



TOOWOOMBA BIRD CLUB NEWSLETTER

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" TO ENCOURAGE THE OBSERVATION AND STUDY OF THE BIRDS OF THE TOOWOOMBA AREA."

No. 164 - September 1989.

From the Editor: Spring has well and truly arrived and the weather has been ideal for bird watching. I have had a Scarlet Honeyeater visiting my garden each day. It is attracted by the native flowering shrubs; so I have decided to plant some more species of natives in the hope of attracting different species of birds to my garden as this is the first sighting of a Scarlet Honeyeater in the garden.

The rest of this year is a busy one for the club with the Annual General Meeting on Tuesday 17th October and the Bird-a-thon on Sunday 22nd October. A nomination form is included with this newsletter. Some nominations have already been received but all positions are vacant. Please return form to the secretary prior to the meeting or bring it along on the night. Remember this year the meeting will be at the Toowoomba Education Centre commencing with drinks and nibbles at 7.00 p.m. followed by the meeting and election of office-bearers; followed by a film or slides. So come along for an enjoyable evening and support your club.

The Bird-a-thon will be held on Sunday 22nd October. Members are asked to obtain sponsors for the species count or give a donation. Members are also required for the actual spotting of species. Lunch will be held at the Waterbird Habitat where we will view the now completed notice-board.

T.B.C. Inc. members have been invited to visit the Helidon Spa/Caravan Park at any time to bird watch. Please check into the office on your arrival..The new managers are Aub and Sheree Funk.

The editor would welcome any birding articles from members who may be going on holidays in September or any item of interest that is bird related.

Report on Field Outing to Western Toowoomba - 27th August.

A sunny and almost windless morning encouraged 14 birders to venture out early for the club's August outing. An hour in the cemetery grounds yielded fewer birds than we had hoped for but our visit to the property of David and Kath Blackburn on the nearby Euston Road, ~~when~~ a pleasant walk along the grassy and hilly ground along Spring Creek, produced a fair variety - 49 species in all; a goodish number for Toowoomba's western perimeter in late winter. Of note were the Red Rumped Parrots busily and noisily checking out nesting hollows in old Eucalypts; a pair of Black Shouldered Kites quartering the area with some success; two flocks of Sacred Ibis caught in the sunlight as they wheeled and turned overhead and also a pair of Kestrels mating.

During the previous day's reconnoitre Lesley Beaton and I saw Tree Martins carrying nesting material into holes in the gum trees; a Brown Falcon harried by Magpies and a beautiful Eastern Rosella with a pale headed companion. Our thanks to Kath and David for an enjoyable morning and for inviting us to take our morning tea to their house.

Ann Shore

Toowoomba's Most Wanted. Have you seen them?

The records received my be up until August 29th show the following 62 bird species have NOT been seen this year. So please help and keep an eye open for them.

Little Egret	Black-tailed Native Hen	Little Bronze Cuckoo
Rufous Night Heron	Comb-crested Jacana	Barking Owl
Little Bittern	Painted Snipe	Barn Owl
Black Bittern	Golden Plover	White-throated Nightjar
Magpie Goose	Red-necked Avocet	Spotted Nightjar
Wandering Whistling Duck	Red-kneed Dotterel	Forest Kingfisher
Freckled Duck	Red-capped Plover	Red-backed Kingfisher
Australian Shelduck	Whimbrel	Noisy Pitta
Mallard	Marsh Sandpiper	White's Thrush
Cotton Pygmy-goose	Sharp-tailed Sandpiper	Scarlet Robin
Black Kite	Red-necked Stint	Satin Flycatcher
Red Goshawk	Curlew Sandpiper	Spotted Quail-thrush
Square Tailed Kite	Red-necked Phalarope	Little Grassbird
Black Falcon	Gull-billed Tern	Rufous Songlark
Stubble Quail	Caspian Tern	Brown Songlark
Little Button Quail	Sooty Tern	Apostlebird
Red-chested Button Quail	Wompoo Fruit-dove	White-breasted Woodswallow
Lewin's Rail	Red-tailed Black Cockatoo	Masked Woodswallow
Baillon's Crake	Budgerigar	White-browed Woodswallow
Australian Crake	Turquoise Parrot	Black-faced Woodswallow
	Oriental Cuckoo	Australian Raven

Of course we are always pleased to sight new species in the Toowoomba coverage area,

Pat M^cConnell - Records Officer.

