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

No. 188 - September 1991

**FROM THE EDITOR:** The weather has certainly been dry leading to some movements of birds in search of food. Flocks of up to twenty red-tailed Cockatoos have been seen in the Helidon/Iredale districts; and small flocks of up to twelve King Parrots have been seen around the Toowoomba range areas. The Latham's Snipe have returned to Hood's Lagoon after their annual migration to Japan.

As mentioned in our last newsletter the Annual General Meeting of the Toowoomba Bird Club will be held on Tuesday, 15 October at the Toowoomba Education Centre commencing at 7.00 p.m. with drinks and nibbles. Our guest speaker will be the Minister for the Environment and Heritage, the Honourable Pat Comben, M.L.A. A nomination form for positions is included with this newsletter. As per our constitution, nominations must be received in writing fourteen days prior to the meeting; only nominations for positions not already nominated for can be taken from the floor on the night. Members are asked to bring a plate to the meeting.

You may have noticed that this newsletter and the last one were printed on ordinary paper again. This is because the recycled paper has been upsetting the printing machines at the Toowoomba Education Centre so they have had to revert to using the regular white-type of paper.

**AUGUST OUTING REPORT: MURPHYS' CREEK AND HELIDON** (25.8.91)

Although there wasn't a great abundance of birds, the number of species seen on the last outing was respectable. The bush looked very stressed from the extreme dryness - drooping leaves, no undergrowth and red dust covering the road verges.

There was no water on Paradise Creek Road, but plenty of noisy Friarbirds. Everybody had good views of Buff-rumped Thornbills and were surprised how yellow our northern race can be. Carrying along Fifteen Mile Road, we were pleased to see a number of Dusky Woodswallows hawking over an open paddock. They obligingly perched on low shrubs near our party so that we could see them in greater detail. Fifteen mile Creek was completely dry so there was no hope of seeing Yellow-tufted Honeyeaters. However a male Rose Robin displayed himself beautifully so that we could wonder at his rich rose-coloured breast.

Spring Bluff was the venue for morning tea. Here we sat in a little oasis of colourful garden beds, lush greenery and tinkling water. Some members continued to Helidon Spa and Hood's Lagoon finishing with a late lunch at Helidon Picnic area.

Thirteen members were present on the beautiful, sunny, windless day. 60 species were seen (or heard) at Murphy's Creek with another 24 added to the list in the Helidon area, making a total of 84 species for the outing.

Lesley Beaton

**BIRD BEHAVIOUR: HEARING** (Part 15 of a series)

The ears of birds, like their eyes, are similar in structure and sensitivity to our own, although birds do not have a cartilaginous external ear, or pinna. A single bone, the columella, replaces the three small bones of the mammalian middle ear. Birds have a peak of sensitivity, similar to humans, to sounds between 1.5 and 4.0 kilohertz. However, the range of hearing varies considerably between species. Hearing is generally very acute, as illustrated by the use of parrots and waterfowl as 'watchdogs' throughout history; the geese that alerted the citizens of Rome being the most famous example.

Birds use their sense of hearing for four, or even five purposes. The most obvious and important one is the role of hearing in communication. Birds sing and call to advertise territories and attract mates, keep contact in flocks and give warning of danger. Unless they wish to avoid attracting a predator, their sounds may be structured to make it easy for other birds to pinpoint their positions, and some birds, at least, are known to have peaks of hearing sensitivity that are tuned to the songs and calls of their species. Birds also use hearing to find their prey. This may be through incidental association, like the ravens that find carrion by homing on the howling of wolves or by listening to the sounds generated by their potential victims: Australian Black-backed Magpies find beetle larvae in the soil by listening for the sounds of their burrowing. Birds have also to be aware of the sounds made by approaching predators, especially at night or in dense cover.

A few birds are known to use sound for finding their way in the dark. These include the cave swiftlets of southern India and south-east Asia which possess the power of echolocation, although it is less sensitive than that used by bats to find insect prey. The birds emit streams of clicks audible to the human ears, at frequencies of 1.5 to 2.5 kilohertz, compared with the largely inaudible 20 to 115 kilohertz of bat pulses. These birds echolocation systems are only useful for finding nests and roosting places in the pitch-dark of caves. There have been suggestions that sounds could assist migratory birds to fix their positions. High flying birds could hear the choruses of croaking frogs which emanate from the same ponds each year and use them as landmarks. The recent discovery that birds can hear infra-sounds (frequencies too low for the human ear) has opened up another possible use of sound in migration. Pigeons are sensitive to infra-sounds with frequencies between 0.05 and 10 Hertz. Such sounds are generated by storms, the passage of wind over mountains and the sea breaking on the shore, and travel through the atmosphere for hundreds of kilometres. These noises could be particularly helpful when birds migrate at night or in heavy cloud, but as yet there is no proof that any use is made of them.

