, Western Thornbill, Striated Pardalote, Singing Honeyeater, Inland Thornbill and Rufous Whistler were recorded in woodland and shrubland habitats in good condition. The least abundant birds included Peregrine Falcon, Red-capped Parrot, Spotted Pardalote, Scarlet Robin, Golden Whistler, Western Spinebill and Yellow-plumed Honeyeater.

Cont...

Right: Some of the remnant vegetation sites surveyed in this study.



Bird Survey Results – birds of conservation significance



The study area provides habitat for 45 bird species of global, national, WA state or local conservation significance. Seventeen of these are significant at national and state levels, including rare and endangered **Carnaby's Black-Cockatoo** (shown at left). The remaining 28 species are locally significant because of the amount of loss and fragmentation of their habitat across the catchment, which may have resulted in decline in population and decline in many of these species were recorded during this and previous studies (e.g. Peregrine Falcon, Scarlet Robin, Elegant Parrot, Crimson Chat, Western Thornbill, Inland Thornbill, Golden Whistler and Grey Shrike-thrush).

areas where these species occur, or other threats.

Many of these species were recorded during this and previous studies (e.g. Peregrine Falcon, Scarlet Robin, Elegant Parrot, Crimson Chat, Western Thornbill, Inland Thornbill, Golden Whistler and Grey Shrike-thrush).



<p>Scarlet Robin (birdforum.net photo)</p>	<p>Elegant Parrot (ibc.lynxeds.com photo)</p>	<p>Western Thornbill (Brian Jenkins photo)</p>	<p>Peregrine Falcon (Joe Tonga photo)</p>
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Improving Habitat and Connectivity in the Farming Landscape for Birds in the Moore River Catchment

Bird Survey Results – how birds use their habitats on farms

The bird surveys were conducted by ornithologist, Andrew Huggett, in spring (October 2011) and autumn (April 2012) at **15 sites on 6 farms across the catchment**. The following is a summary of part of Andrew Huggett's detailed report, which is available from Moore Catchment Council.


In general, remnant vegetation provided a wider range of foraging, roosting, nesting and refuge habitats for birds than revegetation, which is reflected in the greater diversity of birds using these areas. Older mixed species revegetated sites may have sufficient structural complexity (e.g. canopy, middle storey and ground layers) and variation in microhabitats (e.g. logs and leaf litter; amount of foliage cover) to provide foraging, roosting and nesting opportunities for birds. Younger plantings usually have insufficient structural complexity and canopy development to provide birds with more than supplementary foraging habitat. These sites are used by the more resilient, adaptable or open country species such as Silver-eye, White-fronted Chat and Australasian Pipit.

Following is a list of the types of habitat used by birds during the surveys and examples of the bird species using them.

habitat type	examples of bird species utilising these habitats
Airspace above remnants and revegetation	Welcome Swallow, Tree Martin, Black-faced Cuckoo-shrike, White-winged Triller
Fencelines along revegetation-paddock edges	Willie Wagtail, Red-capped Robin, Yellow-rumped Thornbill, White-fronted Chat, Brown Songlark, Rufous Songlark, Australasian Pipit
Overhead powerlines, poles and windmills	Nankeen Kestrel, Galah, Australian Ringneck, Black-faced Woodswallow, Australian Magpie, Pied Butcherbird, Australian Raven, Welcome Swallow
Dead branches and standing dead trees (stags)	Southern Boobook, Wedge-tailed Eagle, Brown Falcon, Nankeen Kestrel, Galah, Pied Butcherbird, Australian Magpie, Magpie-lark, Sacred Kingfisher
Open ground under planted vegetation providing some leaf and bark litter, seeds and invertebrates	Common Bronzewing, Galah, Splendid Fairy-wren, White-winged Fairy-wren, Yellow-rumped Thornbill, Red-capped Robin, Australian Magpie, Willie Wagtail, Australian Raven, Magpie-lark, Australasian Pipit
Saline creeks and sapphire flats	White-fronted Chat, Crimson Chat, Red-capped Plover, Australasian Pipit, Welcome Swallow
Shrub and canopy foliage and bark/stem substrates including tree hollows providing leaf and bark insects, vertebrate prey, nectar, fruit and nest/roost sites	<u>remnants and older plantings</u> : Western Gerygone, Weebill, Striated Pardalote, Red-capped Robin, Scarlet Robin, Peregrine Falcon, Grey Fantail, Rufous Whistler, Singing Honeyeater, Brown Honeyeater, Red Wattlebird, Silvereeye, Tree Martin, <u>younger plantings</u> : Weebill, Western Gerygone, Brown Honeyeater, Grey Fantail, Silvereeye
Creeks, farm dams, vegetated dam margins, ephemeral wetlands and pooled water in paddocks and remnants	<u>aquatic species</u> : Straw-necked Ibis, White-faced Heron, Pied Cormorant, Purple Swamphen <u>terrestrial species</u> : Little Button-quail, Sacred Kingfisher, Laughing Kookaburra, Splendid Fairy-wren, Variegated Fairy-wren, Common Bronzewing

