

A WHITE-FACED HERON *Ardea novaehollandiae* USES POSSIBLE ANTI-GLARE FORAGING BEHAVIOUR

WILLIAM E. DAVIS, JR

Division of Science, College of Basic Studies, Boston University, Boston,
Massachusetts 02215, USA.

Received 12 December, 1985

Most herons are diurnal feeders and many forage in shallow water. They thus probably experience, particularly on bright sunny days, the problem of glare. Kushlan (1978) suggests that head tilting and the foraging behaviors of under-wing, double-wing and canopy feeding by herons help reduce glare, and that in canopy feeding the heron usually has its back to the sun. Hancock and Kushlan (1984) suggest that the posture of peering over reduces glare and distortion.

All of the above anti-glare behaviors involve postures or body movements of the wings, head or neck. This note reports on a possible anti-glare foraging behavior by a White-faced Heron *Ardea novaehollandiae* which depended on the direction in which the bird foraged. I was conducting timed foraging observations on White-faced Herons on 4 April, 1982, at Careel Bay, 30 km north of Sydney, N.S.W., Australia. The herons foraged in shallow water along the mud-flats which are oriented north-south. At 11.45, with the sun due north, there was no wind and less than 10% cloud cover. Hence there was substantial glare when I looked north. For 12 continuous minutes I tape-recorded the steps, prey attacks, prey captures, and behavioral notes of a White-faced Heron foraging in water from 5-15 cm in depth.

On nine occasions, the bird ran or walked quickly north 2-10 m, and then turned and foraged walking slowly south away from the glare. The heron made one unsuccessful prey capture attempt while walking north and was successful on eight of 10 attempts while walking south. Moving north into the glare, the bird averaged 1.5 steps per second, but while foraging south only 0.2 steps per second. Although 67% of the

steps taken by the heron were to the north, they took only 25% of the total foraging time. On five occasions the heron turned and walked north immediately after a prey capture attempt, but on five other occasions continued to forage to the south. On two occasions turns north were made without any prey capture attempt, and on two others the turn north occurred after the bird had continued to forage south following a capture attempt. In most cases the bird took more steps north than south, thus placing it in a new foraging area after each move. During the 12 minutes of observation its net movement was about 20 m to the north. At the time, I was convinced that the heron was foraging in a pattern that avoided glare, and after completing the observations I immediately walked out into the water where the heron had been foraging and looked north and south at "heron-eye" level. The glare looking north made it impossible for me to see anything below the water surface. To the south the visibility was excellent. My observations were consistent with the hypothesis that the heron foraged in a southerly direction to avoid the glare from the sun.

ACKNOWLEDGEMENTS

I thank Dr H. F. Recher for his criticism of an earlier draft of the manuscript.

REFERENCES

- Kushlan, J. A. (1978). Feeding ecology of wading birds. In Sprunt, A., Ogden, J. C. and Winckler, S. (Eds.). Wading Birds. Research Report No. 7, National Audubon Society, New York.
- Hancock, J. and Kushlan, J. A. (1984). The Herons Handbook. Harper and Row, New York.