

Short Communications

Food of Some Birds in Eastern New South Wales: Additions to Barker & Vestjens

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Barker & Vestjens (1989, 1990) provide a comprehensive survey of the foods of Australian birds. During the period 1986–92 (mainly 1988–92), I recorded incidental observations on the foods eaten by birds at various sites in eastern New South Wales (a small number of records from south-eastern Queensland are also included). Records additional to those in Barker & Vestjens (1989, 1990) are presented here (see Appendix 1).

Methods

All records are of direct field observations; no analysis of gut contents, pellets or faecal matter was undertaken. A small number of unpublished records by other observers are also included (the observers' name is included after the record in brackets). Full details of each record are held by the author.

All identifications of foods were made by the author, except for invertebrates which were kindly identified by staff of the CSIRO Division of Entomology, Canberra.

Authorities for the taxonomy used for the groups dealt with in the Appendix are as follows: plants – Hnatiuk (1990) and Lord & Willis (1982) (for species cultivated in Australia); and invertebrates – CSIRO (1970) (and information supplied by staff of the CSIRO Division of Entomology, Canberra).

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References

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Appendix 1 Layout of the Appendix basically follows that used by Barker & Vestjens (1989, 1990). The headings 'animal material' and 'plant material' are presented as 'A' and 'P' respectively, and the layout of the subheadings condensed. For food records, introduced species are marked with a dagger (†); in addition, indigenous plant species not native to the area the observation was made are marked with a hash (#) (this applies mainly to cultivated plants). The abbreviation 'cv' as part of a plant name designates a recognised cultivar (usually of hybrid origin). For observations from south-eastern Queensland, the abbreviation 'QLD' is included in brackets after the record. Bird nomenclature follows Schodde *et al.* (1978).

White-faced Heron *Ardea novaehollandiae*

A; Arthropoda, Insecta, Orthoptera: Acrididae (grasshoppers), *Austroicetes* spp. – nymphs, *Phaulacridium vittatum* – nymphs, *Praxibulus* sp. – nymphs.

Sacred Ibis *Threskiornis aethiopica*

P; Dicotyledons, Anacardiaceae: † *Mangifera indica* – fruit (G. Roberts) (QLD).

Brown Goshawk *Accipiter fasciatus*

A; Chordata, Aves, Cacatuidae: *Cacatua galerita* – adult (J. Lepschi).
Grallinidae: *Grallina cyanoleuca* – nestling.

Peregrine Falcon *Falco peregrinus*

A; Chordata, Aves, Platycercidae: *Melopsittacus undulatus* – adult (J. Bounds).

Australian Hobby *Falco longipennis*

A; Arthropoda, Insecta, Coleoptera, Scarabaeidae (scarab beetles): *Anoplognathus* sp. – adults.

Australian Kestrel *Falco cenchroides*

A; Chordata, Aves, Cacatuidae: *Cacatua roseicapilla* – carrion.

Dusky Moorhen *Gallinula tenebrosa*

P; Monocotyledons, Lemnaceae: *Spirodela punctata* – whole plants (QLD);
Poaceae: † *Pennisetum clandestinum* – leaves.

Purple Swamphen *Porphyrio porphyrio*

P; Monocotyledons, Poaceae: *Hemarthria uncinata* var. *uncinata* – rhizomes, † *Pennisetum clandestinum* – leaves.

Coot *Fulica atra*

P; Monocotyledons, Poaceae: † *Pennisetum clandestinum* – leaves.

Feral Pigeon *Columba livia*

P; Dicotyledons, Fagaceae: † *Quercus palustris* – damaged seed.

Common Bronzewing *Phaps chalcoptera*

P; Dicotyledons, Mimosaceae: *Acacia parramattensis* – seed; Myrtaceae: † *Melaleuca parvistaminea* – seed.

Gang-gang Cockatoo *Callocephalon fimbriatus*

P; Gymnosperms, Cupressaceae: † *Cupressus semipervirens* – seed. Dicotyledons, Hamamelidaceae: † *Liquidambar styraciflua* – seed; Mimosaceae: † *Acacia baileyana* – seed, *Acacia mearnsii* – seed; Myrtaceae: *Eucalyptus albens* – seed, *Eucalyptus bridgesiana* – seed, *Eucalyptus dives* – seed, *Eucalyptus melliodora* – seed, † *Eucalyptus globulus* subsp. *globulus* – seed.