Birds which use similar types of food, in similar way, belong to the same foraging guild. The composition of foraging guilds can be an important indicator of ecosystem health. The most adaptable, opportunistic and resilient species within particular foraging guilds are the most abundant species in both remnant and planted vegetation. Members of particular foraging guilds which are species with greater sensitivity to habitat loss and fragmentation were only recorded in remnant woodland and shrubland.

Following is a list of the numbers and examples of bird species in each of the foraging groups observed during the study in the remnant and revegetation sites.

foraging guild	no. of bird species					examples of species	
	total	remnant		revegetation		remnant	older revegetation
		spring	autumn	spring	autumn		
ground insectivores	14	7	6	10	7	Splendid Fairy-wren, Yellow-rumped Thornbill, Australian Magpie, Magpie-lark, Red-capped Robin	Splendid Fairy-wren, Willie Wagtail, White-fronted Chat, Red-capped Robin, Australasian Pipit
carnivores	11	7	6	4	2	Grey Butcherbird, Pied Butcherbird, Laughing Kookaburra, Sacred Kingfisher, Southern Boobook, Wedge-tailed Eagle, Brown Falcon, Peregrine Falcon, Australian Hobby, Black-shouldered Kite, Nankeen Kestrel	
ground granivores	9	5	5	6	4	Stubble Quail, Common Bronzewing, Little Button-quail, Galah, Long-billed Corella, Little Corella, Australian Ringneck	Common Bronzewing, Crested Pigeon, Little Button-quail, Galah, Little Corella, Australian Ringneck, Elegant Parrot
nectarivores/ insectivores	8	8	6	3	4	Western Wattlebird, Spiny-cheeked Honeyeater, Tawny-crowned Honeyeater	Singing Honeyeater, Brown Honeyeater, Red Wattlebird, Yellow-plumed Honeyeater
shrub insectivores	7	8	6	3	4	Western Thornbill, Rufous Whistler, Golden Whistler, Grey Shrike-thrush, Grey Fantail	Inland Thornbill, Horsfield's Bronze-Cuckoo
canopy insectivores	5	4	3	3	2	Striated Pardalote, Spotted Pardalote	Weebill, Western Gerygone, Shining Bronze-Cuckoo
aerial insectivores	5	4	2	2	4	Black-faced Cuckoo-shrike, Welcome Swallow, Tree Martin, White-winged Triller, Black-faced Woodswallow	
omnivores	2	1	2	2	1	Australian Raven, Silvereeye	
canopy granivores	2	1	1	1	0	Carnaby's Black-Cockatoo, Red-capped Parrot	
nectarivores	1	0	1	0	0	Western Spinebill	
aquatic guilds (7)	7	6	2	0	1	Purple Swamphen, Straw-necked Ibis, Red-capped Plover (right), Little Black Cormorant	

breeding

Thirty-eight bird species were observed breeding during the study. Most were terrestrial species and the remainder were aquatic species in seasonal wetland and streams. About three-quarters of the breeding records came from remnant vegetation sites and included hollow-nesters (e.g. Carnaby's Black-Cockatoo, Galah, Australian Ringneck and Sacred Kingfisher), upper canopy-nesters (e.g. Wedge-tailed Eagle, Australian Magpie, Magpie-lark and Weebill), shrub-nesters (e.g. Inland Thornbill nesting in brushwood revegetation, Red-capped Robin and Silvereeye), and ground or near-ground nesters (e.g. Splendid Fairy-wren and Little Button-quail). Revegetation provided nest sites for almost half of all breeding bird species detected in the study, highlighting the value of planted habitats for birds in the study area.

