

annually returned to this location to nest. It has been noticed that the young are permitted to remain until the next season, when they are driven off by the original pair.

Nesting begins in October, and for the last three years two young herons have been flying by early December. One young heron which broke its wing in leaving the nest was cared for at the homestead for some time, and would come at call for scraps of meat, of which it took large quantities. Eventually, however, it was drowned in a flood.

This season was the only one in which a second nest was built, apparently as the first was marauded, one downy young bird being found dead beneath the tree. I climbed to this second nest, with the disappointing knowledge that the two young had left only two or three days before (about 15th January). It was built about 60-70 feet up next to the trunk of a macrocarpa tree which stood among bluegums, and consisted entirely of dry bluegum twigs—mostly about a foot long and a little thinner than a lead pencil. It was about one foot six across, and nearly nine inches deep, and built rather like a pigeon's nest, only more cup-shaped. It is interesting to note that a sparrow's nest was placed in one corner, and it seemed that the two families had been present at the same time. For about two days the young herons flew to and from this nesting tree to another tree, apparently "getting their wings."

A few days later I watched, after a very careful approach, the herons feeding at a pond in the hills. The birds would wade knee-deep in the water with wary and measured step then swiftly lunge their beaks into the grasses and usually, though not always, lift up a kicking frog, which, after a peck or two, was devoured. It was amusing to watch the grotesque attitudes assumed when a harrier flew low over the swamp.

A BLACKBIRD NESTING STORY.

By H. R. MCKENZIE.

The nest was built on the bare window-sill behind a screen of climbing geranium mixed with a strong growth of *Muhlenbeckia australis*, heavily screened from without by the greenery, but with only the window sash and glass between it and the inside of the room. I could see the bird on the nest by raising my head a few inches from the pillow only five feet away. She did not become very tame, and great caution had to be used, especially in the earlier stages. I work away from home, so most of the observations are for morning and evening only. Details of times and dates were carefully kept, and the averages given are exact for the periods of observation.

The building of the nest was not pursued steadily..

26-27/9/42.—The hen bird visited the site each morning.

28/9/42.—7 a.m.: Noted a scanty ring of grass on the sill.

29/9/42.—The whole framework of the nest was erected, with some mud on the inside.

30/9/42.—The hen started work at 6.45 a.m., making trips every two to three minutes. She ceased at night when some fibre lining

was in place. The cock sang from 5.40 a.m., but did not help.

1-4/10/42.—Only a little lining added each day. She used her breast to press it into place.

4/10/42.—First seen at 5.10 p.m.

5/10/42.—The second egg was laid between 7 a.m. and 6.10 p.m.

6/10/42.—The third egg laid, and she stayed on the nest all night for the first time.

7-19/10/42.—During this incubation period she stayed on the nest for 14.5 minutes average (max. 45 minutes, min. 1 minute) and she left it to feed for intervals of 7.5 minutes average (max. 14 minutes, min. 2 minutes). Her periods on the nest were longer during the middle of the day. While sitting she changed her position every 3 to 10 minutes. I do not think she turned the eggs every time she changed position. To turn them she sometimes used her beak, but I could not see exactly what she did. I believe that practically all of the turning was done with her feet and body with a sidewise shuffling. Unfortunately it was later than this that I thought of rigging a mirror to enable me to see into the bottom of the nest.

During incubation she survived two serious trials. On the 8th at 9.30 p.m. she suddenly fluttered up the window-pane into the vines in a panic. I switched out the light and used a torch, but found nothing. She apparently settled on the nest again. A few minutes later she cried out and fluttered out through the vines. This time the torch revealed a cat. I tried to shoot him, but missed. He was a pest in other respects. The bird did not return that night. A bunch of her feathers lay by the nest. The night was warm for the eggs, but I thought she would desert, the eggs being fresh. However, at 5.42 a.m. on the 9th she returned and took up her usual routine. Again on the 12th at 11 p.m. she fluttered up the window and left the nest for the balance of the night. I now knew that, though the light was shaded all the time from her window, it was the amount of light in the room that upset her balance. On the first occasion (the 8th) it was the light which first troubled her, and the cat had been attracted by the noise. I used a screen against the window after this. This night was cold and windy, and I despaired of the partly incubated eggs (6 days). She returned at 5.19 a.m., being over six hours off the nest.

20/10/42.—The first two chicks were seen at 5.9 a.m., and the third was hatched during the day, being seen at 5.50 p.m. They were first fed with very small worms, the whole bunch being held in the beak while being fed to the chicks. They were sometimes unable to take food when she returned and she had to warm them by brooding until they were ready to feed. She held the worms in her beak while brooding. At other times they were unable to take all she brought, when she would brood for 3 to 4 minutes, holding the worms, and then feed them again.

20-23/10/42.—The hen brooded each time she returned with food, staying on the nest 8 minutes (max. 21, min 1) and being off it for 5 minutes (max. 10, min. 2).

24/10/42.—On this date she commenced returning for more food without brooding every time. No doubt feeding would be less frequent about the middle of the day.

"Bedmaking" seemed to be effected at odd times by a stirring up of the lining of the nest with the beak making a hollow trundling kind of noise. Once she raised her head with two short pieces of straw balanced across her forehead. She would select a part of the nest not covered by the chicks at the time. I am almost sure that she was not pursuing vermin.

Sanitation was achieved on the 20th and part of the 21st by the hen picking up the droppings from the nest floor and eating them. Later she took them from each chick as they appeared and ate them. This was done immediately after each feeding.

27/10/42.—One chick had its eyes open. Doubtful of other two.

28/10/42.—All three seen to have eyes open.

29/10/42.—They made their first cheeps on the arrival of food. At this time also it was noted that the chicks were all made to face in one direction for brooding the hen then sitting facing the same way.

30/10/42.—On this night and thereafter the hen did not stay on the nest at night. The chicks did not appear to be cold when examined before 5 a.m. on the 31st.

31/10/42.—The hen came with food at 5.2 a.m. and went on feeding.

1/11/42.—Chicks exercising wings noisily. 8.30 p.m., examined by torch. Droppings on and over edge of nest.

2/11/42.—One chick seen perched on edge of nest.

3/11/42.—First fed at 4.50 a.m. At 5.40 a.m. one fluttered voluntarily from the edge of the nest. The other two took fright at me and left also. One was immediately taken, I think by a rat. The hen fed the other two about the lawn.

28/11/42 (approx.).—Feeding ceased.

1/12/42.—One young seen feeding itself near parents and making a chirping like an attempt at song.

16/12/42.—Family all on lawn. Hen sunning herself and looking very worn.

The male bird I am sure did not assist with the building of the nest or the feeding of the chicks, either before or after leaving the nest. He sang a great deal until the hen commenced incubation, then dropped about 50 per cent. and continued at about the same rate. He took a prominent part in all alarms. In the case of another pair in a pine tree the male worked very hard feeding the young, both before and after their leaving the nest. It is well known that the male usually assists in building, but I noticed, in going five miles to and from work, that there were fewer males than females carrying building material. I think that it was this pair which deserted two partially incubated eggs earlier owing to my examining their nest in a camellia tree on the lawn (I now use a mirror on the end of a long stick to examine nests). They were probably a very young pair. Both were in fine plumage and appeared very healthy.