

Bugs R All

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

Short note on the occurrence of the African Giant Snail in Chennai, Tamil Nadu

Lissachatina fulica Bowdich commonly known as the Giant African Snail (GAS) is a global invasive predator native to the eastern coast of Africa. In India, GAS was initially introduced in Calcutta by a renowned malacologist W.H. Benson in 1847 (Srivastava 1992). Since then, the species has spread widely and has been reported across several southern states of India, including Kerala, Tamil Nadu, and Karnataka. In Tamil Nadu, *L. fulica* has been observed in multiple districts, such as Chennai, Chidambaram, Coimbatore, and Chengalpattu (Raut & Ghose 1984). The GAS being a generalist species consumes over 500 plant species and has consistently been listed among the '100 Worst Alien Invasive Species' (Lowe et al. 2000; Invasive Species Specialist Group 2012). This emphasizes the need for documenting the spread of *L. fulica* and assessing its ecological



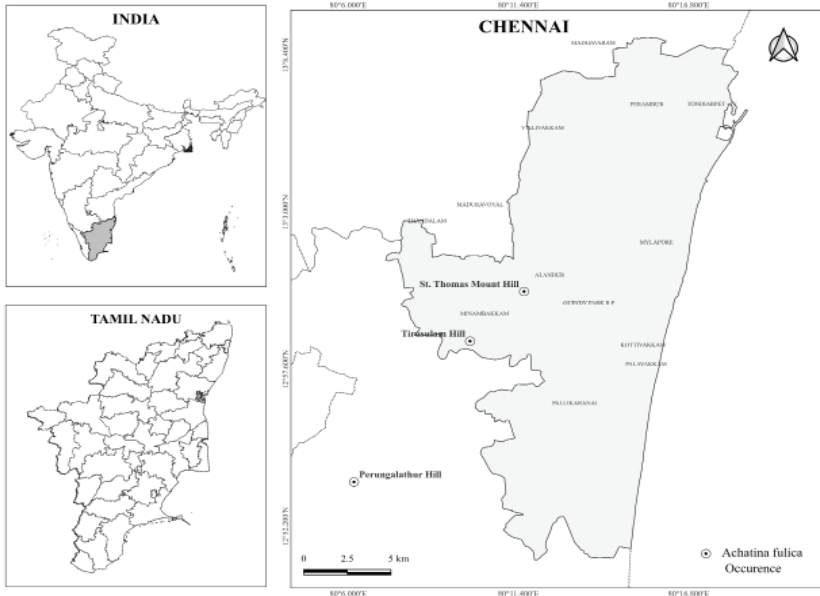
Lissachatina fulica observed in Chennai. © Phillimon Smart Edward.

impacts. Such efforts are particularly critical in regions like Chennai District, where detailed records remain sparse

since the initial observation by Raut & Ghose (1984). The distribution records of *L. fulica* were collected during

Bugs & RALL

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



GPS points of the distribution records of *Lissachatina fulica* in Chennai, Tamil Nadu, India.

opportunistic sampling conducted from September to November 2024 in Chennai District, Tamil Nadu. Field surveys were carried out across various urban and semi-urban locations, based on accessibility and visual confirmation of the species. GPS coordinates of the observed individuals were recorded using a handheld GPS device with an accuracy of ± 3 meters. Populations of *L. fulica* were confirmed at three key locations: St. Thomas Mount (13.0047 N, 80.1931 E), Tirusulam (12.976209 N,

80.164528 E), and Perungalathur Hills (12.895543 N, 80.103184 E).

These areas, characterized by moderate vegetation and varying degrees of human activity, highlight the presence and adaptability of this invasive species within the district.

This invasive gastropod serves as an intermediate host for several parasitic nematodes, including zoonotic species such as *Angiostrongylus cantonensis* and *A. costaricensis*, which cause eosinophilic meningoencephalitis and

abdominal angiostrongyliasis, respectively (Alicata 1991; Cowie 2013). These infections, often transmitted through ingestion of contaminated gastropods or their residues, pose significant public health risks in regions where the snail has established populations (Graeff-Teixeira et al. 2009).