Spaded perennials turn bare sand into lush paddock

John Isbister is a very happy farmer. His newest perennial grass plantings at Ranfurly Park south of Moora, have turned two gutless white sand paddocks (over 100ha) into green lush pasture for his sheep. The key to success has been the careful planning and rigorous site preparation using spading to improve the non-wetting sands for good pasture establishment. The farm qualified for subsidies through the Northern Agricultural Catchments Council's (NACC) CFOC wind erosion program for perennial pasture establishment and fencing. Rachel Walmsley, Moore Catchment Council's (MCC) Natural Resource Management Officer negotiated the incentives with John and his dad Stuart.

Rachel says "John's planning for his 2012 pasture establishment started in autumn 2011 when the paddocks were grazed and then spaded. He had been watching others using the spading technique for a few years and felt it would be beneficial for his land and improve productivity." John used a Farmax spader which mixes soil to a depth of 300-400mm thus burying the non-wetting sands and bringing less water repellent sand to the surface. Rachel said "John remarked that it was pretty laborious and slow going as he could only do 1.8ha/hr but obviously looking back was well worth the slog."



Spaded vs unspaded – a couple of places in the paddock where it's clearly obviously why spading works

John then sprayed a knockdown herbicide in June 2011, and then planted a fodder crop of barley, sub-clover and yellow serradella to encourage a seed set of legumes (something John thinks in hindsight was risky in an exposed paddock). The result turned out to be valuable feed source. After grazing again in winter 2012, another knockdown was added in August before seeding of the perennial began on 3rd September 2012 using the Heritage Seeds Northern Mix (Gatton Panic and Rhodes Grass) with added Lucerne. Rachel added "John said he was rushing to get the seed in before the forecast rains. He used an Ausplow DBS seeder (with special small seed boot usually used for canola) and seeded at a rate of 4-5kg/ha with 500mm spacings." Fertiliser included Super potash 3:1 @ 80kg/ha and Macro Pro extra @ 60kg/ha. John estimates approximate costings at \$120/ha for the spading and \$200/ha for establishment (seed, labour, machinery, chemicals).

The forecast rains and cold temperatures didn't cause as much germination as expected but over the coming weeks the warmer soil and rain events that did occur encouraged good germination and growth. Rachel said "I visited John early


January 2013 to assess the perennials for payment and was astounded at what I saw. In what was tipped to be a pretty rubbish year for perennial pasture establishment, John has managed to establish the best paddocks I've ever seen." Rachel continued "In addition, the spading has actively demonstrated its worth and is visually apparent in a number of places within the paddocks where John lifted the spader a couple of times – only a few plants have survived." A small issue happened in the second paddock mid harvest time when a number of sheep decided the grass was greener on the other side of the fence and mowed it down to near nothing. Recovery has been astounding. Rachel concluded "John is certainly happy with the result and is looking forward to utilising his pastures soon."



John is certainly a happy farmer !

Through the Northern Agricultural Catchment's Council (NACC), MCC has two new funding options to offer landholders - Hidden Treasures, and Rivers and Wetlands.

If you interested in either, then give us a ring on **9653 1355**. Details below:




Overview: Incentives for fencing and protecting priority remnant vegetation

What do I get?

- Up to \$4,000/km for fencing
- \$1,000/site for covenanting

Avail. until July 2013



Overview: Incentives for fencing and revegetation/enhancement of rivers and wetlands

What do I get?

- Fencing - \$3,500/km
- Revegetation - \$1,000/ha

4 year project

MCC OGM in Latham focuses on Malleefowl

MCC held their latest OGM in Latham on February 15th. We were fortunate to have Sally Cail from the Northern Mallee fowl Group come along to explain what they do and why Malleefowl need protecting. After the meeting, the group were invited out to Peter Waterhouse's property to look at an active mound.

