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Stray Feathers

Ovulation and Light Intensity.—I have just received a copy of the *Medical Journal of Australia* of February 28, 1948, in which is an article entitled 'The Control of Sex and Reproductive Functions' by Chandler Brooks, Associate Professor of Physiology, Johns Hopkins Hospital, Baltimore, U.S.A. Among interesting notes on various animals are some on birds, some of which are new to me and might be of interest to readers of *The Emu*.

After mentioning the fact that the intensity and the daily periods of light are factors producing sexual activity the author states—"It is the visible part of the spectrum which is effective. As the days lengthen in the spring time, or as the hours of exposure to light are increased experimentally under controlled conditions, the ovaries of spring breeding birds and mammals begin to develop . . ." "Again I should mention species differences, because some animals seem to respond to the decrease in light of the autumn (sheep and deer). The abundance of favourable foods may play some

part here, because many seed-eating birds nest rather late towards the autumn. Some birds do not conform when transported to new climates. Birds from North Australia (the hooded and the brown parrakeet are examples) are markedly more inclined to stick obstinately to their own breeding season (October) even when transported to the northern hemisphere. Some birds try to keep both seasons and moult and breed at their old season and also in accord with the new (grass parrakeets and Bourke's parrakeet). South Australian and Central Australian parrakeets adapt themselves very promptly, while other species of birds and mammals adapt themselves but require a year or two of exposure."

Speaking of ovulation he says—"The seventeen-year locust has the longest and the fowl has the shortest ovulation cycle of all animals. A good fowl lays approximately one egg a day under proper conditions. A hen requires no less than twenty-five to twenty-eight hours to produce an egg, but she will not lay in the dark. If the evening hours overtake her before her egg is laid (a fowl rarely lays after 4 o'clock) ovulation is inhibited until the next day and the farmer loses an egg unless he artificially lights his hen house."

"Ovulation in birds is inhibited by other phenomena. After a bird lays her normal number of eggs in a nest, she stops laying and broods. If an egg is taken away each day, as is done in the case of a fowl, a robin or other wild bird will continue to lay until twelve or twenty eggs are produced instead of the normal three or four. Why does feeling or counting four eggs stop ovulation? Finally, we have the pigeon which will not ovulate if she lives alone. She probably prefers a male mate, of course, but another pigeon in a nearby cage will do, or another bird with her which looks a little like a pigeon will do, and I am told that she will also be reasonably content and continue to ovulate in the absence of all company if she has a mirror in which she can see herself."—ERIC POCKLEY, Suva, Fiji, 11/4/48.

Does Experience Influence Bird Actions?—Recent events in the bird population of my district have caused a question to rise to my mind. Do birds learn quickly from experience?

Most students of bird behaviour would, I think, answer the question in the negative. I, also, am inclined to do so, having seen many instances of over-trustful birds building the same type of nest, in a similar position, only to have it meet the same disastrous fate time after time. However, I feel I should record the following notes which seem to indicate an answer in the affirmative.

On August 2, 1947, a Yellow-tailed Thornbill (*Acanthiza chrysorrhoa*) had its nest in a very thick cluster of dead

leaves, at the top end of a recently-felled eucalypt. About two feet off the ground, it contained two eggs, and the bird was brooding when disturbed. Later (August 10) the nest was found on the ground pulled to pieces. The eggs had completely disappeared. Two Thornbills—not positively, but very probably the same pair—that had built the nest, were later observed pulling pieces from it. The pieces were being added to a new structure situated in the bottom of an old nest of a Black-backed Magpie (*Gymnorhina tibicen*). This latter nest was built into a bunch of mistle-toe, about forty feet high. The tree was growing about fifty feet away from the previous location. A brood of three safely left this nest.

Another nest of *A. chrysorrhoa* was found two days later (August 12). It was two and a half feet from the ground, in a blackthorn, and about fifty yards further along the fence. About the size of a cricket ball, it was just being roofed in. My notes read—"The roof is one to two grass stems thick and perfectly flat. Rootlets, grass stems and cobwebs. Entrance south." This is the favourite direction for *A. chrysorrhoa* to 'point' its nest, in this district.