For all uses of the ear, localization of sound sources is vitally important. In humans, pinpointing a sound is achieved by comparing tiny differences between pitch and timing of the sounds entering two ears. Depending on the position of the source, a sound takes longer to reach one ear than the other, and is louder on one side than the other. These minute differences are increased by the head forming an obstacle around which sound has to travel. Birds use a similar system but, because their heads are so much smaller, the time differences in arriving sound waves are too small to measure. However, like reptiles and amphibians, but unlike mammals, birds have a passage through the skull which links the two eardrums. As sound waves travel down the passage, each eardrum receives the sound on both its faces. The result is to enhance the difference in response between the two eardrums and, given the birds greater ability (compared with mammals) to discriminate time differences in sounds, this enables them to pinpoint the source.

Sound localization has reached its peak in the owl, some of which can pounce on prey in pitch darkness and are four times better at this than any other animal tested. The owl's hearing system has several features not found in other birds. There is a circular ruff of very fine feathers around each eye that funnels sound to the ear opening, which is hidden under a flap of skin. The ear openings are asymmetrically placed on the head as a further aid to localization, the left ear being placed higher and its opening tilted downwards, so it is more sensitive to sounds from below. Comparison between the ears gives a good measurement of the angle of elevation of a sound source, so the owl can judge the position of a mouse on the ground below. Extreme accuracy is needed because the angle is usually shallow, so a slight change results in a large shift in range of the target.

by Barbara Weller

Adapted from Bird Behaviour, (1985) by Robert Burton, Granada Publishing, London.

GIPSY POINT LODGE (address: Gipsey Point, Victoria 3891. (051) 588 205.

A number of birding weeks have been organized for 1991-1992. For more information contact Barbara Weller.

Bird Week with Ken Simpson - Sunday 29 September to Saturday 5 October 1991

Bird Weeks with Graham Pizzey - Sunday 29 March to Saturday 4 April 1992  
Sunday 4 to Saturday 10 October 1992

Bird Week with Richard Jordan - Sunday 1 to Saturday 7 March 1992

Birds of the Coast and Mountains - Sunday 15 to Sunday 22 March 1992

Bird Observers' Weeks for 1991: September 8 to 14, September 22 to 28, October 20 to 26,  
November 3 to 9, November 24 to 30

Pelargic and Whale Watching Trips have also been organized. detach here

NOMINATION FORM FOR EXECUTIVE POSITIONS: 1991 - 1992

ANNUAL GENERAL MEETING HELD ON TUESDAY 15 OCTOBER 1991.

1. Position.....

Name of nominee.....

Nominated by.....

Seconded by.....

Acceptance (Signature of nominee) .....Date.....

2. Position .....

Name of Nominee.....

Nominated by.....

Seconded by.....

Acceptance (signature of nominee) .....Date .....

3. Position.....

Name of Nominee.....

Nominated by.....

Seconded by.....

Acceptance (Signature of nominee).....Date .....

FUTURE OUTINGS: TOOWOOMBA BIRD CLUB

Sunday, 29 September - Coolmunda Dam via Inglewood. Meet at the main picnic ground at 9.00 a.m. Leader Rod Hobson 075 661379

PLEASE NOTE! THIS WILL BE THE FIFTH SUNDAY OF SEPTEMBER NOT THE FOURTH AS PREVIOUSLY ADVISED. Rod and Pat will be away on the 22 September at Birdsville.

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Tuesday, 15 October - Annual General Meeting. 7.00 pm for 7.30 pm at the Education Centre, Baker Street. Members and invited guests ONLY.

Sunday, 27 October - Bird-a-thon

Sunday, 24 November - Redwood Park and Withcott



**QUOTE:** Aren't you glad that God invented birds Grand-ma. If he hadn't you'd have nothing to do!!!  
  
A six-year old boy.

*"For a moment I thought he'd sighted a purple spotted sandpiper, but apparently he's only won the lottery."*

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