

Breeding data on the Water Thicknee in the Mpenjati Nature Reserve

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Breeding data for the Water Thicknee *Burhinus vermiculatus* currently consists of descriptions of the nest, nesting site, clutch size, and data on the eggs, with some data on the incubation period, but no information on fledging. On the KwaZulu-Natal south coast, this species breeds from August to February.

To gather accurate data on incubation and fledging, observations were made over three breeding seasons from August 2001 to April 2004, in the Mpenjati Nature Reserve (30°56'S, 30°18'E; 66 ha). The reserve is controlled by the Kwa-Zulu Nature Conser-

vation Service and is situated 20 km south of Margate. It is a small coastal reserve, with the main feature being the Impenjati River estuary. It is one of the very few remaining undeveloped estuaries on the KwaZulu-Natal south coast.

The reserve includes grassland, forest, wetland, dune and estuarine habitats. Grassland and forest are dominant. The forest is divided into coastal and dune forest. The coastal grasslands are intersected by numerous wetlands. Management actions include the control of alien invasive vegetation and two-yearly burning of the grasslands. Bird-life in the reserve is abundant, with over 250 species recorded. The Water Thicknee population at Mpenjati is healthy, with up to 34 birds counted in a single night.

At this site, Water Thicknees bred more than once in a season; several pairs successfully raised two clutches. All the nests were located by observing adult behavior, and were found during nest preparation and egg-laying phases. The locations of all nests were recorded using a GPS, and marked with small coloured pegs which were placed 1 m from the nest. The presence of the pegs had no effect on nesting activity and were easily accepted.

Incubation commenced within a day of laying of the last egg. The fledging period was taken from the day of hatching to the first flight. All nests were monitored until hatching occurred. As soon as each chick hatched, the adults flew off with the eggshells. As the chicks are precocial, they leave the nest as soon as they are able after hatching, normally within 24 hours. The young chicks are mobile, but they are not capable of catching and handling prey. The parents feed them up to about a week before fledging. The chicks evade predators by hiding and crouch-

ing motionless in grass or undergrowth on the edge of thickets or coastal forest, depending wholly on camouflage.

During the three breeding seasons, 27 nests were located and observed. Of these, 19 were successful breeding attempts. The others were failures due to nests destroyed by humans and eggs eaten by Water Monitors *Varanus niloticus*. In one instance, a nest was flooded by a rise in water level in the estuary. (The estuary filled with rainwater from inland and did not breach.)

All nests were small, shallow depressions in the ground, measuring 135–155 mm in diameter, and 15–20 mm in depth. The rims of the nests were lined with small pebbles and bits of plant matter. The nests were constructed by both adults. During incubation, it was noted that, when one of the adults approached the nest, it would stand motionless for a long period after its mate had got off the nest. It would occasionally preen itself and bob its head several times. On its final approach, it squatted down momentarily in

the incubating posture about one metre from the nest, bend down as if examining the eggs, and then proceed to incubate at the nest.

On hot days, incubating birds were observed sitting on the nest with beak open and wings slightly spread. The mate was more often than not observed standing in the shade some distance from the nest. It was interesting to note that both adults incubated the eggs during daylight hours; however the female always sat on the nest from last light until first light.

At Mpenjati, this species had a high breeding success rate. When a breeding attempt failed early in the season, the adults soon set about constructing another nest, normally in the vicinity of the first. The observed fledging period was 61.1 days (range = 60–63; n = 19 broods; Table 1). After fledging, the young birds normally congregated upstream in a group, well out of the way of the breeding adults, if there was a second breeding attempt.

Table 1. Fledging data for the Water Thicknee at Mpenjati Nature Reserve over three breeding seasons: August 2001 to April 2004.

Nest no.	Hatch date	Fledging date	Days to fledging
01/2001	27/01/01	29/03/01	62
02/2001	06/02/01	07/04/01	60
01/2002	30/01/02	30/03/02	60
02/2002	01/02/02	02/04/02	61
03/2002	08/02/02	08/04/02	60
04/2002	16/02/02	17/04/02	61
05/2002	03/11/02	02/01/03	61
06/2002	11/11/02	11/01/03	62
07/2002	18/11/02	19/01/03	63
01/2003	28/08/03	27/10/03	61
02/2003	07/09/03	07/11/03	62
03/2003	19/09/03	17/11/03	60
04/2003	27/10/03	25/12/03	60
05/2003	05/11/03	04/01/04	61
06/2003	26/11/03	27/01/04	63
07/2003	12/12/03	10/02/04	61
08/2003	09/01/04	09/03/04	61
09/2003	27/01/04	27/03/04	60
10/2003	04/02/04	03/04/04	61
Mean			61.1



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