Galah *Cacatua roseicapilla*

P; Monocotyledons, Poaceae: † *Avena* sp. – seed, † *Pennisetum clandestinum* – rhizomes, stolons. Dicotyledons, Asteraceae: † *Arctotheca calendula* – flowers, † *Hypochaeris radicata* – flowers, † *Silybum marianum* – seed, † *Taraxacum* sp. – seed; Betulaceae: † *Betula pendula* – seed; Brassicaceae: † *Capsella bursa-pastoris* – seed; Caryophyllaceae: † *Cerastium glomeratum* – flowers, leaves, seed; Geraniaceae: *Erodium cicutarium* – seed; Plantaginaceae: † *Plantago lanceolata* – seed; Rosaceae: † *Crataegus monogyna* – seed, † *Prunus armeniaca* – flowers.

Sulphur-crested Cockatoo *Cacatua galerita*

P; Gymnosperms, Cupressaceae: † *Callitris rhomboidea* – seed (J. Walker), † *Cupressus semipervirens* – seed. Dicotyledons, Asteraceae: † *Arctotheca calendula* – roots, † *Cirsium vulgare* – flowers, seed, † *Hypochaeris glabra* – roots, † *Hypochaeris radicata* – roots; Boraginaceae: † *Echium plantagineum* – roots; Cucurbitaceae: † *Citrullus lanatus* – seed; Meliaceae: † *Melia azedarach* – seed; Mimosaceae: † *Acacia baileyana* – seed; Myrtaceae: † *Eucalyptus globulus* subsp. *globulus* – flower buds, seed; Onagraceae: † *Oenothera stricta* – roots; Plantaginaceae: † *Plantago lanceolata* – roots; Rosaceae: † *Pyracantha angustifolia* – seed.

Pink Cockatoo *Cacatua leadbeateri*

P; Dicotyledons, Pedaliaceae: † *Proboscidea louisianica* – seed (A. Slee).

Rainbow Lorikeet *Trichoglossus haematodus*

P; Monocotyledons, Areaceae: *Archontophoenix cunninghamiana* – flowers (QLD). Dicotyledons, Casuarinaceae: *Casuarina equisetifolia* subsp. *incana* – seed (QLD).

Scaly-breasted Lorikeet *Trichoglossus chlorolepidotus*

P; Dicotyledons, Myrtaceae: *Melaleuca quinquenervia* – nectar.

Little Lorikeet *Glossopsitta pusilla*

P; Dicotyledons, Myrtaceae: *Eucalyptus albens* – nectar, *Eucalyptus bridgesiana* – nectar, *Eucalyptus sideroxylon* subsp. *sideroxylon* – nectar.

Australian King Parrot *Aisterus scapularis*

P; Gymnosperms, Pinaceae: † *Cedrus atlantica* cv 'Glaucua' – foliage, seed. Dicotyledons, Hamamelidaceae: † *Liquidambar styraciflua* – leaf buds; Loranthaceae: *Amyema* sp. – fruit; Meliaceae: † *Melia azedarach* – seed; Myrtaceae: † *Melaleuca decora* – seed; Rosaceae: † *Pyracantha angustifolia* – seed; Santalaceae: *Exocarpos cupressiformis* – seed (J. Butt).

Crimson Rosella *Platycercus elegans*

P; Gymnosperms, Cupressaceae: † *Cupressus arizonica* – seed, † *Cupressus macrocarpa* – seed, † *Cupressus semipervirens* – seed, † *Thuja orientalis* – seed. Monocotyledons, Cyperaceae: *Lepidosperma laterale*

