

REFERENCES

- BERNACSEK, GARRY (2000): Fisheries of the Sundarbans. *Interim Technical Report No. 1 Vol. 1. Main Report*. Sundarbans Biodiversity Conservation Project. Khulna. Bangladesh. Pp. 23-26.
- CANNONIZADO, C.J. & MD. AKBAR HOSSAIN (1998): Integrated Forest Management Plan for the Sundarbans Reserved Forest. Vol. I. Mandala Agricultural Development Corporation and Forest Department, Ministry of Environment and Forest, Dhaka, Bangladesh. Pp. 1-1.
- GRIMMETT RICHARD, CAROL INSKIPP & TIM INSKIPP (1998): Birds of the Indian Subcontinent. Oxford University Press, India. Pp. 461-462.
- HOSSAIN, Z. & G. ACHARYA (1994): Mangroves of Sundarbans – Volume II: Bangladesh. IUCN- The World Conservation Union. Pp. 257.
- KHAN, ANISUZZAMAN M. (2000): Red Book of Threatened Birds of Bangladesh. IUCN-The World Conservation Union, Bangladesh. Dhaka. Pp. 39.
- PRAIN, O. (1903): The Flora of Sundarbans. *Rec. Bot. Surv. India*. 144: 231-272.

14. TERRITORIAL FIGHTING BEHAVIOUR OF GREAT INDIAN BUSTARD *ARDEOTIS NIGRICEPS*

Territorial fight in the Great Indian Bustard *Ardeotis nigriceps* occurs frequently among adult males during the breeding season (Rahmani 1989). Territorial fights between cocks were seen on seven occasions in Vingaber, Kachchh, Gujarat in the presence of females.

During territorial fights, males were in display and no change in posture between display and fighting was obvious

on all the occasions except for the erecting of crown feathers. Rahmani (1989) also reported that the fighting posture is similar to the display posture. As soon as the intruder was seen, the owner approached it, either with a short flight (if the intruder was slightly away), or with a rapid walk. After this approach, both the males started marching parallel to each other with their tails half or fully cocked for about 5 to 25 m (Fig. 1), then



Figs 1-6: Sequence of territorial fighting behaviour of the Great Indian Bustard

stopped and start shaking the gular pouches laterally (3-5 times) (Fig. 2). Immediately after, both made a 360° rotation, walked to the place where they started, and repeated the same sequence for about 5 to 7 minutes. Later, both the birds faced each other, jumped at the same instant from the ground and dashed their breasts (Fig. 3), and legs against each other (Fig. 4), as reported by Rahmani (1989). Once they landed, both held each other by locking their necks (Fig. 5). This was followed by pecking (Fig. 6) by the owner of the territory or the winner. After nearly three minutes of sparring, the loser released himself from the winner and flew to his territory or another spot. The different postures (Figs 1-6) (Art by VG) show the sequence in territorial fighting behaviour.

Interestingly enough, probably the same males (not certain, since the birds were not colour- or radio-tagged) on three occasions shared the same place without territorial fighting when the females were not nearby. Both the cocks ignored each other and foraged very close for about 10 minutes, after which the intruder flew to his own territory. This could be a strategy to save energy in the absence of females, as it would be disadvantageous for the bird to expend energy fighting, which if stored would help while courting a female. All this could be part of the species' mating strategy.

Another rare observation made during the breeding season in 2000 was of nine males displaying at the same time within 500 to 1000 m from each other in Vingaber. This could be due to lack of proper display sites in other areas of the grasslands, or because more females congregate at this location (five females were sighted here compared to one and rarely two in other places). No territorial fight was observed at that time. In this case also, territorial fighting would be disadvantageous to the males involved, compared to those not involved, who would be able to spend more time and energy in display to attract females.

February 24, 2003

JUSTUS JOSHUA¹

V. GOKULA²

S. F. WESLEY SUNDERRAJ¹

¹Gujarat Institute of Desert Ecology,
Post Box 83, Opp. Changleshwar Temple,
Mundra Road, Bhuj 370 001, Kachchh,
Gujarat, India.

²Department of Zoology, National College,
Tiruchirapalli 620 001,
Tamil Nadu,
India.

REFERENCE

RAHMANI, A.R. (1989): The Great Indian Bustard. Final Report. Bombay Natural History Society. 234 pp.

15. SPOTTED DOVE *STREPTOPELIA CHINENSIS* FEEDING ON WINGED TERMITES

Spotted Dove *Streptopelia chinensis* (Gmelin) is well known to be a granivore. It feeds on grains of paddy, jowar and other cereals, lentils and pulses, grass and weed seeds (COMPACT HANDBOOK, Ali and Ripley, 1987). But there is no record of it feeding on insects. We note here our recent observation on Spotted Doves feeding on winged termites in Sarkarpathy, Pollachi division of the Indira Gandhi Wildlife Sanctuary and National Park, Tamil Nadu.

On June 27, 2002 at 0820 hrs, while monitoring a scrub jungle transect, the feeding behaviour of two Spotted Doves attracted our attention. To our surprise, the doves were found feeding on winged termites (dead and alive) on the roadside. A similar observation was made again at 0925 hrs, in the same habitat, but this time eight Spotted Doves were feeding together on the termites. As we were observing this behaviour, a Three-striped Palm Squirrel *Funambulus palmarum*, a Grey Junglefowl *Gallus sonneratii* and Sirkeer Malkoha *Phaenicophaeus leschenaultii* also arrived and started feeding on these termites very close to each other. While the others are known insectivores, doves feeding on winged termites is unusual and deserves mention, sighting of eight

individuals feeding together on the termites clearly indicates that it is not an unusual feeding habit. Most likely, the Spotted Doves in this area are used to feeding on such seasonal insects or turn to insectivory during such seasons.

ACKNOWLEDGEMENTS

We are thankful to the Ministry of Environment and Forests, Government of India and the Bombay Natural History Society for support and facilities. The first author would like to acknowledge Mr. Ashfaq Ahmed Zarri and Mr. B. Senthilmurugan, Research Fellows, BNHS for their suggestions.

December 30, 2002

N. SIVAKUMARAN

ASAD R. RAHMANI

Bombay Natural History Society,
Hornbill House, S.B. Singh Road,
Mumbai 400 023, Maharashtra,
India.

Email: bnhs@bom4.vsnl.net.in



Joshua, Justus, Gokula, V, and Sunderraj, S F Wesley. 2005. "Territorial Fighting Behaviour of Great Indian Bustard *Ardeotis Nigriceps*." *The journal of the Bombay Natural History Society* 102, 114–115.

View This Item Online: <https://www.biodiversitylibrary.org/item/188383>

Permalink: <https://www.biodiversitylibrary.org/partpdf/154870>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Biodiversity Heritage Library

Copyright & Reuse

Copyright Status: In Copyright. Digitized with the permission of the rights holder

License: <http://creativecommons.org/licenses/by-nc/3.0/>

Rights: <https://www.biodiversitylibrary.org/permissions/>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.