

Briefing Note

To	Jenny Howie
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From	Cormac Collins
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Subject	Yathroo Wind Farm: Spring 2025 BBUS

Survey Methods

The Spring 2025 BBUS at the Yathroo Project Area was undertaken between 13 October 2025 and 17 October 2025 and is the fifth BBUS completed at the site (following surveys in Spring 2024 and Summer, Autumn and Winter 2025). Field personnel were Principal Zoologist Wesley Bancroft and Ecologists Ray Turnbull, Donald McCallam and Deon Loo.

Systematic surveys were stratified across fauna habitat types (FHTs) that had been previously defined and delineated within the Project Area. The survey work consisted of:

- i. **Paired vantage point surveys (30 minutes) and area searches (20 minutes) for birds.** Three replicate surveys were undertaken within Agriculture (six sites), Banksia Woodland (five sites), Flooded Gum Floodplain (five sites), Jarrah Marri Forest (three sites), Pine Plantation (three sites), and Wetland (one site) FHTs; totalling 23 sites, 138 surveys (69 vantage points and 69 area searches) and 3,450 survey-minutes.
- ii. **Ultrasonic recordings for bats.** Autonomous recording units (ARUs) were deployed for three nights within Agriculture (three sites), Banksia Woodland (three sites), Flooded Gum Floodplain (two sites), Jarrah Marri Forest (two sites), and Wetland (two sites) FHTs; totalling 12 sites and 36 survey-nights.
- iii. **Wetland surveys for waterfowl and shorebirds.** Waterbird census was undertaken at four regularly surveyed open-water wetlands and an additional five wetlands that held water (and waterbirds) at the time of survey.

Incidental/opportunistic observations, especially of conservation significant (those listed under federal or state legislation, or ranked as a priority species by the Department of Biodiversity, Conservation and Attractions, DBCA) or at-risk (those most likely to pose a collision risk with wind turbines) taxa, were made continuously.

Survey limitations

No constraints (including access and weather) or unforeseen circumstances limited the Spring 2025 BBUS and the surveys progressed as planned. Landholder co-operation is acknowledged and appreciated, and the weather experienced (a glorious week of fine, warm days with cool nights and still mornings) provided near-perfect conditions for assessment.

Results summary

Vantage point and area searches (birds)

- 1,432 observations from 67 bird species (including 59 species recorded from vantage points and 62 recorded in the area searches).
- Most frequently recorded species were Galah, Australian Ringneck, Tree Martin, Australian Raven, Brown Honeyeater, Western Gerygone, Yellow-rumped Thornbill, Western Long-billed Corella, Striated Pardalote and Rufous Whistler.
- One conservation significant species was recorded: Carnaby's Black Cockatoo (9 vantage point records and one area search record) is listed as Endangered under both the federal Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and the Western Australian Biodiversity Conservation Act 2016 (BC Act).
- Four previously unrecorded species were added in the Spring 2025 surveys: Western Rosella, Crimson Chat, White-winged Triller and Mistletoebird. None of these is of conservation significance.
- Eight species were recorded flying at heights greater than 59 m above ground level (within the proposed rotor swept area, RSA): Australian Raven (2 records), Wedge-tailed Eagle (1), Australian Kestrel (1), Whistling Kite (2), White-bellied Sea Eagle (1), White-necked Heron (1), Australian Ringneck and Tree Martin (1). None of these are conservation significant species.
- A complete list of bird species recorded during the surveys is provided in **Appendix A.1**.

ARU surveys (bats)

- Data will be sent to a subconsultant for analysis. No results are available at present.

