

Fieldwork Report for Bird Utilization Surveys at Proposed Wind Farm Site, Port Latta, Tasmania

By Alan Wiltshire

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This report details observations at the proposed Port Latta Wind Farm site for the 'winter' survey period only. Three other bird utilization surveys were conducted at the site; November 2017 (Spring), February 2018 (Summer), May 2018 (autumn) and the report detailing these three observation periods is dated June 2018.

Site descriptions and survey methods are described in the June 2018 report.

Results

The winter surveys were conducted from 12-16 August 2018.

All data collected during each survey period was entered into an 'Excel' spreadsheet.

Four new bird species were observed during the winter survey that had not been recorded during previous surveys. The additional species were Black Swan (*Cygnus atratus*), Grey Butcherbird (*Cracticus torquatus*), Sulphur-crested Cockatoo (*Cacatua galerita*) and Scarlet Robin (*Petroica boodang*). This takes the total number of species recorded at the site to 54. This does not represent all bird species present at the site, just those observed from the fixed points and during the survey periods.

The species observed, 'number of movements' and the maximum number of individuals observed at one time are shown in Table 1. This table also includes results from the three previous surveys.

During the winter survey period, Common Starlings (*Sturnus vulgaris*) were the species with the greatest 'number of movements' with a total of 2911 recorded. Silver Gulls (*Larus novaehollandiae*) had 1622 'movements' and Forest Raven (*Corvus tasmanicus*) 1357 'movements'.

A single night survey was conducted during the winter survey (15 August 2018). This survey was conducted by walking along the south-eastern boundary of the 'Dart' property to 'forest patch 3' on the north-eastern boundary. A single Southern Boobook (*Ninox novaeseewere*) was heard calling and a single Tawny Frogmouth (*Podargus strigoides*) was observed. No Masked Owls (*Tyto novaehollandiae*) were heard or observed.

Table 1. Bird species observed during the survey periods (listed in taxonomic order).

| Species Common Name | Total number of movements in Spring | Total number of movements in Summer | Total number of movements in Autumn | Total number of movements in Winter | Combined number of movements | Max. No. of individuals observed at one time in Spring | Max. No. of individuals observed at one time in Summer | Max. No. of individuals observed at one time in Autumn | Max. No. of individuals observed at one time in Winter |
|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|------------------------------|--|--|--|--|
| Black Swan <i>Cygnus atratus</i> | 0 | 0 | 0 | 10 | 10 | 0 | 0 | 0 | 6 |
| Australian Shelduck <i>Tadorna tadornoides</i> | 8 | 2 | 113 | 217 | 240 | 1 | 2 | 27 | 18 |
| Australian Wood Duck <i>Chenoetta jubata</i> | 38 | 0 | 4 | 60 | 102 | 9 | 0 | 4 | 8 |
| Chestnut Teal <i>Anas castanea</i> | 26 | 0 | 5 | 0 | 31 | 14 | 0 | 3 | 0 |
| Pacific Black Duck <i>Anas supercilliosa</i> | 52 | 9 | 3 | 18 | 82 | 10 | 8 | 2 | 4 |
| Australasian Grebe <i>Tachybaptus novaehollandiae</i> | 3 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 |
| Hoary-headed Grebe <i>Poliiocephalus poliocephalus</i> | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 |
| White-throated Needletail <i>Hirundapus caudacutus</i> | 0 | 350 | 0 | 0 | 350 | 0 | 250 | 0 | 0 |
| Great Cormorant <i>Phalacrocorax carbo</i> | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 0 | 0 |
| White-faced Heron <i>Egretta novaehollandiae</i> | 0 | 1 | 0 | 2 | 3 | 0 | 1 | 0 | 1 |
| White-bellied Sea-eagle <i>Haliaeetus leucogaster</i> | 1 | 8 | 1 | 2 | 12 | 1 | 2 | 1 | 1 |
| Brown Goshawk <i>Accipiter fasciatus</i> | 0 | 4 | 0 | 0 | 4 | 0 | 2 | 0 | 0 |
| Grey Goshawk <i>Accipiter novaehollandiae</i> | 0 | 0 | 5 | 1 | 6 | 0 | 0 | 2 | 1 |
| Swamp Harrier <i>Circus approximans</i> | 6 | 3 | 0 | 3 | 12 | 1 | 1 | 0 | 2 |
| Wedge-tailed Eagle <i>Aquila audax fleayi</i> | 2 | 3 | 11 | 7 | 23 | 1 | 2 | 2 | 2 |
| Brown Falcon <i>Falco berigora</i> | 3 | 22 | 4 | 6 | 35 | 1 | 2 | 2 | 1 |
| Australian Hobby <i>Falco longipennis</i> | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 1 | 0 |
| Banded Lapwing <i>Vanellus tricolor</i> | 0 | 5 | 0 | 23 | 28 | 0 | 3 | 0 | 3 |
| Masked Lapwing <i>Vanellus miles</i> | 53 | 0 | 0 | 80 | 133 | 8 | 0 | 0 | 9 |
| Latham's Snipe <i>Gallinago hardwickii</i> | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| Pacific Gull <i>Larus pacificus</i> | 104 | 147 | 14 | 114 | 379 | 32 | 38 | 6 | 44 |
| Kelp Gull <i>Larus dominicanus</i> | 4 | 0 | 1 | 0 | 5 | 3 | 0 | 1 | 0 |
| Silver Gull <i>Larus novaehollandiae</i> | 674 | 240 | 1144 | 1622 | 3680 | 120 | 150 | 300 | 280 |
| Yellow-tailed Black-Cockatoo | 15 | 39 | 3 | 0 | 57 | 4 | 11 | 3 | 0 |

