Observations at a Nest of Eastern Grass Owls

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The Eastern Grass Owl *Tyto longimembris* is not only one of the less frequently seen Australian breeding species, but observations in the field are mainly limited to brief glimpses of a bird as it is flushed from its daytime roost and before it drops to seek cover again among the ground vegetation in its savannah type habitat. Little is known of its general behaviour in the wild and observations of breeding behaviour in Australia are confined to captive birds. There appear to be no published observations of the interplay between adults and chicks at the nest at night, including feeding behaviour or vocalisation. Thus any information however limited or incomplete is of interest, and the following account of observations, both visual and aural, gathered while spending several hours spread over one week at the nest of a pair of Grass Owls containing three chicks, is offered as additional data.

The nest of a pair of Grass Owls containing three downy chicks was located on 20 July 1980 when an adult bird was flushed from dense grass cover at the base of a small mangrove tree *Avicennia* sp. by J. McKean, J. Beste, B. Richards and K. Richards who were searching for Yellow Chats on the flood plains of the South Alligator River, Northern Territory. The writer, who was some thirty metres away from the party across a small tidal channel, was alerted by the others when the owl was flushed, and the bird was glassed as it flew approximately one hundred metres before it dropped to the ground. The nest was well hidden under the dense mangrove tree, which was more in the form of a bush, with its foliage reaching the ground all round and the branches forming a strong barrier which was hard to lift to inspect the contents of the nest. This was no more than a trodden-down platform of native grasses, covered with disgorged owl pellets, bits of mammal fur and bone material — parts of the prey brought in by the adults. Three chicks covered in pale apricot-coloured down were barely visible through the foliage; their harsh hissing calls, best described as high pressure steam escaping from a boiler, drew our attention to their presence. The nesting site was situated on a small promontory surrounded on three sides by a tidal channel of the South Alligator River and, as I found out later, barely above high water level.

On our return to the area five days later a hide was erected near the nest. The following day part of the overhanging foliage was lifted and tied back when Beryl Richards and Judy Beste took the first session in the hide. With the nesting platform partly exposed the chicks could now be observed by torchlight if necessary and the adults and their prey identified as they came to the nest to feed the young — or so we thought! However this first attempt at catching glimpses of the private life of Grass Owls was not very productive. As one might have anticipated the adults didn't take the easiest way of coming into the nest but rather chose the most difficult in an effort to stay out of sight of the human

Eastern Grass Owl at South Alligator River, N.T.

Plate 38

Photo: Hans & Judy Beste

intruders. Rather than land on the now opened up side of the nest they landed behind the bush pushing their offerings through the dense foliage and possibly partly getting into the nest to escape detection. The chicks were called up whenever an adult landed and almost disappeared completely from view as they received their food. This procedure made it impossible that night to see the type of prey brought in or to see what amount of assistance was given by the adults during feeding.

The following night was no more productive. Additional foliage, broken from other bushes, had been pushed into the nesting tree from all three closed sides to thicken them and possibly force the adults to feed from the open side, but again the adults somehow managed to force the prey into the nest from behind. The problem of getting the owls to feed while exposed to the observer was never entirely solved, not even by the time we decided to discontinue the project following the night of 1 August, when it had become clear that we could not possibly hope to get a good series of photographs of the adults and feeding at the nest.

The third night was a complete waste of time. The moon was shining directly at the hide from behind the nesting bush and both adults stayed away from the nest when they would normally have been feeding the young. When they didn't come near the nest for a couple of hours I decided to retreat from the hide for the night; thus the three nights had produced little visual contact with the adults. However the following night, that of 28 July, proved to be much better. The moon was later rising and this time two rats were brought to the nest. The first was fed to the young shortly after 2000 hours and this time the adult owl landed in front of the hide. The prey was torn up and consumed with much bone crushing and vocalisation by the young and, although no light was used, the adult was seen to help with the tearing up. The second rat, brought in a little later, was dropped into the nest by an adult which landed for only a few seconds on top of the bush. The prey disappeared quickly and was swallowed whole by one of the larger chicks with much head-jerking and neck-stretching. The chicks became very vocal, hissing loudly when an adult approached the nest after having landed on the ground, a sound not unlike that encountered when the young were disturbed by us as described earlier. However the contact calls uttered by adults flying overhead were not responded to by the chicks. These calls were most intriguing being neither Tyto-like nor very audible at any distance. The call is a very soft high-pitched trill, best described as PSEE-YOU, sometimes EEE-YOU or just plain EEE. The nights were perfectly calm during our period of observations. Fish could be heard feeding nearby and sound carried for miles across the plain, a fact which made these soft owl-calls most discernible; a slight breeze would no doubt make them inaudible to the passer-by, and stronger winds even to the trained ear. When the site was checked the next morning two decapitated rats were found lying in the nest and left over after a successful night's hunting by the owls. Both were examined and identified as Territory Dusky Rats *Rattus colletti* not fully grown. It was most interesting to note that the specimens were headless, particularly since we photographed an adult owl on the following night with a rat which was entire, suggesting that the heads of the other two rats had been

removed after the prey had been brought to the nest. A second rat had also been brought to the nest in one piece, as seen by torchlight, during an earlier session and this supports the above assumption. More rats were brought in over the next few days but during our vigils none was torn up by the adults and it appeared that the rapidly growing young were managing to swallow them whole. Adults only stayed at the nest for a few seconds at a time, and no noises suggesting that the young were tearing up the food could be heard following such visits. We managed to take one more photograph during this time, but it became obvious that the young no longer needed assistance from the adults during feeding and we finally decided to remove the hide; any further attempts to photograph the parent birds seemed a waste of time.

Unfortunately the period of observation was at an unsuitable time of the month and late in the cycle of rearing the young. First, observation was made difficult owing to the fullness of the moon and the position of the hide and second, the young Grass Owls were too advanced to necessitate continuous attention by the adults. The parents showed little inclination to stay at the nest and would not tolerate the use of torches, neither white nor red light, to observe them. This, coupled with the moon often shining directly at us, made our task most difficult. However the lack of visual contact gave us the opportunity to listen and study their calls and record them as best as we could under the circumstances.

Acknowledgement

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Proceedings of Symposium on Estimating Numbers of Terrestrial Birds

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