sens. lat. – seed; Poaceae: † *Avena* sp. – seed, † *Poa annua* – seed. Dicotyledons, Asteraceae: † *Arctotheca calendula* – flowers, seed, leaf midrib, † *Carthamus lanatus* – flowers, seed, † *Conyza albida* – flowers, † *Conyza bonariensis* – seed, † *Gnaphalium purpureum* – leaves, seed, stems, † *Hypochaeris radicata* – flowers, † *Lactuca serriola* – seed; Betulaceae: † *Betula pendula* – exfoliating outer bark, seed; Brassicaceae: † *Hirschfeldia incana* – seed; Caryophyllaceae: † *Cerastium glomeratum* – flowers, † *Paronychia brasiliensis* – seed; Casuarinaceae: *Allocasuarina verticillata* – seed, *Casuarina cunninghamiana* subsp. *cunninghamiana* – seed; Chenopodiaceae: † *Chenopodium album* – seed; Clusiaceae: † *Hypericum perforatum* – seed; Epacridaceae: *Melichrus urceolatus* – flowers (J. Walker); Fagaceae: † *Quercus palustris* – seed; Geraniaceae: *Geranium retrorsum* – seed; Hamamelidaceae: † *Liquidambar styraciflua* – seed; Lamiaceae: † *Lavandula stoechas* – seed, † *Salvia verbenaca* – seed; Loranthaceae: *Amyema miquelii* – fruit, *Muelleria eucalyptoides* – fruit; Lythraceae: *Lythrum salicaria* – seed; Meliaceae: † *Melia azedarach* – seed; Mimosaceae: † *Acacia baileyana* – flower buds, seed, *Acacia dealbata* – flower buds, seed, *Acacia mearnsii* – leaves, *Acacia melanoxylon* – seed; Moraceae: † *Morus nigra* – fruit; Myrtaceae: † *Angophora costata* subsp. *costata* – seed, † *Angophora hispida* – seed, † *Baeckea virgata* var. *virgata* – seed, † *Callistemon citrinus* – seed, *Callistemon sieberi* – seed, † *Eucalyptus amplifolia* – seed, *Eucalyptus blakelyi* – seed, *Eucalyptus bridgesiana* – seed, † *Eucalyptus cinerea* – seed, *Eucalyptus dives* – seed, † *Eucalyptus elata* – seed, *Eucalyptus fastigata* – seed, † *Eucalyptus globulus* subsp. *globulus* – seed, *Eucalyptus mannifera* – seed, *Eucalyptus melliodora* – seed, † *Eucalyptus pulverulenta* – seed, *Eucalyptus radiata* subsp. *robertsonii* – seed, *Eucalyptus rossii* – seed, *Eucalyptus rubida* – seed, † *Eucalyptus saligna* – seed, † *Eucalyptus sclerophylla* – seed, † *Eucalyptus watsoniana* – seed, *Kunzea ericoides* sens. lat. – seed, † *Leptospermum polygalifolium* sens. lat. – seed, † *Melaleuca ericifolia* – seed; Onagraceae: † *Oenothera stricta* – seed; Pittosporaceae: *Bursaria lasiophylla* var. *lasiophylla* – seed; Platanaceae: † *Platanus x hispanica* – seed; Polygonaceae: † *Polygonum aviculare* – seed; Proteaceae: † *Grevillea arenaria* – flowers, † *Grevillea* cv 'Canberra Gem' – flowers, † *Grevillea* cv 'Poorinda Royal Mantle' – flowers, † *Grevillea rosmarinifolia* – flowers; Rosaceae: † *Cotoneaster pannosus* – seed, † *Cotoneaster microphyllus* – seed, † *Prunus armeniaca* – flowers, † *Prunus cerasifera* – flowers, old seed, † *Pyracantha angustifolia* – seed, † *Pyracantha fortuneana* – seed; Rutaceae: † *Correa* spp. – flowers (J. Walker); Santalaceae: *Exocarpos cupressiformis* – seed; Solanaceae: † *Solanum nigrum* – seed; Ulmaceae: † *Ulmus parvifolia* – seed, † *Zeakova serrata* – leaves.

Eastern Rosella *Platycercus eximius*

P; Monocotyledons, Poaceae: † *Avena* sp. – seed, † *Digitaria sanguinalis* – seed, † *Phalaris aquatica* – seed, † *Poa annua* – seed. Dicotyledons, Asteraceae: † *Arctotheca calendula* – seed, † *Hypochaeris radicata* – flowers, *Senecio lautus* sens. lat. – flowers, † *Taraxacum* sp. – seed; Betulaceae: † *Betula pendula* – seed; Brassicaceae: † *Sisymbrium erylisoides* – seed; Caryophyllaceae: † *Cerastium glomeratum* – flowers, leaves, seed; Chenopodiaceae: † *Chenopodium album* – seed, *Maireana microphylla* – seed; Fagaceae: † *Quercus palustris* – seed; Mimosaceae: † *Acacia baileyana* – seed, *Acacia dealbata* – seed, *Acacia implexa* – seed; Rosaceae: † *Cotoneaster pannosus* – seed, † *Pyracantha angustifolia* – seed, † *Pyracantha fortuneana* – seed; Rutaceae: † *Coleonema pulchrum* – flower buds, leaves, seed; Ulmaceae: † *Zeakova serrata* – leaves.

Pale-headed Rosella *Platycercus adscitus*

P; Dicotyledons, Amaranthaceae: † *Gomphrena celosioides* – flowers, seed (QLD); Caesalpiniaceae: † *Caesalpinia ferrea* – flower buds (QLD).