Wetland surveys

- 1059 individuals of 26 waterbird species were counted across all wetlands.
- 386 individuals of 20 waterbird species were counted across the four repeat-survey wetlands (previously assessed in BBUS and stand-alone shorebird surveys).
- One conservation significant species was recorded: Blue-billed Duck, ranked as Priority 4 by DBCA, with 5 birds recorded at two wetlands (WE-C2, 2 birds; and WE02, 3 birds).
- No migrant shorebirds were recorded. Moreover, no local (small) non-migrant shorebirds were recorded either. Only large, non-migrant wading birds (herons, spoonbills and ibis) were observed, and these were generally restricted to one or two (shallower) wetlands. Most wetlands were 'full', with a high water level and little to no exposed mud around the periphery. Therefore, there was limited to no suitable habitat for most shorebirds (local or migratory) at most sites at this time of year.

- Four previously unrecorded species were added in the Spring 2025 surveys: Black Swan, Whiskered Tern, Great Egret and Australian Reed Warbler. None of these is of conservation significance.

Incidental records

- Carnaby's Black Cockatoos were recorded in small flocks, pairs and individuals across the Survey Area. Notably there appeared to be an eastern shift of birds from the autumn and winter 2025 BBUS (and habitat assessments) which had larger flocks of birds concentrated in the Banksia Woodlands (and roosting in pine plantations) on the western edge. This likely reflects birds moving east and up on to the Dandaragan Plateau to breed (especially along drainage lines where Flooded Gums provide nesting opportunities). One Carnaby's Black Cockatoo nest was confirmed (outside of the DC but within the Survey Area), near BBUS site FG02. A number of single birds noted in the early morning and late afternoon may also have been indicative of breeding behaviour (although these were not followed up due to time constraints). No roost surveys were attempted (again due to time constraints) and, thus, it is uncertain as to whether either of the currently known roost locations were being utilised at this time of year. A modest flock (of at least 10 birds) were noted near the Yathroo homestead after sunset one evening and may have roosted nearby (e.g. the known roost to the south of this location).
- Opportunistic surveying for Forest Red-tailed Black Cockatoos (or signs of their activity) was undertaken continuously through the survey period. No birds were observed (despite more than 180 ecologist-hours within the Survey Area). Several locations of previous foraging activity (foraged Marri nuts) were recorded but these were relatively confined to the southern Survey Area (especially the south-west). Interestingly, the foraging debris was of a single age-category ('intermediate'; weeks to months old) with no recent or older (months to years) debris located in these areas which suggests intermittent (and not continued) use of these sites.

Conservation significant species summary

Two conservation significant species were recorded in the Spring 2025 BBUS:

- Blue-billed Duck (wetland surveys)
- Carnaby's Black Cockatoo (BBUS and incidental observations)

None of these species was recorded flying at RSA height.

Future Surveys

The BBUS survey program is progressing as expected and, at this stage, is providing data that are deemed adequate to reasonably assess the risk to most bird and bat species on site. Future surveys should continue as planned (including monthly migratory shorebird surveys) but consideration should also be given to additional targeted surveys for other higher-risk taxa/groups such as Carnaby's Black Cockatoo and Forest Red-tailed Black Cockatoo to understand the number of individuals present to inform size of local population(s), the regularity of their occurrence, flight heights and how they may be utilising the Survey Area.

Appendix A

Data Summaries

A.1 Bird species recorded in the Spring 2025 BBUS

Family	Common Name	Taxon	EPBC Act Listing	BC Act Listing	Transect Survey	Vantage Point Survey	Wetland Census	Incidental
Anatidae	Black Swan	<i>Cygnus atratus</i>					X	
	Australian Shelduck	<i>Tadorna tadornoides</i>					X	
	Pink-eared Duck	<i>Malacorhynchus membranaceus</i>					X	
	Australian Wood Duck	<i>Chenonetta jubata</i>			X	X	X	
	Australasian Shoveler	<i>Spatula rhynchotis</i>					X	
	Pacific Black Duck	<i>Anas superciliosa</i>			X	X	X	
	Grey Teal	<i>Anas gracilis</i>			X		X	
	Hardhead	<i>Aythya australis</i>					X	
	Blue-billed Duck	<i>Oxyura australis</i>		P4			X	
	Musk Duck	<i>Biziura lobata</i>					X	
Phasianidae	Stubble Quail	<i>Coturnix pectoralis</i>			X	X		
Cuculidae	Horsfield's Bronze Cuckoo	<i>Chalcites basalis</i>			X	X	X	
	Shining Bronze Cuckoo	<i>Chalcites lucidus</i>			X	X		
Columbidae	Common Bronzewing	<i>Phaps chalcoptera</i>			X	X		
	Crested Pigeon	<i>Ocyphaps lophotes</i>			X	X	X	
Rallidae	Eurasian Coot	<i>Fulica atra</i>					X	
Podicipedidae	Australasian Grebe	<i>Tachybaptus novaehollandiae</i>					X	
	Hoary-headed Grebe	<i>Poliocephalus poliocephalus</i>					X	
Recurvirostridae	Black-winged Stilt	<i>Himantopus himantopus</i>					X	
Charadriidae	Black-fronted Dotterel	<i>Elsayornis melanops</i>					X	