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|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|------------------------------|--|--|--|--|
| <i>Calyporhynchus funereus</i> | | | | | | | | | |
| Sulphur-crested Cockatoo <i>Cacatua galerita</i> | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 |
| Green Rosella <i>Platycercus caledonicus</i> | 16 | 9 | 15 | 6 | 46 | 3 | 3 | 4 | 2 |
| Blue-winged Parrot <i>Neophema chrysostoma</i> | 23 | 6 | 0 | 0 | 29 | 4 | 2 | 0 | 0 |
| Shining Bronze-Cuckoo <i>Chrysococcyx lucidus</i> | 3 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 |
| Pallid Cuckoo <i>Casomantis pallidus</i> | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 |
| Fan-tailed Cuckoo <i>Cacomantis flabelliformis</i> | 5 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 0 |
| Laughing Kookaburra <i>Dacelo novaeguineae</i> | 17 | 6 | 7 | 5 | 35 | 2 | 2 | 2 | 2 |
| Superb Fairy-wren <i>Amblyornis newtonianus</i> | 15 | 51 | 16 | 2 | 84 | 3 | 4 | 6 | 1 |
| Brown Thornbill <i>Acanthiza pusilla</i> | 0 | 6 | 5 | 0 | 11 | | 4 | 5 | 0 |
| Striated Pardalote <i>Pardalotus striatus</i> | 18 | 0 | 0 | 0 | 18 | 2 | 0 | 0 | 0 |
| Yellow-throated Honeyeater <i>Lichenostomus flavicollis</i> | 3 | 2 | 0 | 0 | 5 | 1 | 1 | 0 | 0 |
| Little Wattle-bird <i>Anthochaera chrysoptera</i> | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| Crescent Honeyeater <i>Phlidonyris pyrrhoptera</i> | 11 | 0 | 2 | 0 | 13 | 3 | 0 | 2 | 0 |
| Black-faced Cuckoo-shrike <i>Coracina novaehollandiae</i> | 3 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 |
| Golden Whistler <i>Pachycephala pectoralis</i> | 5 | 2 | 0 | 0 | 7 | 1 | 1 | 0 | 0 |
| Grey Shrike-thrush <i>Colluricincla harmonica</i> | 20 | 8 | 1 | 1 | 30 | 3 | 3 | 1 | 1 |
| Grey Butcherbird <i>Cracticus torquatus</i> | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 1 |
| Australian Magpie <i>Gymnorhina tibicen</i> | 17 | 6 | 6 | 18 | 47 | 3 | 2 | 2 | 3 |
| Grey Fantail <i>Rhipidura albiscapa</i> | 11 | 2 | 1 | 3 | 17 | 1 | 1 | 1 | 1 |
| Forest Raven <i>Corvus tasmanicus</i> | 509 | 275 | 979 | 1357 | 3120 | 22 | 38 | 45 | 88 |
| Dusky Robin <i>Melanodryas vittata</i> | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 3 | 0 |
| Scarlet Robin <i>Petroica boodang</i> | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 2 |

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|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|------------------------------|--|--|--|--|
| Eurasian Skylark <i>Alauda arvensis</i> | 66 | 18 | 13 | 38 | 135 | 2 | 2 | 10 | 5 |
| Silvereye <i>Zosterops lateralis</i> | 0 | 0 | 6 | 0 | 6 | 0 | 0 | 6 | 0 |
| Welcome Swallow <i>Hirundo neoxena</i> | 64 | 23 | 12 | 25 | 124 | 6 | 8 | 5 | 6 |
| Tree Martin <i>Petrochelidon nigricans</i> | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 |
| Common Blackbird <i>Turdus merula</i> | 16 | 2 | 0 | 0 | 18 | 2 | 1 | 0 | 0 |
| Common Starling <i>Sturnus vulgaris</i> | 204 | 989 | 1047 | 2911 | 5151 | 8 | 250 | 250 | 500 |
| Australasian Pipit <i>Anthus australis</i> | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| European Goldfinch <i>Carduelis carduelis</i> | 35 | 80 | 256 | 165 | 536 | 15 | 19 | 50 | 35 |

Discussion

Common Starlings were observed singly, in small flocks and in large flocks during the winter survey. Four flocks of approximately 500 Starlings were recorded foraging in open paddocks. This behaviour suggests that, while most Starlings were still in winter flocks, a small proportion were foraging singly or in pairs as this species does during the breeding season.