Red-rumped Parrot *Psephotus haematonotus*

P; Monocotyledons, Poaceae: † *Avena* sp. – seed. Dicotyledons, Asteraceae: † *Arctotheca calendula* – leaf midrib, *Vittadinia muelleri* – seed;

- Fagaceae: † *Quercus palustris* – damaged seed; Polygonaceae: † *Polygonum aviculare* – seed, *Rumex brownii* – seed.
- White-throated Needletail** *Hirundapus caudacutus*
A; Arthropoda, Insecta, Hymenoptera, Formicidae (ants): *Pheidole* sp. – alate adults.
- Sacred Kingfisher** *Halcyon sancta*
A; Arthropoda, Insecta, Hemiptera, Cicadidae (cicadas): *Psaltoda moerens* – adults; Diptera, Calliphoridae (blowflies): *Calliphora augur* – adults.
- Rainbow Bee-eater** *Merops ornatus*
A; Arthropoda, Insecta, Lepidoptera, Nymphalidae (admiral and brown butterflies): *Vanessa itea* – adult.
- Tree Martin** *Cecropis nigricans*
A; Arthropoda, Insecta, Hymenoptera, Formicidae (ants): *Pheidole* sp. – alate adults.
- Black-faced Cuckoo-shrike** *Coracina novaehollandiae*
P; Dicotyledons, Moraceae: † *Morus nigra* – fruit.
A; Arthropoda, Insecta, Orthoptera, Acrididae (grasshoppers): *Austroicetes* spp. – adults, nymphs, *Phaulacidium vittatum* – adults, nymphs, *Praxibulus* sp. – adults, nymphs.
- Blackbird** *Turdus merula*
P; Dicotyledons, Grossulariaceae: † *Ribes sativum* – fruit (J. Lepesch); Rosaceae: † *Prunus cerasifera* – fruit, † *Pyracantha angustifolia* – fruit, † *Pyracantha fortuneana* – fruit.
- Flame Robin** *Petroica phoenicia*
A; Arthropoda, Insecta, Diptera, Tabanidae (horseflies): – adult.
- Eastern Yellow Robin** *Eopsaltria australis*
A; Arthropoda, Insecta, Orthoptera, Acrididae (grasshoppers): *Phaulacidium vittatum* – adult.
- Crested Shrike-tit** *Falconulus frontatus*
A; Arthropoda, Insecta, Coleoptera, Scarabaeidae (scarab beetles): *Anoplognathus* sp. – adult; Lepidoptera, Pieridae (white and yellow butterflies): *Delias harpalyce* – larva.
- Golden Whistler** *Pachycephala pectoralis*
A; Arthropoda, Insecta, Phasmatodea, Phasmatidae (stick insects): – adult.
- Rufous Whistler** *Pachycephala rufiventris*
A; Arthropoda, Insecta, Orthoptera, Tettigoniidae (katydids): *Caedicia* sp. – adult.
- Satin Flycatcher** *Myiagra cyanooleuca*
A; Arthropoda, Insecta, Diptera, Asilidae (robber flies): – adult.
- Grey Fantail** *Rhipidura fuliginosa*
A; Arthropoda, Insecta, Hymenoptera, Formicidae (ants): *Pheidole* sp. – alate adults.
- Willie Wagtail** *Rhipidura leucophrys*
A; Arthropoda, Insecta, Coleoptera, Staphylinidae (rove beetles): – adult; Diptera, Calliphoridae (blowflies): *Calliphora stygia* – adults; Muscidae (muscid flies): *Australophya rostrata* – adults, *Musca domestica* – adults; Lepidoptera, Lycaenidae (blue, copper and hairstreak butterflies): *Zizina labradus* – adults; Nymphalidae (admiral and brown butterflies): *Heteronympha merope merope* – adult, *Vanessa itea* – adult.
- Superb Fairy-wren** *Malurus cyaneus*
A; Arthropoda, Insecta, Isoptera, Rhinotermitidae (termites): *Coptotermes* sp. – adults (soldiers, workers); Hemiptera, Aphididae (aphids): † *Aphis spireacola* – adults, † *Tinocallis ulmiparvifoliae* – adults, nymphs; Diptera, Calliphoridae (blowflies): † *Lucilia cuprina* – torpid adults, pupae.
- White-browed Scrubwren** *Sericornis frontalis*
A; Arthropoda, Insecta, Lepidoptera, Noctuidae (armyworm moths): – adult.
- Inland Thornbill** *Acanthiza apicalis*