Family	Common Name	Taxon	EPBC Act Listing	BC Act Listing	Transect Survey	Vantage Point Survey	Wetland Census	Incidental
Laridae	Silver Gull	<i>Chroicocephalus novaehollandiae</i>					X	
	Whiskered Tern	<i>Chlidonias hybrida</i>					X	
Phalacrocoracidae	Little Pied Cormorant	<i>Microcarbo melanoleucos</i>					X	
	Little Black Cormorant	<i>Phalacrocorax sulcirostris</i>					X	
Threskiornithidae	Australian White Ibis	<i>Threskiornis molucca</i>					X	
	Straw-necked Ibis	<i>Threskiornis spinicollis</i>					X	
	Yellow-billed Spoonbill	<i>Platalea flavipes</i>					X	
Ardeidae	White-necked Heron	<i>Ardea pacifica</i>				X	X	
	Great Egret	<i>Ardea alba</i>					X	
	White-faced Heron	<i>Egretta novaehollandiae</i>					X	
Pelecanidae	Australian Pelican	<i>Pelecanus conspicillatus</i>					X	
Accipitridae	Black-shouldered Kite	<i>Elanus axillaris</i>						X
	Little Eagle	<i>Hieraaetus morphnoides</i>			X			
	Wedge-tailed Eagle	<i>Aquila audax</i>			X	X		
	Brown Goshawk	<i>Accipiter fasciatus</i>			X			
	Swamp Harrier	<i>Circus approximans</i>				X	X	
	Whistling Kite	<i>Haliastur sphenurus</i>			X	X	X	X
	White-bellied Sea-Eagle	<i>Haliaeetus leucogaster</i>		IA		X		
Alcedinidae	Laughing Kookaburra	<i>Dacelo novaeguineae</i>			X	X	X	
	Sacred Kingfisher	<i>Todiramphus sanctus</i>			X	X	X	
Meropidae	Rainbow Bee-eater	<i>Merops ornatus</i>		IA	X	X	X	
Falconidae	Nankeen Kestrel	<i>Falco cenchroides</i>			X	X	X	X
	Brown Falcon	<i>Falco berigora</i>			X			