Under date August 16 my notes read—"Cup at top by now. Lining of cup has progressed but the birds are only just starting to line the inside. Peculiar habit of one bird. With material in its beak, it perched on the fence wire close to the nest. Suddenly it swung backwards and, in an upside-down position, placed its beak and the material against the wire. Both birds lining the inside with feathers. Both birds noticed acting in peculiar manner as above." This back swing has been noticed often since, but no explanation comes to my mind.

By August 22 the nest had a very deep cup at the top and two eggs. On or about August 24 it was wrecked and robbed, marauder unknown. Later the birds were noticed building again, this time in one of those bunchy clumps of dead sticks often found in paper-bark trees (*Melaleuca rhododendron*). This time their nest was up about eight feet. Like their neighbours they were using material from the old nest. The nest was quickly completed (September 1) and eggs were found in it three days later. However, it was wrecked by September 8.

This pair of birds did not attempt to build here again, but were observed, still looking around for a site, some two or three days later. They left the location completely about September 14 without attempting to build a third nest.

Both the foregoing records show the birds building higher on their second attempt, meeting with mixed success.

On August 5, 1947, a pair of Willie Wagtails was noticed starting a nest on a rafter in the tractor shed. A nest was built almost in the same position the previous year and had been destroyed by two cats when it contained young. The Wagtails had therefore not learned by previous experience.

The nest was completed and the first egg laid on the night of August 30. The second egg was deposited the next night and the third the following night. Exactly one week after the first egg was deposited, one egg disappeared. I suspected rats, so I laid flour across the rafter on each side of the nest. However, a second egg went the next night and no tell-tale rat prints were found on the flour. The third and last egg remained for two days, when it also disappeared. At this stage I began to suspect the birds as I could find no trace of the eggs broken or otherwise. My suspicions were confirmed when I later saw the birds pulling the nest to pieces. I think that I may have been the unwitting cause of the egg removals as I had handled them with paraffin-soaked fingers.

The Wagtails next built in a peppercorn tree about fifty yards distant from their original nest. Unfortunately I did not notice this nest until I found a shattered egg directly under it. It was up about thirty feet in the tree and it was also subsequently pulled to pieces by the birds.

Once again I had a serious observational lapse and no record was kept of the Wagtails' actions, until an unusual amount of excreta, underneath a gum tree some thirty yards from the pepper tree, indicated a bird 'camp' up above. I found it to be the erstwhile Wagtails', complete with a clutch of three healthy fledgelings. This time the nest was at least fifty feet up, not a rare occurrence, but unusual. This brood all lived to 'tell the tale.'

I repeat—Do birds learn quickly by experience?—R. H. BOUGHTWOOD, South Liverpool, N.S.W., 2/3/48.

Eggs of the Spinifex or Night Parrot.—In *A Supplement of the Birds of Norfolk and Lord Howe Islands*, July 15, 1936, p. 56, I gave all the information I then possessed about this bird. Now through my friend Mr. W. E. Clegg I am able to give some account of eggs laid in captivity in 1862. The three eggs have the scientific name written on them and '15a. [and 15b. and 15c.] C.G.P. 1862', and measure 25.2 by 20 mm., 25 by 19.2, and 25.5 by 19.5. The eggs are from the Henry Munt collection which passed to the Rothschild museum when Munt died. Munt was a most reliable man. He collected only white eggs.

Eggs. Clutch 3 or 4? White, slight gloss, oval, 25 mm. to 25.5 by 19.2 by 20. Average 25.2 by 19.6.—GREGORY M. MATHEWS, Winchester, Eng., 22/11/47.

Obituary

ARTHUR CHENERY

Dr. Chenery, an original member of the Union, and its president in 1930-31, died at his daughter's home in St. Kilda Road, Melbourne, on June 6, 1948, aged nearly 79.