A; Arthropoda, Insecta, Hemiptera, Coccoidea (scale insects) – adults.
- Buff-rumped Thornbill** *Acanthiza reguloides*
A; Arthropoda, Insecta, Hymenoptera, Formicidae (ants): *Pheidole* sp. – alate adults.
- Yellow-rumped Thornbill** *Acanthiza chrysorrhoa*
A; Arthropoda, Insecta, Hemiptera, Aphididae (aphids): † *Tinocallis ulmiparvifoliae* – adults, nymphs.
- Varied Sittella** *Daphoenositta chrysoptera*
A; Arthropoda, Insecta, Hymenoptera, Formicidae (ants): *Pheidole* sp. – alate adults.
- Red Wattlebird** *Acanthochaera carunculata*
P; Monocotyledons, Agavaceae: † *Cordylone australis* – fruit, † *Phormium tenax* – nectar. Dicotyledons, Myrtaceae: # *Callistemon citrinus* – nectar, # *Eucalyptus cinerea* – nectar, *Eucalyptus melliodora* – nectar, # *Eucalyptus pulverulenta* – nectar; Proteaceae: # *Banksia ericifolia* – nectar, # *Banksia robur* – nectar, # *Grevillea* cv “Canberra Gem” – nectar, # *Grevillea robusta* – nectar, # *Grevillea rosmarinifolia* – nectar; Rosaceae: † *Malus domestica* – juice from damaged fruit, † *Prunus armeniaca* – nectar, † *Prunus persica* – nectar, *Rubus parvifolius* – fruit; Rutaceae: # *Correa* cv “Dusky Bells” – nectar.
A; Arthropoda, Insecta, Lepidoptera, Noctuidae (armyworm moths): *Agrotis infusa* – adult; Hymenoptera, Formicidae (ants): *Pheidole* sp. – alate adults.
- Spiny-cheeked Honeyeater** *Acanthogenys rufogularis*
P; Dicotyledons, Loranthaceae: *Amyema maidenii* subsp. *maidenii* – nectar.
- Striped Honeyeater** *Plectorhyncha lanceolata*
P; Dicotyledons, Myrtaceae: *Eucalyptus sideroxylon* subsp. *sideroxylon* – nectar.
- Noisy Friarbird** *Philemon corniculatus*
P; Monocotyledons, Agavaceae: † *Phormium tenax* – nectar. Dicotyledons, Loranthaceae: *Amyema miquelii* – nectar; Myrtaceae: # *Callistemon citrinus* – nectar, *Eucalyptus albens* – nectar, *Eucalyptus melliodora* – nectar, *Eucalyptus sideroxylon* subsp. *sideroxylon* – nectar; Proteaceae: *Grevillea arenaria* – nectar, # *Grevillea* cv “Ivanhoe” – nectar; Rosaceae: † *Rubus fruticosus* sp. agg. – fruit.
A; Arthropoda, Insecta, Orthoptera, Acrididae (grasshoppers): *Austroicetes* spp. – nymphs, *Phaulacidium vittatum* – nymphs, *Praxibulus* sp. – nymphs; Phasmatodea, Phasmatidae (stick insects): – adult; Hemiptera, Cicadidae (cicadas): *Psaltoda moerens* – adult; Coleoptera, Lycidae (soldier beetles): *Chaulioognathus lubugris* – adults.
- Little Friarbird** *Philemon citreogularis*
A; Arthropoda, Insecta, Coleoptera, Scarabaeidae (scarab beetles): *Anoplognathus* sp. – adults.
- Noisy Miner** *Manorina melanocephala*
P; Dicotyledons, Myrtaceae: *Callistemon citrinus* – nectar, *Eucalyptus albens* – nectar; Solanaceae: † *Solanum nigrum* – fruit.
- Yellow-throated Miner** *Manorina flavigula*
P; Dicotyledons, Myoporaceae: *Eremophila longifolia* – nectar.
- Lewin's Honeyeater** *Meliphaga lewinii*
P; Monocotyledons, Smilacaceae: *Eustrephus latifolius* – fruit.
- Yellow-faced Honeyeater** *Lichenostomus chrysops*
P; Dicotyledons, Loranthaceae: *Amyema miquelii* – nectar, *Amyema pendulum* – nectar; Proteaceae: *Grevillea diminuta* – nectar, # *Grevillea* cv “Canberra Gem” – nectar, # *Grevillea* cv “Ivanhoe” – nectar, *Grevillea lanigera* – nectar, *Grevillea victoriae* sens. lat. – nectar.
A; Arthropoda, Insecta, Hemiptera, Aphididae (aphids): † *Tinocallis ulmiparvifoliae* – adults, nymphs.

