



# Land Snails Feeding on Dead Frogs

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Anurans are regular food for many predators and scavengers, including a variety of invertebrates (e.g., Hinshaw and Sullivan 1990; Toledo 2005; Dehling 2007; Yadav et al. 2021). Land snails feed on various organic materials that include green or dead herbaceous plants, leaf litter, discarded fruit remnants, and other invertebrates (e.g., Hotopp et al. 2013; Imevore and Ajayi 1993; Bhosale et al. 2021a); however, they also consume empty snail shells, sap, animal scat and carcasses, and even limestone rock or cement. Carnivorous snail species feed on nematodes and other snails (e.g., Ismail et al. 2003; Ramzy 2009; Bhosale et al. 2021b). Herein we report two observations of land snails feeding on the skin of dead frogs.

At 1042 h on 28 August 2017, on a tarred road at Balemane, Karwar, Uttar Kannada, Karnataka, India (14.89972°N, 74.43527°E; elev. 40 m asl), we observed an ariophantid snail (*Ariophanta* cf. *belangeri*) feeding on a road-killed Indian Skipper Frog (*Euphlyctis cyanophlyctis*) (Fig. 1). Upon closer examination, the snail clearly had been feeding on the skin rather than the flesh of the frog. At 0729 h on 12

August 2018, on a roadside at Kolhapur, Maharashtra, India (16.67420°N, 74.2420°E; elev. 571 m asl), we observed a Horntail Snail (*Macrochlamys indica*) feeding on the outer epidermis of a road-killed Syhadra Cricket Frog (*Minervarya syhadrensis*) (Fig. 2).

That both snails were feeding on skin and apparently avoiding muscular parts is of interest and worthy of further research, especially since amphibian integumentary gland secretions contain toxins that can deter at least some predators and presumably some scavengers (Clarke 1997). These observations also suggest that land snails more frequently scavenge dead vertebrates than has been recorded.



**Fig. 1.** An ariophantid snail (*Ariophanta* cf. *belangeri*) feeding on the skin of a road-killed Indian Skipper Frog (*Euphlyctis cyanophlyctis*). Photograph by Parashuram Bajantri.



**Fig. 2.** A Horntail Snail (*Macrochlamys indica*) feeding on the outer epidermis of a road-killed Syhadra Cricket Frog (*Minervarya syhadrensis*). Photograph by Saurabh Kininge.

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