Coming Events

This Month's Outing: Warwick area. Meet at the first service station (Mobil) on the the northern approach to Warwick on Sunday 24th September at 7.30 a.m. Leader Angela Kilmartin. Ph 382404

Annual General Meeting: to be held at the Toowoomba Education Centre, Baker Street. (adjacent to D.D.I.A.E.) commencing at 7.00 p.m. 17/10/89

Bird-a-thon: Sunday 22nd October. Please notify Ann or Angela if you can help. All meet for lunch at the Waterbird Habitat at 1.00 p.m.

November's Outing: Lockyer Wetlands. Meet at the Helidon Picnic Grounds at 7.00 a.m. on Sunday 26th November. Leader Micheal Atzeni.

Camp-out: The Baramba Field Study Centre has been booked for the long weekend in January, 1990. (26th - 29th) More information later or contact Angela.

Members Bird Notes

Superb Fairy Wren	8/4/89	Mansford St.	L.B.
Spotted Harrier	30/4/89	Wellcamp/Westbrook Rd	L.B.
Shining Bronze Cuckoo	13/4/89	Helidon Dip	L.A.
White-headed Pigeon	9/5/89	Gowrie Creek at Jellicoe St.	L.B.
Port Lincoln Parrot (escapee?)	11/5/89	Range St.	D.M.
Red-capped Robin	13/5/89	Helidon Dip	L.A. M.A.
Australian Pelican (16)	25/6/89	Hood's Lagoon	M.A.

L.B. - Lesley Beaton, L.A. - Laurie Atzeni, M.A. - Michael Atzeni, D.M. - Darryl Mears.

Rare and Endangered Species - Freckled Duck.

The Freckled Duck (*Stictonetta naevosa*) is Australia's rarest and most peculiar duck. It resembles a true duck in general appearance and proportions but it is not a normal 'dabbling duck'. Its uniformly spotted or 'freckled' dull grey-brown plumage is only relieved by a paler shading on the belly and off-white linings to the underwings. There is no well-defined facial pattern and no speculum—the sharply contrasting patch of colour on the inner wings of many true ducks. The neck is long and the head large, the latter accentuated to a triangular shape by a small crest. The bill is high at the base, narrow and markedly dished, giving the duck an unmistakable profile. The heads of males in breeding condition become very dark and the bill turns pillar-box red. Females never have red bills and are slightly smaller and paler than males.

John Gould illustrated a Freckled Duck in *The Birds of Australia* (1848) and gave a short account of what was then known about its natural history. Little new information was added for more than a century, despite the recognition that Freckled Ducks were unusual and their affinities with other waterfowl puzzling. Freckled Ducks were thought to be most closely related to the swans but re-

cent studies on their behaviour tend to support an affinity with the stiff-tail ducks. The stiff-tails are primarily diving ducks and include the Bluebill Duck (*Oxyura australis*) and the Musk Duck (*Biziura lobata*) of Australia. Much work still remains to be done to resolve this matter of affinity, but it is clear that the Freckled Duck is only distantly related to the other 150 or so extant species of waterfowl in the world.

The general biology of the Freckled Duck is now much better known, mainly because of the recent success of the CSIRO's captive breeding program.

Freckled Ducks usually feed in shallow water while slowly walking. The head sweeps from side to side with the bill at the surface. The pump action of the bill acts as a powerful filter mechanism creating a constant stream of expelled 'waste' water from the upper edges of the beak. With this 'suzzling' action the ducks filter out food (invertebrates and some vegetable matter) from the surface film and soft muds. They tend to feed at dusk and dawn and often by night, probably because of the diurnal rhythms in availability of their preferred microscopic foods.

Freckled Ducks are not loudly vocal, although at close range queru-

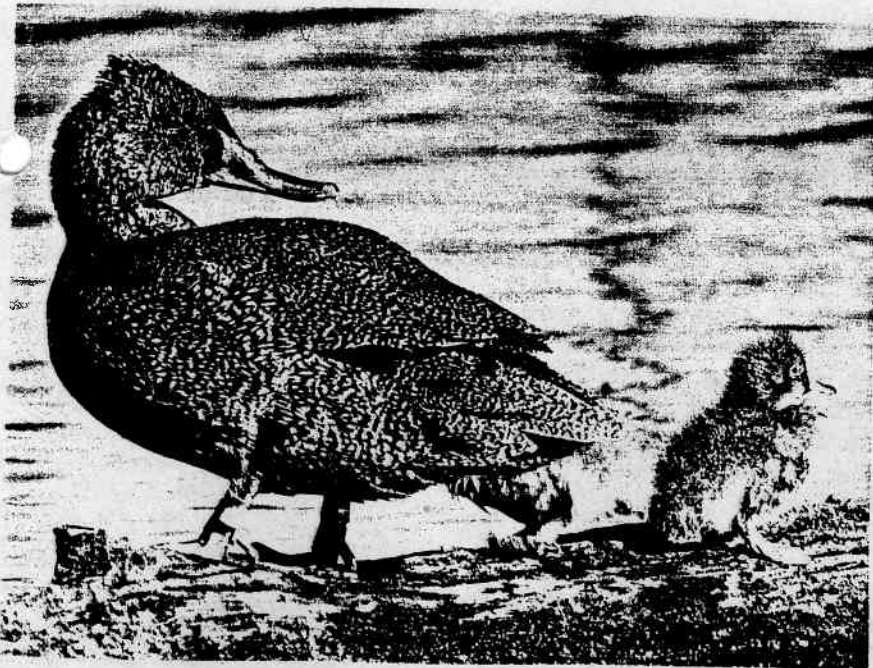
lous calls can be heard. By nature they are irascible and frequently bicker among themselves between long spells of silent loafing during the day.