White-eared Honeyeater *Lichenostomus leucotis*

P; Dicotyledons, Epacridaceae: *Melichrus urceolatus* – nectar (I. Anderson);
Thymelaeaceae: † *Daphne odorata* – nectar.

White-plumed Honeyeater *Lichenostomus penicillatus*

P; Dicotyledons, Loranthaceae: *Amyema maidenii* subsp. *maidenii* – nectar;
Myrtaceae: *Eucalyptus albens* – nectar.

A; Arthropoda, Insecta, Hemiptera, Aphididae (aphids): † *Tinocallis ulmiparvifoliae* – adults, nymphs.

Brown-headed Honeyeater *Melithreptus brevirostris*

P; Dicotyledons, Fabaceae: † *Cytisus prolifer* – nectar.

Brown Honeyeater *Lichmera indistincta*

P; Dicotyledons, Myrtaceae: *Melaleuca styphelioides* var. *styphelioides* – nectar.

New Holland Honeyeater *Phylidonyris novaehollandiae*

P; Dicotyledons, Loranthaceae: *Muellerina eucalyptoides* – nectar; Myrtaceae: # *Callistemon citrinus* – nectar; Proteaceae: # *Banksia conferta* var. *conferta* – nectar, *Banksia paludosa* – nectar, # *Banksia robur* – nectar, *Banksia spinulosa* var. *spinulosa* – nectar.

Tawny-crowned Honeyeater *Phylidonyris melanops*

P; Dicotyledons, Proteaceae: *Banksia serrata* – nectar.

Eastern Spinebill *Acanthorhynchus tenuirostris*

P; Dicotyledons, Chenopodiaceae: *Einadia nutans* subsp. *nutans* – fruit; Epacridaceae: *Melichrus urceolatus* – nectar, *Styphelia triflora* – nectar, *Styphelia tubiflora* – nectar; Fabaceae: † *Cytisus prolifer* – nectar; Loranthaceae: *Amyema cambageii* – nectar, *Muellerina eucalyptoides* – nectar; Myrtaceae: # *Callistemon citrinus* – nectar; Proteaceae: *Banksia spinulosa* var. *spinulosa* – nectar, *Grevillea lanigera* – nectar, # *Grevillea jephsonii* – nectar, *Grevillea victoriae* sens. lat. – nectar; Thymelaeaceae: # *Daphne odorata* – nectar.

A; Arthropoda, Insecta, Coleoptera, Lycidae (soldier beetles): *Chauliognathus lubugris* – adults.

Silvereye *Zosterops lateralis*

P; Monocotyledons, Agavaceae: † *Cordylone australis* – fruit. Dicotyledons, Caprifoliaceae: † *Sambucus nigra* – fruit; Ericaceae: † *Arbutus unedo* – fruit; Myrtaceae: # *Grevillea* cv "Canberra Gem" – nectar; Proteaceae: # *Callistemon citrinus* – nectar; Solanaceae: † *Lycium ferocissimum* – fruit.

A; Arthropoda, Insecta, Hemiptera, Aphididae (aphids): † *Tinocallis ulmiparvifoliae* – adults, nymphs.

European Goldfinch *Carduelis carduelis*

P; Monocotyledons, Poaceae: † *Aira cupaniana* – seed. Dicotyledons, Casuarinaceae: *Allocasuarina verticillata* – seed, *Casuarina cunninghamiana* subsp. *cunninghamiana* – seed.

House Sparrow *Passer domesticus*

P; Monocotyledons, Agavaceae: † *Cordylone australis* – fruit; Poaceae: † *Phalaris aquatica* – seed.

A; Arthropoda, Insecta, Orthoptera, Acrididae (grasshoppers) – adult; Hymenoptera, Formicidae (ants): *Pheidole* sp. – alate adults.

Red-browed Firetail *Emblema temporalis*

P; Monocotyledons, Poaceae: *Bothriochloa macra* – seed, *Danthonia caespitosa* – seed, † *Eragrostis neomexicana* – seed, † *Phalaris aquatica* – seed, † *Setaria gracilis* var. *pauciseta* – seed. Dicotyledons, Betulaceae: † *Betula pendula* – seed; Casuarinaceae: *Allocasuarina verticillata* – seed.

Diamond Firetail *Emblema guttata*

P; Monocotyledons, Poaceae: † *Avena* sp. – seed.

