

Faecal sac ingestion in birds: An observation in Red-vented Bulbul, Ashy-crowned Sparrow Lark and Jungle Babbler

Maulik S. Varu : Physiology Dept, Govt. Medical College, Bhavnagar 364001. drmaulikvaru@yahoo.com

On 19 July 2015, while birding in Hingolghadh Nature Education Sanctuary, Dist. Rajkot, I came across a nest of Red-vented Bulbul (*Pycnonotus cafer*) in a Neem (*Azadirachta indica*) approx. 8 feet above the ground. Two nestlings were visible in the nest and both the parents were busy feeding them. When one parent bird came to the nest, one of the nestlings changed its position by lowering its head and protruding its back to the nest-rim. The chick pushed a whitish faecal sac from its cloaca, which was immediately picked up by the parent and to my surprise, swallowed it whole rather than dropping it away. I managed to take photos and video of this event. Previously I had also observed and videographed faecal sac ingestion in Ashy-crowned Sparrow Lark (*Eremopterix griseus*) on 5 October 2010 near Vibhapar, Dist. Jamnagar and Jungle Babbler (*Turdoides striata*) on 6 April 2010 in Medical College Campus, Jamnagar.



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Many species of birds, especially passerines consume the faecal sacs produced by their nestlings during first few days (Blair & Tucker 1941). This is presumably to aid in concealing the young from predators (Weatherhead 1984), in addition to serving a sanitary function. Two alternate hypotheses have been proposed to explain this phenomenon:

Parental nutrition hypothesis (Gluck 1988, McGowan *et al.* 1995, Giacomo *et al.* 1998)

Before the nestlings are a few days old, their inefficient digestive processes leave significant amounts of nutrients behind. Eating it allows the parents to recycle water and nutrients, making the 'best of a bad job' during periods of high energetic requirements. In addition, it may be an alternative strategy to delay hunger and to facilitate the allocation of food to the offspring. After a few days, decrease in faecal sac consumption can be explained by increase in the size and decrease in the nutritive value of the faecal sacs which may prove costly to parent's digestive tract.

The economic disposal hypothesis (Hurd *et al.* 1991)

The benefits of consuming and not carrying a faecal sac from the nest may be that parents can remain at the nest longer for other purposes (e.g., brooding) and that they avoid the transportation costs associated with its disposal. However as the nestlings get older, the need for brooding diminishes and the feeding rate increases, so parents would need to spend less time at the nest and hence decrease faecal sac consumption.

In addition to above hypotheses, a possible explanation for the decrease of faeces ingestion after few days may be increasing intensity of begging by the nestlings. Begging may lead to reluctance on the part of the parent to stay at the nest in the presence of active young. (McCarty 1996, Giacomo *et al.* 1998)

It is also possible that parents use the contents of faecal sacs to assess the physiological condition of nestlings (McGowan *et al.* 1995).

Acknowledgement

I thank Prasad Ganpule for helping me with the references.

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