

Bugs & All

Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

The invasive Giant African Snail in Sikkim Himalaya



Lissachatina fulica belongs in the subfamily Achatininae which is up to 15 cm in length and 5–8 cm wide having darker brown and cream bands. Recently, this invasive species was found in the Himalayan region of Sikkim at Melli Paiyoung Gram Panchayat Unit (GPU) and Jorethang subdivision of Sikkim at an altitude ranging 155–1,200 m. The GPS coordinates of representative specimen collected site of Sikkim is at 27.112 N 88.465E at 753 m.

The active period of this species is found during rainy season of the year in Sikkim. It always avoids dry climate sealing its shell. The eggs of this species are found in batches of 200–300, but can lay up to 1,000 eggs.

These eggs can hatch within 15 days, so the development of this pest species perpetually damages crops resulting in losses to the farmers. *Lissachatina fulica* can live up to five years. This invasive species is pestiferous in nature in all parts of the world (Fontanill et al. 2007) and reported in different states of India (Sridhar et al. 2014; Sarma et al. 2015; Thakuri et al. 2019).

This species is not reported from the natural forest habitat of Sikkim, however, the alien species is now present in the potential farmlands of Sikkim namely, Melli Paiyoung GPU, Jorethang subdivision and some lower tropical belt of Sikkim. A noteworthy point is that *Lissachatina fulica* was first noticed

by the farmers in Melli Paiyoung, Sikkim in 2017 after their farm crops were damaged. The population density of this species in the farmland during 2020–2021 survey was 4–5 per m², which is alarming. Thus, the population explosion of *Lissachatina fulica* will definitely harm the organic crops of Sikkim.

The food plants of *Lissachatina fulica* are *Pisum sativum*, *Capsicum annuum*, *Capsicum frutescens*, *Brassica oleracea*, *Sechium edule*, *Lycopersicon esculentum*, *Brassica oleracea* var. *botrytis*, *Allium cepa*, *Solanum melongena*, *Daucus carota*, *Raphanus sativus*, *Brassica oleracea* var. *capitata*, *Phaseolus vulgaris*, *Glycine max*, *Vigna radiata*, *Brassica campestris* and *Allium hookeri*.

The most effective control of this species is found to be by spraying 30 kg of sodium chloride (NaCl) in one acre farm land. This treatment can kill this pest and destroy the eggs. Other potential alternate way to control the pest is by boiling for an hour-and-half until it is cooked properly and use as feed for the piggery.

References

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