Forest Ravens were recorded from the whole site as in previous surveys and were actively foraging in open paddocks. Many ravens were attracted to the Circular Head Council landfill site where they were scavenging for food or roosting in trees nearby. A flock of 88 Ravens was recorded from survey point 2, close to the landfill site, on 13 August 2018. Improved management of the Circular Head Council landfill site is likely to reduce the number of ravens and gull species recorded on the proposed Wind Farm Site.

Silver Gulls were closely associated with both the landfill site and the farm dams, with most gulls recorded at survey point 2. This point is within 100m of the Circular Head Council landfill site and also within 200m of two farm dams on the 'Wells' property. A new farm dam was constructed in autumn 2018 to the southwest of an existing dam and this new dam is now full of water. The behaviour of both gull species has changed and now Silver Gulls and Pacific Gulls are roosting and washing in the new farm dam. The flight path of the gulls has also changed as most gulls were observed flying between the landfill site and the new farm dam, and the existing dam was not used by the two gull species during the winter survey. The maximum number of Silver Gulls recorded at any one time during the winter survey was 280.

Pacific Gulls (*Larus pacificus*) were mostly recorded at survey point 2 and were using the landfill site to scavenge for food and the new farm dam to roost and wash. The maximum

number of Pacific Gulls recorded at any one time during the winter survey was 44. The count of 44 Pacific Gulls in winter was similar to the number recorded during the spring and summer surveys. During the autumn survey the maximum count of Pacific Gulls was 6. With the limited survey data, it is not possible to determine whether the low numbers recorded during autumn was a seasonal shift in foraging behaviour or not.

A single Wedge-tailed Eagle (*Aquila audax subsp. fleayi*) was recorded from survey point 1 on 13/8/2018 and two eagles were recorded flying together from this point on 16/8/2018. At survey point 5, single eagles were recorded on 15/8/18 and 16/8/2018. At survey point 6 two eagles were recorded fly together on the 13/8/2018. The pair of Wedge-tailed Eagles recorded from survey point 6 were observed doing the 'pot-hook' display. The maximum number of movements for Wedge-tailed Eagles during spring was 2, summer 3, autumn 11 and winter 7. This species has large home ranges and can fly great distances and therefore could be potentially observed on any part of the proposed wind farm site.

During the winter surveys, two White-bellied Sea-Eagles (*Haliaeetus leucogaster*) were recorded, both from survey point 4. On 12/8/18, a single eagle was observed feeding on the ground in the middle of a paddock. The food item was most likely scavenged from the landfill site. On 16/8/18, a single White-bellied Sea-Eagle was recorded flying from survey point 4. The total 'number of movements' per season for White-bellied Sea-Eagles were spring 1, summer 8, autumn 1 and winter 2.

A single Grey Goshawk (*Accipiter novaehollandiae*) was recorded during the winter survey. This species was not recorded during the spring and summer surveys. A total of five Grey Goshawks were recorded during the autumn survey. The records of Grey Goshawk during autumn and winter suggest that this species is using the site for foraging during the non-breeding season. In autumn and winter, some Grey Goshawks are known to disperse outside their breeding range.

Yellow-tailed Black Cockatoos (*Calyptorhynchus funereus*) were not recorded during the winter survey period. This species had the highest 'number of movements' in summer (39), with 15 recorded in spring and only 3 during autumn. This suggests there is possibly a seasonal movement of Yellow-tailed Black Cockatoos in this area.

Australian Shelducks (*Tadorna tadornoides*) were recorded in low numbers during the spring and summer surveys, with 8 and 2 recorded respectively. During the autumn survey, 113 Australian Shelducks were recorded and during the winter 217. This species appears to breed once winter rains produced fresh pasture, and usually nest in a large hollow high in a tree. The greater number of Australian Shelducks recorded during the autumn and winter survey suggest that the site may be used as a foraging and breeding area, or possibly just for foraging prior to breeding. Many of the birds observed on the ground during the winter survey period were resting or foraging in pairs.

The lower diversity of bird species recorded during the winter survey was expected as the majority of the winter migrants had not yet returned to Tasmania for the summer breeding season.