Common Starling *Sturnus vulgaris*

P; Monocotyledons, Agavaceae: † *Cordylone australis* – fruit; Fabaceae: † *Sophora japonica* – fruit; Moraceae: † *Morus alba* – fruit, † *Morus nigra* – fruit; Rosaceae: † *Malus* sp. – fruit, † *Prunus cerasifera* – fruit, †

Pyracantha angustifolia – fruit, † *Pyracantha fortuneana* – fruit, † *Pyrus communis* – fruit.

A; Arthropoda, Insecta, Hemiptera, Aphididae (aphids): † *Tinocallis ulmiparvifoliae* – adults, nymphs; Coleoptera, Lycidae (soldier beetles): *Chauliognathus lubugris* – adults; Diptera, Calliphoridae (blowflies): † *Lucilia cuprina* – torpid adults; Hymenoptera, Formicidae (ants): *Myrmecia* sp. – adults.

Common Mynah *Acridotheres tristis*

P; Dicotyledons, Asteraceae: † *Sonchus oleraceus* – flower buds; Ericaceae: † *Arbutus unedo* – fruit; Rosaceae: † *Malus* sp. – fruit, † *Prunus domestica* subsp. *domestica* – fruit.

A; Arthropoda, Insecta, Hemiptera, Cicadidae (cicadas): – adult.

Olive-backed Oriole *Oriolus sagittatus*

P; Dicotyledons, Araliaceae: † *Hedera helix* – fruit (D. Purchase); Moraceae: † *Morus alba* – fruit, † *Morus nigra* – fruit.

Satin Bowerbird *Ptilonorhynchus violaceus*

P; Dicotyledons, Caryophyllaceae: † *Cerastium glomeratum* – flowers, fruits (H. Possingham).

Australian Magpie-lark *Grallina cyanoleuca*

A; Arthropoda, Insecta, Orthoptera; Acrididae (grasshoppers): *Gastrimargus musculus* – adult; Diptera, Calliphoridae (blowflies): † *Lucilia cuprina* – torpid adults; Tabanidae (horseflies): – adult.

White-browed Woodswallow *Artamus superciliosus*

A; Arthropoda, Insecta, Orthoptera, Acrididae (grasshoppers): *Austroicetes* spp. – adults, nymphs, *Phaulacridium vittatum* – adults, nymphs, *Praxibulus* sp. – adults, nymphs; Coleoptera, Scarabaeidae (scarab beetles): *Anoplognathus* sp. – adults.

Grey Butcherbird *Cracticus torquatus*

A; Arthropoda, Insecta, Orthoptera, Tettigoniidae (katydids) – adult.

Pied Butcherbird *Cracticus nigrogularis*

A; Arthropoda, Insecta, Orthoptera, Acrididae (grasshoppers): *Austroicetes* sp. – adults, nymphs, *Phaulacridium vittatum* – adults, nymphs, *Praxibulus* sp. – adults, nymphs. Chordata, Mammalia, Leporidae: † *Oryctolagus cuniculus* – carrion.

Australian Magpie *Gymnorhina tibicen*

P; Dicotyledons, Fabaceae: † *Trifolium repens* – fruit (legume).

A; Arthropoda, Insecta, Isoptera, Rhinotermitidae (termites): *Coptotermes* sp. – adults (soldiers, workers); Mantodea, Mantidae (praying mantids): *Tenodera australasiae* – nymph; Orthoptera, Acrididae (grasshoppers): *Austroicetes* spp. – adults, nymphs, *Phaulacridium vittatum* – adults, nymphs, *Praxibulus* sp. – adults, nymphs; Coleoptera, Lycidae (soldier beetles): *Chauliognathus lubugris* – adults; Diptera, Calliphoridae (blowflies): † *Lucilia cuprina* – larvae; Hymenoptera, Apidae (bees): † *Apis mellifera* – adult.

Pied Currawong *Strepera graculina*

P; Gymnosperms, Pinaceae: † *Cedrus atlantica* cv "Glauc" – damaged seed; Cupressaceae: † *Juniperus communis* – cones; Agavaceae: † *Cordylone australis* – fruit; Poaceae: † *Digitaria sanguinalis* – inflorescence, leaves, stems. Dicotyledons, Anacardiaceae: † *Rhus* sp. – fruit; Araliaceae: † *Hedera helix* – fruit; Ericaceae: † *Arbutus unedo* – fruit; Fabaceae: † *Sophora japonica* – fruit; Fagaceae: † *Quercus palustris* – damaged seed; Mimosaceae: † *Albizia julibrissin* – seed; Moraceae: † *Morus alba* – fruit, † *Morus nigra* – fruit; Rosaceae: † *Cotoneaster microphyllus* – fruit, † *Prunus cerasifera* – fruit, † *Pyracantha angustifolia* – fruit, † *Pyracantha fortuneana* – fruit; Solanaceae: † *Solanum nigrum* – fruit; Sterculiaceae: *Brachychiton populneum* subsp. *populneum* – seed; Vitaceae: † *Ampelopsis brevipedunculata* – fruit.

