

## Reaction of a Black Bittern to Attempted Predation by a Brown Goshawk

by

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Displays in the Black Bittern *Ixobrychus (Dupetor) flavicollis* are almost completely unknown and recorded encounters with the species seldom indicate such behaviour, e. g. D'Ombrain (1955). Recent morphological studies by Payne and Risley (1976) support the placement of the Black Bittern in the genus *Ixobrychus* by Bock (1956) and Curry-Lindahl (1971). The following note describes a behavioural character for the species that may add further support to this treatment.

Along the Hann River, Cape York Peninsula, Australia, on 11 October 1974, I flushed an adult male Black Bittern several times from near the river bank and once from 10 m up in the foliage of a paperbark tree (*Melaleuca* sp.). About 400 m further along I came upon it about 30 m in front of me, standing on a fallen tree that bridged the river about one metre above its surface. The bittern remained quite still for nearly 15 minutes, in a squatting, semi-erect posture with its bill held up at an angle of about 40°. An immature Brown Goshawk (*Accipiter fasciatus*) suddenly flew into view and immediately stooped towards the bittern. The bittern moved only when the goshawk was a few metres away; whereupon it partially extended both wings outward about 20 cm in a narrow arc, ducked down, jumped off the log and furtively slipped into the water below, holding its head and neck above the water's surface, with its outstretched wings acting to support it. The goshawk alighted on the log and stood, with wings held outward and bill open, facing the bittern. With ungainly movements the bittern climbed onto a branch of the fallen tree resting on the water's surface and turned to face the goshawk while simultaneously erecting its head and body feathers. The wings were fully extended and raised upward until the dorsal surfaces were almost aligned with the raised back feathers. The neck was arched slightly downward and the bill was raised to an angle of about 60° facing the goshawk, which was now about two metres away and one metre higher than the bittern. Then the bittern opened its

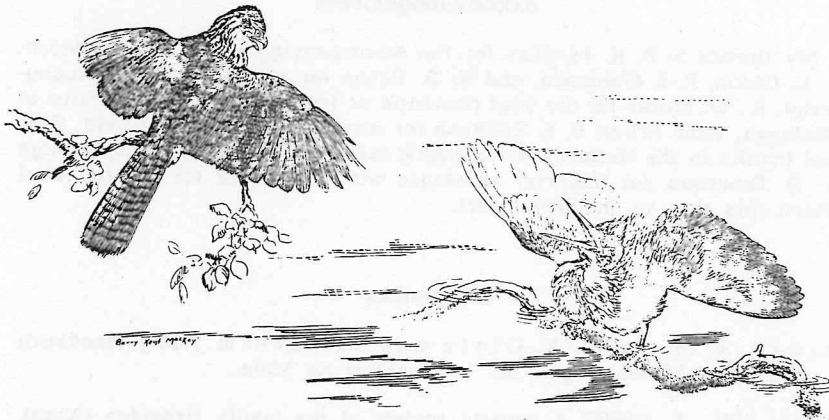


Figure 1. The Black Bittern at the peak of its display to the Brown Goshawk (see text).

bill, took a small step forward and became motionless (fig. 1). During this time the goshawk, with its wings still held outward, turned to keep facing the bittern, then moved its wings slowly up and down, snapped its bill and erected feathers on its crown and neck.

After the bittern became motionless, the goshawk relaxed its stance and in a matter of moments turned away and flew out of view. The bittern then relaxed its posture and hopped back to its original position on the fallen tree, where it paused, stretched out its neck and shook itself (body shake: McKinney 1965) before flying further down the river. No vocalizations were made by either the bittern or the goshawk.

The same posture has been observed many times in the Least Bittern (*Ixobrychus exilis*) (D. W. Mock, pers. comm.) and a similar display is illustrated for the Little Bittern (*I. minutus*) by Bauer and Glutz (1966: 374). The display termed „Pfahlstellung“ by Portielje (1926) for the European Bittern (*Botaurus stellaris*) is also similar.

Regarding the attack by the goshawk, Errington (1967: 222) has shown that potential predators can be discouraged from attacking if the prospective prey displays alertness to danger. Ludwig (1971) also pointed out that "the result may depend more on the relative sizes of predator and prey". Although the Brown Goshawk is very aggressive (Brown and Amadon 1968: 501), the size of the Black Bittern and its alertness to the goshawk's presence obviously made it an all too risky prey item, particularly for an immature and presumably inexperienced predator.

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