

Identity: *Limicolaria flammea*

Systematics: Achatininae, Achatinidae, Pulmonata, Gastropoda, Mollusca

Common names: None



Specimens from Singapore. Photo courtesy of Tan S. K.



Adult Limicolaria flammea (Müller) from Seletar West Farmway, Singapore. Photo courtesy of Tan S. K.

Description

Dimensions

Up to 119 mm in height, and 37 mm in maximum diameter.

Shell description

“Shell perforate, ovate-elongate, rather thin, tawny white, ornamented with wide wavy chestnut streaks; spire long-conic, the apex obtuse, white. Whorls 7½ slightly convex, granulose-decussate above, the last smooth below the periphery and three-sevenths the

total length; not swollen. Columella slightly arcuate, lilac tinted. Aperture nearly vertical, subrhombic-semi-oval, angular at base, interior bluish, with streaks showing through; peristome simple, unexpanded, the columellar margin dilated to the base, partially reflected over the umbilicus.” (Crowley & Pain, 1970)

Pest Significance

Like other achatinids, this species is unselectively phytophagous, and potentially represents a threat to most economically important plant species.

Geographic Distribution

Original distribution: Native to West Africa: Ghana to Angola.

Introduced to: Southeast Asia: Singapore, where it is replacing the established population of *Lissachatina fulica*.

Life History

Very little is known.

Movement and Dispersal

Natural spread: Natural spread is extremely slow.

Human-assisted spread: Transportation on local produce and spread by international travelers for food. In Singapore, it is believed to have been introduced on horticultural plants. It is occasionally intercepted by Agricultural Inspectors associated with shipping containers and in baggage of international travelers at US airports, such as Houston and Atlanta from Nigeria and Liberia.

Parasitology and Public Health Significance

Limicolaria flammea is potentially an intermediate vector of the Rat lungworm (*Angiostrongylus cantonensis*), a parasitic nematode worm causing eosinophilic meningoencephalitis/cerebral angiostrongyliasis in humans and similar conditions in livestock including household pets. The disease can be contracted from the consumption of undercooked snail meat and from the residual slime left on uncooked fruits and vegetables. This disease causes a wide variety of neurological disorders, permanent brain damage, blindness and even death.

Selected References

Bequaert, J.C., 1950, Studies in the Achatininae, a Group of African land Snails. *Bulletin of the*

*Museum of Comparative Zoölogy at Harvard
College*, **105**(1): 1-216, 81 pl.

Mead, A.R., 1979, Pulmonates. Volume 2B.

*Economic Malacology, with particular reference to
Achatina fulica*. Academic Press, London, 150 pp.