A; Arthropoda, Insecta, Hemiptera, Psyllidae (lerps) – lerps; Coreidae (squash bugs): *Mictis profana* – adults; Lepidoptera, Noctuidae (army-worm moths): *Agrotis infusa* – adult; Hymenoptera, Formicidae (ants):

Chaicoconera sp. – adults, *Pheidole* sp. – alate adults; Arachnida, Araneae, Lycosidae (wolf spiders) – adult. Chordata, Aves, Zosteropidae: *Zosterops lateralis* – nestling; Passeridae: † *Passer domesticus* – nestling. Mammalia, Canidae: † *Vulpes vulpes* – carrion.

Grey Currawong *Strepera versicolor*

P; Dicotyledons, Rosaceae: † *Pyracantha angustifolia* – fruit, † *Pyracantha fortuneana* – fruit.

Australian Raven *Corvus coronoides*

P; Dicotyledons, Moraceae: † *Morus alba* – fruit, † *Morus nigra* – fruit.
A; Arthropoda, Insecta, Isoptera, Rhinotermitidae (termites): *Coptotermes* sp. – adults (soldiers, workers); Orthoptera, Acrididae (grasshoppers): *Austroicetes* spp. – adults, nymphs, *Phaulacridium vittatum* – adults, nymphs, *Praxibulus* sp. – adults, nymphs; Coleoptera, Scarabaeidae (scarab beetles): *Anoplognathus* sp. – adult. Chordata, Mammalia, Muridae: *Rattus* sp. – adult.

The Effect of Prevailing Wind Direction and Tidal Flooding on the Reproductive Success of Pied Oystercatchers *Haematopus longirostris*

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Prevailing wind direction may influence nest site choice and reproductive success for some species of birds. Cactus Wrens *Campylorhynchus brunneicapillus* positioned nests in the direction of the wind to reduce thermoregulatory overheating (Facemire *et al.* 1990). Several species of raptors faced nests into the wind for the purpose of taking flight (Lokemoen & Duebbert 1976). However, nesting in the face of prevailing winds may be disadvantageous to shorebirds (Charadriiformes) that place eggs on the ground near the water edge. Winds may increase tidal height and wave action, particularly during spring tides and storms, flooding eggs and nest sites. (Hartwick 1974; Burger 1984; Pugh 1987; Lauro & Burger 1989; Bildstein *et al.* 1991). Yet, general nest location (e.g. in the lee of prevailing winds) or the topography of the nest site (e.g. nest elevation or distance to water) may provide protection from wind-induced tidal flooding. However, very little information is available on how the combination of habitat selection, winds and tides affect reproductive success of coastal birds. This is because destructive environmental events occur sporadically and are difficult to document.

Oystercatchers (Haematopodidae) are shorebirds that breed along the coastlines of the world (Hayman *et al.* 1986). Their nests may be vulnerable to the effects

of tidal flooding since they are often placed at close distances to the water edge at elevations just above the high tide line (Hartwick 1974; Lane 1987; Lauro & Burger 1989). This study examined how the general location of nests with respect to prevailing wind direction influenced tidal flooding and reproductive success of Pied Oystercatchers *Haematopus longirostris* at the Furneaux Islands, Bass Strait, Tasmania. The Bass Strait is located in the 'the roaring forties' and is known for its windy climate (Edgecombe 1986).

Methods

The study was conducted during the 1988–89 and 1989–90 field seasons at two main study sites: (1) on the west coast of Flinders Island (40°00'S, 148°00'E), the large Island of the Furneaux Group, from the area of Blue Rocks south to Fergusons Jetty; and (2) on Big Green Island (40°11'S, 147°59'E), a small island three kilometres west of the village of Whitemark on Flinders Island (Fig. 1). Nests on the west coast of Flinders Island were in the direct path of prevailing westerly winds while nests on Big Green Island were located mainly in the lee of winds.

In the 1988–89 field season, distance to the high tide line and elevation was measured at breeding sites