Short Communication

Interspecific feeding by Indian Robin (*Copsychus fulicatus*) to Brown Rock Chat (*Oenanthe fusca*)

Dipesh Kumar Jangir¹, Rounak Choudhary²*, Vivek Sharma¹, Subhash Chandra¹

Abstract - Interspecific feeding is recorded in numerous bird species across the world, however, there are limited published observations from India. We provide the first documentation of a non-brood parasitic interspecific feeding between an Indian Robin (*Copsychus fulicatus*) and a Brown Rock Chat (*Oenanthe fusca*) fledgling from the Central Aravalli hill region of Ajmer, Rajasthan, India.

Key words: interspecific feeding, alloparenting, Brown Rock Chat, Indian Robin, Ajmer.

Riassunto - Alimentazione interspecifica da parte del pettirosso indiano (*Copsychus fulicatus*) alla sassicola bruna (*Oenanthe fusca*).

L'alimentazione interspecifica è stata registrata in numerose specie di uccelli in tutto il mondo, ma le osservazioni pubblicate in India sono limitate. Forniamo la prima documentazione di un'alimentazione interspecifica non parassitaria tra un pettirosso indiano (*Copsychus fulicatus*) e una sassicola bruna (*Oenanthe fusca*) nella regione collinare dell'Aravalli centrale di Ajmer, Rajasthan, India.

Parole chiave: Ajmer, alimentazione interspecifica, cure alloparentali, *Copsychus fulicarius, Oenante fusca*.

BACKGROUND

Interspecific feeding is an uncommon behavior in which an individual of one species feeds individuals of another species (Emlen & Vehrencamp, 1983). In major instances, interspecific feeding is exhibited by species involved in brood parasitism (Davies, 2000). The overlapping of habitat and territories are perquisites for interspecific feeding (McNair & Duyck, 1991). Many studies sug-

- ¹ Department of Zoology, Maharshi Dayanand Saraswati University, Maharshi Dayanand Saraswati University, Ajmer, Rajasthan, India.
- ² Department of Environmental Science (Centre for Excellence), Maharshi Dayanand Saraswati University, Maharshi Dayanand Saraswati University, Ajmer, Rajasthan, India.
 - * Corresponding author: rounakchoudhary17@gmail.com

© 2023 Dipesh Kumar Jangir, Rounak Choudhary, Vivek Sharma, Subhash Chandra

Received for publication: 7 May 2023 Accepted for publication: 26 May 2023 Online publication: 14 December 2023 gest that begging fledglings may lead to indiscriminate interspecific feeding by allospecific individuals (Farmer et al., 2008). Helper species may acquire parental care skills by involving in interspecific feeding and alloparenting activities which might help take care of their offspring in future (Riedman, 1982). Sometimes birds involve in such activities to lessen the loud begging and calling of fledglings which might attract predators to nesting sites (Sealy & Lorenzana, 1997).

OBSERVATION

We observed an interspecific feeding between an Indian Robin (*Copsychus fulicatus*) feeding to the fledgling of Brown Rock Chat (*Oenanthe fusca*) in the Aravalli hills (26°30'18.8"N 74°40'24.9"E) of Ajmer district, Rajasthan, India. In March 2023, a male Indian Robin was seen as a helper in feeding the fledgling of a Brown Rock Chat, as recorded in photos (Fig. 1) and videos. The biological parents were simultaneously feeding the fledgling. The instance was recorded a week-long period and for 27 times Indian robin fed the fledgling of Brown rock-chat.

DISCUSSION

We present here the first record of interspecific feeding of Brown Rock Chat (*Oenanthe fusca*) by Indian Robin (*Copsychus fulicatus*), both species are terrestrial and endemic to the Indian sub-continent, prefer nesting in scrubland and rocky area and belong to the same family, Muscicapidae. The interspecific feeding behavior was not described in these species earlier (Kumar, 2012; Das *et al.*, 2017)

Various studies have linked such instances with families of species, sex of helpers, nest distances, the morphology of fledglings and parental instincts as possible reasons causing interspecific feeding (Shy, 1982; Harmáčková, 2021). Recently published literature shows that the Order Passeriformes is primarily associated with interspecific feeding behaviour (Hall *et al.*, 2010; Fiss *et al.*, 2016; Burbidge, 2018; Reitsma, 2019). The majority of songbird species are altricial, their young need care and feed from parents (Skutch, 1957), this may provide one species with more chances to meet other species' nests and to expend the energy and urge to care for nestlings else-









