



A freshwater crab (*Barytelphusa* sp.) feeding on a catfish (*Pterocryptis* sp.)

The freshwater crab, *Barytelphusa cunicularis* (Westwood, 1836), is a common and widespread crustacean species inhabiting freshwater streams throughout India except the northeast (Pati *et al.* 2014, Padghane & Chavan 2018a). It is an omnivore that feeds on small crustaceans, gastropods, insects and aquatic vegetation (Kalpana & Meena 2016). This species is commonly collected as a food commodity and is also often reared in captivity for the same purpose (Padghane *et al.* 2016). In captivity, these crabs seem to prefer animal-based food (Kobayashi 2009) and are generally fed about 10% of their total biomass in prawn and rice flakes daily (Padghane & Chavan 2018b). Observations of *B. cunicularis* feeding in nature are scant in the literature, and to the best of my knowledge there have not been any reports of the species feeding on fish. Herein I report the first observation of *B. cunicularis* feeding on a Malabar silurus, *Pterocryptis wynadensis* (Day, 1873), a type of catfish.

At 2115 h on 25 December 2019, I observed a *B. cunicularis* (cephalothorax ~10 cm in width) feeding on a *P. wynadensis* (~14 cm in length) at the edge of a pool in a seasonal streambed in Agumbe (13.5193°N, 75.0956°E), Karnataka, India. The crab was identified as *B. cunicularis* based on characters mentioned in Pati *et al.* (2014) and the catfish was identified as *P. wynadensis* based on characters mentioned in Mishra *et al.* (2013). The catfish was moving weakly, because the crab's right chela was grasping the catfish just behind its right pectoral fin, and the left chela was holding the catfish's caudal fin. Over the course of 10 minutes, I observed the crab bring the caudal region of the catfish to its mouth with its left chela and slowly ingest it by tearing off small pieces with its mouthparts (Fig. 1).

Similar food-handling behaviour has been documented by Kalpana & Meena (2016). This

observation is particularly novel because of (1) the prey being a catfish, and (2) the size of the prey in relation to the crab. It remains unclear how the crab managed to catch and subdue such a large prey animal; perhaps an ambush hunting strategy was employed. *Cancer magister*, another crab species known to feed on fish, has been shown to undergo an ontogenetic shift in food preferences from smaller, slow moving prey like bivalves as juveniles, to larger, faster prey like fish as adults (Stevens *et al.* 1982). It seems likely that *B. cunicularis* undergoes a similar ontogenetic shift as it ages. Further research on the food habits and hunting strategies of *B. cunicularis* is warranted for a more complete understanding of its ecology.



Figure 1. *Barytelphusa cunicularis* feeding on *Pterocryptis wynadensis* at Agumbe, Karnataka, India.

Acknowledgements

I thank Sameer K. Pati and Ram Prasad for their assistance in identifying the crab and the catfish.

Literature cited

- Kalpana, P. and P. Meena (2016). Role of appendages in feeding behavior in freshwater crab *Barytelphusa cunicularis* and prawn *Macrobrachium kistnensis*, (Decapoda, Crustacea). *International Journal of Recent Scientific Research*, 7(3): 9327–9330.

- Kobayashi, S. (2009). Dietary preferences of the Japanese mitten crab *Eriocheir japonica* in a river and adjacent seacoast in north Kyushu, Japan. *Plankton & Benthos Research*, 4(2): 77–87.
- Mishra, S.S., L. Kosygin, P.T. Rajan, and K.C. Gopi (2013). Pisces: 139 – 237pp. In: Venkataraman, K., A. Chattopadhyay, and K.A. Subramanian (eds.). Endemic Animals of India (Vertebrates), Zoological Survey of India, Kolkata.
- Padghane, S., S.P. Chavan, and D. Dudhmal (2016). Fresh water crab *Barytelphusa cunicularis* as a food commodity: weekly crab market study of Nanded city, Maharashtra, India. *International Journal of Fisheries and Aquatic Studies*, 4(4): 14–18.
- Padghane, S.N. and S.P. Chavan (2018a). Habitat ecology of burrowing crab *Barytelphusa cunicularis* in the tributaries of Godavari river, Nanded, India. *Advances in Bioresearch*, 9(3): 76–80.
- Padghane, S. and S. Chavan (2018b). Habitat preference and maintenance of freshwater crab *Barytelphusa cunicularis* in concrete tank culture model. *Journal of Entomology and Zoology Studies*, 6(3): 334–339.
- Pati, S.K., R.M. Sharma, and P.M. Sureshan (2014). Freshwater crabs (Crustacea: Decapoda: Brachyura: Gecarcinidae) in the collection of Western Ghats Regional Centre, Zoological Survey of India, Kozhikode. *Records of the Zoological Survey of India*, 114(4): 651–668.
- Stevens, B.G, D.A. Armstrong, and R. Cusimano (1982). Feeding habits of the dungeness crab *Cancer magister* as determined by the index of relative importance. *Marine Biology*, 72(1): 135–145.

Submitted: 7 June 2021, Accepted: 17 Sep. 2021

Section Editor: Lee Harding

Y. Kalki

Madras Crocodile Bank Trust & Centre for Herpetology, Mamallapuram, Tamil Nadu, India

E-mail: yatin.kalki@gmail.com