Pair formation is accomplished with simple and rather cryptic postures and calls. A male-advertising display known as the 'axle-grind' is used to challenge other males and to attract females. A 'head-up-chin-lift' is the only response given by breeding females. The pair-bond is brief and males are polygamous.

Unlike most ducks, male Freckled Ducks perform nest-building actions and probably contribute to nest-site preparation. They do not incubate or play any part in brood rearing, nor guard their mates beyond the period of egg laying.

The breeding season is usually September to December, but a few clutches have been recorded in late summer. Clutch size is small (five to seven eggs) but larger clutches of up to 14 result from 'dump nesting'. This occurs when additional eggs are added by one or more different females. The nest is located at or near water level, often in large, dense and well-compacted Lignum (*Muehlenbeckia cunninghamii*) bushes. Incubation in 28 days and ducklings are covered in grey down. They begin to show feathering at the end of the fourth week and are fully feathered and capable of flight at two months. They can breed at one year.

The enigma of the Freckled Duck revolves around questions of why its numbers fluctuate widely over long periods (maximum numbers no more than 20,000) and exactly where its principal breeding areas are. If, as now seems to be generally agreed, it is dependent on the transitory wetlands created by floods in the enormous Lake Eyre drainage basin of central-eastern Australia, then the pattern of filling and drying of the vast Lignum swamps of the Diamantina and Cooper Creek floodplains may hold the key to its erratic population numbers. Just to the east, the swamps of the Bulloo and Paroo floodplains are probably also important. The swamps of the Murray-Darling basin and the few coastal wetlands of south-eastern and south-western Australia, however, do not appear to be such critical breeding areas. This is because, following any major flood event and therefore population increase, the inevitable drying of the inland swamps will drive Freckled Ducks towards the coasts, where they may survive for some years with limited breeding.



Female Freckled Duck and downy ducklings.

Now that captive breeding of Freckled Ducks has proved successful, a program should be designed to maintain viable populations. This will provide security against the possibility of extinction in the wild. Such a project must recognise the need for sufficient numbers to provide genetic diversity in the captive flocks. ■

—Peter Fullagar
CSIRO, Division of
Wildlife and Ecology



P. FULLAGAR

The distinctive white underwing can be seen on this Freckled Duck.

The Behaviour of Birds - Controlling the Breeding Cycle (Part 2 of a series)

The peak food supply is the ultimate factor in deciding when birds breed but eggs must be laid before the peak, and courtship takes place earlier still. Some migrants even start pairing and preparing physiologically for breeding, while on the wintering grounds thousands of kilometres away. So the food supply itself is not the trigger that starts breeding. Internal timing mechanisms tell birds when to start preparations for breeding, and the most important of these mechanisms responds to daylength, the only factor in the environment that has a regular unchanging annual cycle. Both moult and migration seem to be under control of daylength changes which are perceived by light penetrating the skull to the brain, rather than acting through the eyes.

Some species have a timing mechanism which is not based on daylength but on a fixed internal rhythm of approximately one year's duration, known as a circannual rhythm. How such a rhythm is produced is not definitely known but it seems that changing daylength is used to reset the bird's 'internal clock' each year. Several species of birds including Starlings have a fixed internal rhythm and if they are kept in a laboratory under a constant twelve hours light - twelve hours dark regime, they continue to show seasonal changes. e.g. Warblers put on weight and become restless when it is about the time to migrate, they moult roughly at the correct time and their reproductive organs develop as the breeding season approaches. This fixed rhythm may be important in giving the signal for the spring migration by birds which spend the winter near the equator where daylength changes very little.

by Barbara Weller

Adapted from "Bird Behaviour" by Robert Burton, Granada Publishing 1985.

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