Chennai, a densely populated metropolitan city in Tamil Nadu, faces significant risks from the presence of *L. fulica*, a vector for zoonotic diseases like *eosinophilic meningoencephalitis*, which poses serious public health concerns (Cowie 2013). The city's susceptibility to flooding during the monsoon season (Radhakrishnan et al. 2024) further exacerbates the spread of infections, as floodwaters disperse snails and contaminate resources. This risk is heightened during the rainy winter months when snails emerge from hibernation (Schweizer et al. 2019). Therefore, these factors emphasize the urgent need for a comprehensive population survey of *L. fulica* in Chennai.



Bugs R All

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

This should be followed by effective monitoring and management strategies to mitigate the associated health and ecological threats.

References

Alicata, J.E. (1991). The discovery of *Angiostrongylus cantonensis* as a cause of human eosinophilic meningitis. *Parasitology Today* 7(6): 151–153.

Cowie, R.H. (2013). Eosinophilic meningitis caused by *Angiostrongylus cantonensis*, the rat lungworm: biology, distribution, epidemiology, detection, diagnosis, treatment, and management. *Hawai Journal of Medicine & Public Health* 72(6 Suppl 2): 3–4.

Graeff-Teixeira, C., A.C.A. da Silva & K. Yoshimura (2009). Update on eosinophilic meningoencephalitis and its clinical relevance. *Clinical Microbiology Reviews* 22(2): 322–348.

Invasive Species Specialist Group (2012). Global Invasive Species Database. *Achatina fulica*. <https://www.iucngisd.org/gisd/species.php?sc=64>. Accessed on 19.xi.2024.

Lowe, S., M. Browne, S. Boudjelas & M. De Poorter (2000). *100 of the world's worst invasive alien species: a selection from the global invasive species database*. Invasive Species Specialist Group, Auckland, New Zealand, 12 pp.

Radhakrishnan, S., S.K.D. Rajasekaran, E.R. Sujatha & T.R. Neelakantan (2024). A comparative study on 2015 and 2023 Chennai flooding: a multifactorial perspective. *Water* 16(17): 2477.

Raut, S.K. & K.C. Ghose (1984). Pestiferous land snails of India. Zoological Survey of India, Calcutta, Technical Monologue 11, 151 pp.

Schweizer, M., R. Triebkorn & H.R. Köhler (2019). Snails in the sun: Strategies of terrestrial gastropods to cope with hot and dry conditions. *Ecology and Evolution* 9(22): 12940–12960.

Srivastava, P.D. (1992). *Problem of Land Snail Pests in Agriculture: A Study of the Giant African Snail*. Concept Publishing Company, New Delhi, 234 pp.

Phillmon Smart Edward¹, Jeyasubashini Regupathikannan² & Arockianathan Samson³

^{1&2} Centre for Landscape Ecology, R&D Division, Fedstan GMC Registered Private Limited, Chennai, Tamil Nadu 600040, India.

² Foundation for Revitalisation of Local Health Traditions, The University of Trans-Disciplinary Health Sciences and Technology (FRLHT-TDU), # 74/2, Jarakabande Kaval, Attur, Bengaluru, Karnataka 560064, India.

³ Bombay Natural History Society, Vulture Programme, Vulture Conservation Breeding Centre, Bhopal, Madhya Pradesh 462044, India.

Email: ¹phillmonsmart@gmail.com (corresponding author)

Citation: Edward, P.S., J. Regupathikannan & A. Samson (2025). Short note on the occurrence of the African Giant Snail in Chennai, Tamil Nadu. *Bugs R All* #289, In: *Zoo's Print* 40(3): 09–11.

Bugs R All is a newsletter of the Invertebrate Conservation and Information Network of South Asia (ICINSA)



zooreach
Zoo Outreach Organisation

