FISH-BAITING BEHAVIOUR OBSERVED IN STRIATED HERON *Butorides striatus*. On 18 July 1999 at approximately 0715 h a group of 11 birdwatchers, including myself, observed the following behaviour in an adult Striated Heron *Butorides striatus* while on a cruise of 'Yellow Waters' in Kakadu National Park, Northern Territory.

The bird was first seen walking along a branch of a spiral palm *Pandanus spiralis* approximately 300 mm above the water. When first seen, it held a small blue dragonfly/damsel fly in the tip of its beak. The bird was observed to reach forward and place the insect on the surface of the water. It then returned to a standing position on the branch and watched the insect for approximately 10 seconds, before reaching down to pick it up and returning to the standing position. After watching the water intently, it placed the insect in a different position. It repeated the above sequence two more times but, on placing the insect on the water a fourth time, the bird remained stretched forward, poised just above the water for approximately 5 seconds (see Figure 1) before plunging forward into the water. The bird seemed over-stretched and had trouble regaining its perch. It did not appear to have caught anything on this occasion.

Unfortunately some noise from our boat made the bird retreat under the spiral palm, leaving the insect in the water. We decided to leave the area so as not to disturb it further.

I concluded that the heron was using the insect as bait to lure fish to the surface of the water. The *Handbook of Australian, New Zealand and Antarctic Birds* (Marchant and Higgins 1990) describes feeding behaviour in the Striated Heron as being a patient wait or slow stalk in a hunched position, before lunging forward with neck fully extended at passing prey. It is also known to run after distant prey before slowing to a stalk as it reaches its prey, or to plunge head or feet first into water from a perch or the air. Feeding usually occurs at night or early morning, or to coincide with low tide. There is no reference to fish-baiting behaviour in this text or other Australian references which I researched.

*Butorides striatus* is found in many different areas of the world and is known by a variety of names—Green, Green-backed, Little Green, Striated and Mangrove Heron. It is essentially pantropical in south Americas, Africa south of the Sahara, south and east Asia to Japan, throughout the Philippines and Indonesia to New Guinea, Australia and the south-west Pacific. In other areas of the world, fish-baiting behaviour has been recorded in *Butorides spp*.

In Japan this heron has learnt from humans that fish are attracted to bread and other edible fragments and will flock these on to the surface of the water. When the fish come to the surface to take the bait (humans come to the same area to feed bread to the fish), they are taken by the heron. More recently these herons have started to use little feathers as bait, exploiting the inquisitive nature of fish (Attenborough 1998).

Similar behaviour has been reported in the Green Heron *Butorides virescens* at the Miami Seaquarium. Sisson (1974) documents a family group of herons (mother and two young) that had learnt to use pellets of fish food (which were sold through vending machines for visitors to feed the fish) to attract fish to come to the surface of the water within their strike range.

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Figure 1. A Striated Heron stretching towards the water from a branch of a spiral palm at Yellow Waters, Kakadu National Park.
One individual was noted to use bait as its preferred method of fishing. The bird would pick up a pellet of fish food, carry it to the edge of the water and carefully drop the pellet onto the water. It then froze in the typical heron stalking posture, watching the bait intently and struck as the fish rose to the bait. If the fish were not biting, it moved the bait to a different position and tried again. One observer saw this particular bird catch two dozen fish in 25 minutes, each time retrieving the bait between catches. Sisson (1974) also notes one previous report, some 15 years old, of this species using bread as bait.

However in Miami and Japan, the birds used artificial foods supplied by humans and were thought to have learnt the behaviour by watching fish being attracted to food thrown regularly and repetitively into the water. The heron in Kakadu National Park differed as it was using an insect and was not in the vicinity of human fish-feeding or fish-baiting activities. In the National Geographic article (Sisson 1974) Dr Myrberg from the University of Miami stated that while animals usually learn through repetition, they can rarely learn new behaviour from one or a very few experiences. It is not known how the Kakadu heron learnt its fish-baiting behaviour.

REFERENCES


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