Fig. 1 - A) Brown Rock Chat (Biological Parent) feeding the chick. / La sassicola bruna (genitore biologico) che nutre il pulcino. B) Adult male Robin feeding the Brown Rock Chat's chick. / Pettirosso indiano maschio adulto che nutre il pulcino di sassicola bruna.

where before his progeny hatch (Skutch, 1961; Cockburn, 1998). In other cases, there is a possibility that one species can be possibly lured by loud calls of nearby nestlings of other species (Dearborn & Lichtenstein, 2002; Morozov, 2014; Burbidge, 2018). Interspecific feeding occurs mostly during the breeding season and thus might be linked with nesting and breeding behaviours. However, other than straightforward interpretations, no significant justifications are provided for such behaviours. Controlled investigations should be used to identify the mechanisms behind such behaviour and reveal whether interspecific feeding is adaptive or just an aberration with no evolutionary significance.

REFERENCES

- Burbidge G., 2018 European Starling pair feeds a juvenile Downy Woodpecker. *Ontario Birds*, 36: 170-173.
- Cockburn A., 1998 Evolution of helping behaviour in cooperatively breeding birds. *Annual Review of Ecology and Systematics*, 29: 141-177.
- Das K., Maheshwari R. & Mandrik I., 2017 Some behavioural observations of the Indian Robin *Saxicoloides fulicata*. *Indian Journal of Scientfic Research*, 12 (2): 107-110.
- Davies N., 2000 Cuckoos, Cowbirds and Other Cheats. *Poyser*, London. http://dx.doi.org/10.5040/9781472597472

- Dearborn D. C. & Lichtenstein G., 2002 Begging behaviour and host exploitation in parasitic cowbirds. In: The evolution of begging. Competition, cooperation & communication. Wright J. & Leonard M. L. (eds.). *Kluwer Academic Publishers*: 361-387.
- Emlen S. T. & Vehrencamp S. L., 1983 Cooperative breeding strategies among birds. In: Perspective in Ornithology. Emlen S. T. & Vehrencamp S. L., Ligon J. D. & Rowley I. (eds.). *Cambridge University Press*: 93-120134.
- Farmer C., Frederick B. A., Banko P. C., Stephens R. M. & Snow C. W., 2008 Palila (*Loxioides baillueui*) fledgling fed by Hawai'I 'amakihi (*Hemignathus virens*). Wilson Journal of Ornithology, 120: 416-418.
- Fiss C. J., McNeil D. J., Poole R. E., Rogers K. M. & Larkin J. L., 2016 Prolonged interspecific care of two sibling Golden-winged Warblers (*Vermivora chrysoptera*) by a Black and white Warbler (*Mniotilta varia*). *Wilson Journal Ornithology*, 128: 921-926.
- Hall M. L., Murphy S. A., Churchwell R. T. & Milenkaya O., 2010 Interspecific feeding between an insectivore and a granivore male Purple-crowned Fairy-wren *Malurus coronatus* feeds nestling Crimson Finches *Neochmia phaeton. Corella*, 34: 49-50.
- Harmáčková Ľ., 2021 Interspecific feeding in birds: a short overview. *Acta Ornithology*, 56 (1): 1-14.
- Kumar A., 2012 Breeding biology of Indian Robin *Saxicoloides fulica* in Northern India. *Journal of Experimental Zoology India*, 15 (1): 57-61.
- McNair D. B. & Duyck B., 1991 Interspecific feeding among some oscines. *The Chat*, 55: 9-11.
- Morozov N. S., 2014 Involvement of Great Tits *Parus major* in feeding young of nearby nesting Blue Tits *Parus caeruleus. Russkiy Ornitologicheskiy Zhurnal*, 23: 1412-1416.
- Reitsma L. R., Burns C. & Sullivan J., 2019 *Poecile atricapillus* (Black-capped Chickadee) feeding *Catharus guttatus* (Hermit Thrush) nestlings. *Northeast Naturalist*, 26: 15-17.
- Riedman M. L., 1982 The evolution of alloparental care and adoption in mammals and birds. *The Quarterly Review of Biology*, 57: 405-435.
- Sealy S. G. & Lorenzana J. C., 1997 Feeding of nestling and fledgling brood parasites by individuals other than the foster parents: A review. *Canadian Journal of Zoology*, 75: 1739-1752.
- Shy M. M., 1982 Interspecific feeding among birds: A review. *Journal of Field Ornithology*, 53 (4): 370-393.
- Skutch A. F., 1957 The incubation patterns of birds. *Ibis*, 99 (1): 69-93.
- Skutch A. F., 1961 Helpers among birds. *Condor*, 63: 198-226.