Malleefowl (*Leipoa ocellata*) are large ground dwelling birds somewhat larger than a domestic hen. Once common, their numbers have seriously declined over the last 100 years. Malleefowl are classified as **"fauna that is rare or likely to become extinct"** under the Western Australian Wildlife Conservation Act 1950-91. Nationally, the Malleefowl is listed as a threatened species in need of national conservation efforts (National Recovery Plan for Malleefowl, Dr Joe Benshemesh 2000).

Malleefowl dedicate 9-11 months per year building and maintaining a large incubation mound of soil, leaves and twigs. The eggs are laid in the mound, buried and left to incubate by heat generated from composting litter. Malleefowl mounds may be used over many generations and can attain an impressive size of 22 metres in circumference and one metre high.

Threats include:

- Loss of habitat (clearing, fires)
- Remnant vegetation decline (salinity, grazing)
- Introduced animals (e.g. foxes, cats, rabbits, goats)
- Isolated remnants
- Lack of greater Community awareness

Exert from: <http://www.malleefowl.com.au>



Above/left: Peter Waterhouse, took these photos early morning on the 15th of the malleefowl working the mound.

Below: By mid afternoon when MCC visited, the mound was covered up again. A lot of work everyday !



Birds on Farms Video Series

Join ornithologist, Andrew Huggett, on his visits to farms in the Moore River Catchment to see how birds use areas of planted and original vegetation on farms. Here are the YouTube links to videos discussing the bird habitat value of planted and remnant vegetation in the farming landscape of the Moore River Catchment, as well as the perspectives of several landholders who have protected areas on their farms for the conservation of flora and fauna.

Remnant Vegetation	Link to YouTube
Flora Downs	http://youtu.be/ARy78eEyePA
Wensleydale	http://youtu.be/7YAKX5MbPa8
Waalidjap	http://youtu.be/f_EEvoFM0gQ
Sammon Hills	http://youtu.be/3ZOIWncugf8
Gillingarra	http://youtu.be/g1HskZIQkUk
Moore River at Homewood Farm	http://youtu.be/MQxfhafgBkA
Homewood Farm	http://youtu.be/AFzrdqROjaQ
Planted Vegetation	Link to YouTube
Flora Downs tagasaste	http://youtu.be/iLbUkJmCsIc
Wensleydale saltbush	http://youtu.be/cbB5IVQrjw4
Damara Downs brushwood	http://youtu.be/ZseKfxUSxIk
Carrah Farms saltland	http://youtu.be/oOrQkQWIVSY
Sammon Hills sandalwood	http://youtu.be/xMekgtS1jgk
Landholder Perspectives	Link to YouTube
Carrah Farms	https://www.youtube.com/watch?v=QpGeo4UW7eU
Sammon Hills	http://youtu.be/EhFD_Ba6f_U
Flora Downs	http://youtu.be/sg7115dXQwU

Farewell to Ingrid



MCC said goodbye to one of its NRMOs at the end of 2012. Ingrid Krockenberger has been with MCC since August 2008.

With her keen interests in native vegetation and fauna, Ingrid helped MCC obtain funding for two state funded grants to promote and protect native birds in the Catchment including Carnaby's Black Cockatoo. She also helped deliver the NACC incentive programs, and was an active member of the Gillingarra LCDC, Friends of the Moora Woodlands and the Gingin Water Group.

Ingrid is heading back over East to be with her family. MCC wish her all the best for the future.

Moore estuary workshop

Our region includes many estuaries important for their ecological and recreational values. However, pressures such as population growth and poor water quality are impacting on these sensitive ecosystems. Join NACC and MCC for a community workshop aimed at discussing:

- Estuary form and function
- Current knowledge
- Aboriginal cultural heritage values
- Community values
- Threats
- Future management options

Event will run from 9-3pm 6th April in Guilderton, with optional estuary cruise departing at 9am. Non cruisers to meet at Community hall at 11am.

For RSVP, see left notice.

Upcoming events

- ★ 6th April - Moore estuary day, Guilderton RSVP Rachel 9653 1355 or www.eventbrite.com.au/event/5254446190

Moore Catchment Council

protecting the natural resources in the Moore River Catchment



Rachel Walmsley

NRM officer

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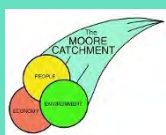
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