Family	Common Name	Taxon	EPBC Act Listing	BC Act Listing	Transect Survey	Vantage Point Survey	Wetland Census	Incidental
Cacatuidae	Red-tailed Black-Cockatoo	<i>Calyptorhynchus banksii</i>						X
	Carnaby's Black-Cockatoo	<i>Zanda latirostris</i>		EN	X	X		X
	Galah	<i>Eolophus roseicapilla</i>			X	X	X	
	Western Corella	<i>Cacatua pastinator</i>			X	X	X	
Psittaculidae	Red-capped Parrot	<i>Purpureicephalus spurius</i>			X	X	X	
	Western Rosella	<i>Platycercus icterotis</i>				X		
	Australian Ringneck	<i>Barnardius zonarius</i>			X	X	X	
Maluridae	Purple-backed Fairywren	<i>Malurus assimilis</i>			X	X	X	
	Splendid Fairywren	<i>Malurus splendens</i>			X	X	X	
	White-winged Fairywren	<i>Malurus leucopterus</i>			X	X	X	
Meliphagidae	Western Spinebill	<i>Acanthorhynchus superciliosus</i>			X	X		
	Crimson Chat	<i>Epthianura tricolor</i>			X			X
	White-fronted Chat	<i>Epthianura albifrons</i>			X	X		
	New Holland Honeyeater	<i>Phylidonyris novaehollandiae</i>				X		
	Brown Honeyeater	<i>Lichmera indistincta</i>			X	X	X	
	Singing Honeyeater	<i>Gavicalis virescens</i>			X	X	X	
	Western Wattlebird	<i>Anthochaera lunulata</i>					X	
	Red Wattlebird	<i>Anthochaera carunculata</i>			X	X	X	
	Yellow-throated Miner	<i>Manorina flavigula</i>			X	X		
Pardalotidae	Spotted Pardalote	<i>Pardalotus punctatus</i>			X			
	Striated Pardalote	<i>Pardalotus striatus</i>			X	X	X	
Acanthizidae	Weebill	<i>Smicrornis brevirostris</i>			X	X		
	Rufous Fieldwren	<i>Calamanthus campestris</i>			X	X		
	Western Gerygone	<i>Gerygone fusca</i>			X	X	X	
	Western Thornbill	<i>Acanthiza inornata</i>			X	X		
	Yellow-rumped Thornbill	<i>Acanthiza chrysorrhoa</i>			X	X	X	

Family	Common Name	Taxon	EPBC Act Listing	BC Act Listing	Transect Survey	Vantage Point Survey	Wetland Census	Incidental
Artamidae	Australian Magpie	<i>Gymnorhina tibicen</i>			X	X	X	
	Grey Butcherbird	<i>Cracticus torquatus</i>			X	X	X	
	Pied Butcherbird	<i>Cracticus nigrogularis</i>			X	X	X	
Campephagidae	Black-faced Cuckooshrike	<i>Coracina novaehollandiae</i>			X	X	X	
	White-winged Triller	<i>Lalage tricolor</i>			X	X		
Neosittidae	Varied Sittella	<i>Daphoenositta chrysoptera</i>			X			
Pachycephalidae	Rufous Whistler	<i>Pachycephala rufiventris</i>			X	X		
	Grey Shrikethrush	<i>Colluricincla harmonica</i>			X	X		
Rhipiduridae	Willie Wagtail	<i>Rhipidura leucophrys</i>			X	X	X	
	Grey Fantail	<i>Rhipidura albiscapa</i>			X	X	X	
Monarchidae	Magpie-lark	<i>Grallina cyanoleuca</i>			X	X	X	
Corvidae	Australian Raven	<i>Corvus coronoides</i>			X	X	X	
Petroicidae	Jacky Winter	<i>Microeca fascians</i>			X			
	Scarlet Robin	<i>Petroica boodang</i>			X	X		
	Red-capped Robin	<i>Petroica goodenovii</i>			X	X		
Hirundinidae	White-backed Swallow	<i>Cheramoeca leucosterna</i>			X	X	X	
	Welcome Swallow	<i>Hirundo neoxena</i>			X	X	X	
	Tree Martin	<i>Petrochelidon nigricans</i>			X	X	X	
Acrocephalidae	Australian Reed Warbler	<i>Acrocephalus australis</i>					X	
Locustellidae	Little Grassbird	<i>Poodytes gramineus</i>					X	
	Brown Songlark	<i>Cincloramphus cruralis</i>			X	X	X	
	Rufous Songlark	<i>Cincloramphus mathewsi</i>			X	X	X	
Zosteropidae	Silvereye	<i>Zosterops lateralis</i>			X	X		
Dicaeidae	Mistletoebird	<i>Dicaeum hirundinaceum</i>			X	X		
Motacillidae	Australian Pipit	<i>Anthus australis</i>			X	X		