

NESTING OBSERVATIONS ON PAPUAN FROGMOUTH *PODARGUS PAPUENSIS*

LEONARD P. TOLHURST

LOCATION: Pacific Adventist College campus is about 23 km from downtown Port Moresby, on the Sogeri Road. The campus is about one km south of the highway.

NEST LOCATION: The nest was built in a tall *Eucalyptus* tree, about 10 m above the ground, standing about 10 to 12 m east of the house in which I live. As the ground slopes away not far from the house, the nest was at about eye-level as I looked out of our upstairs lounge window. The distance from the window to the nest was about 7 to 10 m. This afforded very good observation conditions, as most of the time I only had to look out of the window. It also allowed for minimum disturbance of the nesting bird, as I could keep most of the window louvres closed, and only look out of the top ones. The *Eucalyptus* tree used was a rather open tree with large round shaped leaves, and visibility was fairly good, except for a small branch that obscured part of the nest, and the bird when it was on the nest.

NEST DESCRIPTION: The nest was a small platform of thin sticks, and did not look very secure. It was placed on a horizontal branch about 4 to 6 cm in diameter. Some other branches that joined on to the main branch at that point gave the necessary additional support for the nest.

NEST-BUILDING OBSERVATIONS: One bird was seen at the nest site around late October, or early November. I did not know this early that the pair were considering nesting at this site, but on hearing the typical frogmouth calls, I looked out of the window and, using a torch, saw a bird at the site. They must have been selecting the site, and then building their nest during the nights in early November, as there was no sign of the birds at the nest site during daylight hours. The nest was first noticed in daylight on 19 November 1989. During the evening of 19 November one bird was seen on the nest, and was calling 'murr murr murr' to its mate which was sitting on a stake not far away. Between 3:00 and 4:00 on 20 November one bird was again seen at the nest.

INCUBATION: From later observation it was discovered that there was only one egg in the nest, and it appears that incubation began on 21 November 1989, as that is the date that a bird was first seen sitting on the nest all day long. A summary of the incubation period observations made by myself and one of the college students who lived in my house whilst I was in Australia is given below. It appears, however, that the single chick hatched around 30 December 1989, as it was first seen on 5 January and was already covered in half grown cotton-like feathers. This would mean that the incubation period was about 37 days.

SUMMARY OF INCUBATION PERIOD OBSERVATIONS

From 21 November to end of the month a bird was seen on the nest day and night. This included times in the early morning when I woke up. Frequent bird calls were heard during the night.

26 November. A motor lawn-mower was used very close to the nesting tree, but the bird on the nest did not leave.

1 December. At 03:15 one bird was on the nest, and its mate was on a stake nearby. I wondered whether they took turns to incubate the egg so that the main incubator could eat.

4 December. At 04:00 no bird was on the nest. This was the first time since incubation began that the nest was left unattended. When I opened the metal louvres and shone a torch onto the nest the bird flew quickly to the nest, but did not stay there; it flew off to a nearby perch.

10 December. At 20:00 no bird was on the nest, but by 20:45 it had returned.

11 December. At 02:45 bird was on the nest, but had gone by 03:05. Several calls were heard, and the bird seemed to be feeding on moths and insects collected from around the security light on the corner of the house near the window used for viewing the nest. These flights to collect insects were made from the top of a nearby stake. By 03:15 it had returned to the nest and sat on it.

12 December. At 05:05 no bird was on the nest, but at 05:07 one returned to a nearby branch, then gave the rolling call and approached the nest with its wings spread out wide. It bent its head down twice to the nest, perhaps checking the egg, or rolling it over, and then sat down on the nest. At 10:30, in an effort to see if the egg had hatched, I chased the bird off the nest by trying to climb the tree. When I was only 1 m off the ground it left the nest. Then from the lounge window I could see that there was one egg in the nest. The bird remained off the nest for the rest of the day, but returned after dark.

13 December. Checked the nest three times between 03:00 and 03:30, and found the bird on the nest each time. Saw its mate flying around once. Bird on nest each time checked in the evening up to 20:00.

14 December. c. 02:30 and 05:00 a bird was on the nest.

17 December. No bird on nest most of the day, but one was on the nest by 21:50.

18-20 December. Frequent checks day and night. Bird usually on nest. Mate still around.

21 December. At 12:00 I chased bird off nest. No chick yet, egg still present. Left for Australia on afternoon flight. Arranged for college student to stay in my house while away, and asked him to continue reports of developments on the incubation.

21-24 December. Frequent checks made morning and night. On the night of December 23 bird was not on the nest when checked.

25 December 1989 to 5 January 1990. Frequent checks made.

5 January. At 16:30 bird was chased off nest and a chick was seen, with half grown cotton-like feathers on its body. It is thought that it hatched around December 30.

5-9 January. The bird was mostly on the nest during the days and nights. There were usually two adult birds around.

10 January. At 08:54 the bird was on the nest but allowed the chick to come out onto the branch in the open and look around. It was now about twice the size it was on January 5. The mate was not seen around. It is thought that the parents may have been taking turns at "baby-sitting". Dark spots were beginning to show on the white feathers of the chick. At 17:00 two adult birds were seen, one beside the chick, which was in the open.

11 January. At midnight the chick was alone in the nest.

11-19 January. The chick was left alone in the nest for much of the night.

20 January. The chick was now about three times its original size, and sat with its parent on the nest, or near it. The chick is very active, moving around a lot.

24 January. The chick was about the same size as its parent, except that its tail feathers were very short.

26 January. The chick was seen sitting on a branch near the nest.

27 January. In the morning the chick was back in the nest.

28 January. The chick moved to a higher branch in the tree, and sat there all day.

29 January. At about one month old, the chick was heard to make similar calls to those of the parents.

30 January. Both the parent and the chick were gone from both the nest and the nest tree.

31 January. No sign of either the parent or the chick all day.

1 February. Both parent and chick were back in the nest tree.

February 2. Both parent and chick were in the nest again, sitting side by side.

February 4-5. No sign of parent or chick by day or night.

February 6. Parent and chick were back in the tree.

February 7. Parent and chick gone again, and were not seen in the nesting tree again.

FURTHER COMMENTS. From the above observations it can be seen that :-

1. Dark spots begin to appear on the white feathers of the chick at about 10 days old.
2. At about 10 days old the parent allows the chick to come out from under its protective feathers and look around.
3. By 24 days old the chick is almost the same size as the parent, except its tail is still very short.
4. By 26 days old the chick left the nest and sat on a nearby branch.
5. By 29 days old the chick was heard making adult-like calls.
6. By 30 days old the chick had left the nest for a whole day. That is, it had gone to another tree.
7. By 37 days old the chick had left the nest and its tree for good.

Address: Pacific Adventist College, Private Mail Bag, Boroko.