

Short communications - Brevi note

Prey-dropping behavior in Sooty Gull, *Larus hemprichii*

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Prey-dropping behavior, described in detail by Beck (1982) and by Gamble & Cristol (2002), is known in 24 species of birds, including nine belonging to the genus *Larus* (Cristol & Switzer 1999) but not in Sooty Gull *Larus hemprichii*.

The species range is from northwest Indian Ocean to east coast of Africa, Red Sea, Arabian Gulf and Gulf of Homan and to South Pakistan (del Hoyo *et al.* 1996, Olsen & Larsson 2004). Its diet consists mainly of dead fish and fishermen's offal, eggs and chicks of other seabirds, turtle hatchlings (Urban *et al.* 1986, del Hoyo *et al.* 1996, Gallagher *et al.* 1984), prawns and small fish (Cramp & Simmons 1983), although ecology of this species behavior has not been fully documented (Fogden 1964, Ali & Ripley 1984, Grimmett *et al.* 1998).

On the 21st of August 2009, at 17:30, near Hamata, Egypt (24°21'N-35°18'E) two adults have been observed showing a prey drop behavior finalized at consumption of food.

One individual was carrying in his bill a white bivalve about 4 cm long, rising in flight about 6 m above the ground, to nose up for another meter and drop the shell on the rocks below. The shell of bivalve broke and immediately the gull, descending headfirst, ate the inside mollusk. No longer than a minute later the individual made again the same manoeuvre with the same outcome. Immediately a second gull repeated the same behavior with success. This behavior was taking place on a narrow strip of coral reef offshore that encloses a lagoon with mangroves. The bivalve belongs to the family Verenidae and has a particularly thick shell and a considerable weight. These characteristics, combined with the presence of rock outcrops, are the requirements needed to develop this type of behavior (Switzer & Cristol 1999). This foraging behavior, called prey-dropping behavior, is more complex than most other

behaviors and shows a particular level of cognitive ability (Emery 2006).

BIBLIOGRAPHY

- Ali S. & Ripley S.D. 1987. Compact Handbook of the birds of India and Pakistan. Oxford University Press, Oxford.
- Beck B.B. 1982. Chimpocentrism: bias in cognitive ethology. *Journal Human Evolution* 11: 3-17.
- Cramp S. & Simmons K.E.L. 1983. Handbook of the birds of Europe, the Middle East and Africa. The birds of the western Palearctic. Vol. III: waders to gulls. Oxford University Press, Oxford.
- Cristol A.C. & Switzer P.V. 1999. Avian prey-dropping behavior. II. American Crows and Walnuts. *Behavioral Ecology* 10:220-226.
- del Hoyo J., Elliott A. & Sargatal J. 1996. Handbook of the Birds of the World. Vol. 3: Hoatzin to Auks. Lynx Edicions, Barcelona.
- Emery N.J. 2006. Cognitive ornithology: the evolution of avian intelligence. *Philosophical Transactions of Royal Society* 361: 23-43.
- Fogden M.P.L. 1964. The reproductive behaviour and taxonomy of Hemprich's Gull *Larus hemprichii*. *Ibis* 106: 299-320.
- Gallagher M.D., Scott D.A., Ormond R.F.G., Connor R.J. & Jennings M.C. 1984. The distribution and conservation of seabirds breeding on the coasts and islands of Iran and Arabia. Pp. 421-456 in: Croxall J.P., Evans P.G.H. & Schreiber R.W. (ed.), Status and conservation of the world's seabirds. International Council for Bird Preservation, Cambridge.
- Gamble J.R. & Cristol D.A. 2002. Drop-catch behavior in play in Herring Gulls *Larus argentatus*. *Animal Behaviour* 63:339-345.
- Grimmett R., Inskipp C. & Inskipp T. 1998. Birds of the Indian Subcontinent. Christopher Helm, London.
- Olsen K.M. & Larsson H. 2004. Gulls of Europe, Asia and North America. Christopher Helm, London.
- Switzer P.V. & Cristol A.C. 1999. Avian prey-dropping behavior. I. The effects of prey characteristics and prey loss. *Behavioral Ecology* 10: 213-219.
- Urban E.K., Fry C.H. & Keith S. 1986. The birds of Africa. Vol. II. Academic Press, London.

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