

# Bugs R All

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

## Alien in my garden: a new record of an exotic *Laevicaulis* slug species in northern India



*Laevicaulis haroldi*. Photo credit: Adil Khan

### Introduction

Snails and slugs are found to inhabit a vast variety of habitats (Solem 2019), from marine to terrestrial. Their physio-morphological adaptations allow them to adjust to micro-climatic refuges like fallen logs, rock crevices, and leaf litter (Dundee 1980; Govender 2007; Magare 2015). *Laevicaulis haroldi* (Dundee, 1980) (Gastropoda: Stylommatophora: Veronicellidae) is a terrestrial slug species that is native to KwaZulu-Natal in south-eastern

South Africa (Dundee 1980; Govender 2007; Herbert 1997; MolluscaBase 2018) and is an Endangered species (Herbert 2013). It was discovered by Harold A. Dundee in 1977 in a marshy lot in Durban City, South Africa. In the subsequent years, it was identified by D.S. Dundee in his article about the species in 1980. In India, *L. haroldi* was first observed and indentified in three districts of Maharashtra in western India (Magare 2015).

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Photos of *Laevicaulis haroldi* slug. A - contracted slug in comparison to a coin, B and C - free moving slug, D - underside of the slug showing sole. Photo credit: Adil Khan

A single specimen of the species was found attached to the underside of a bird feeder in the author's garden (28.567N & 77.357E) at midday of 27 September 2018 with temperature 37°C. It was collected using a pair of clean forceps and placed in a glass jar for the purpose of documentation, including external measurement and morphology. The individual was photographed using the camera Canon Powershot SX50 HS. The images were posted on iNaturalist for identification and were identified as *Laevicaulis haroldi* by experts. The slug was released after documentation.

## Results and Discussion

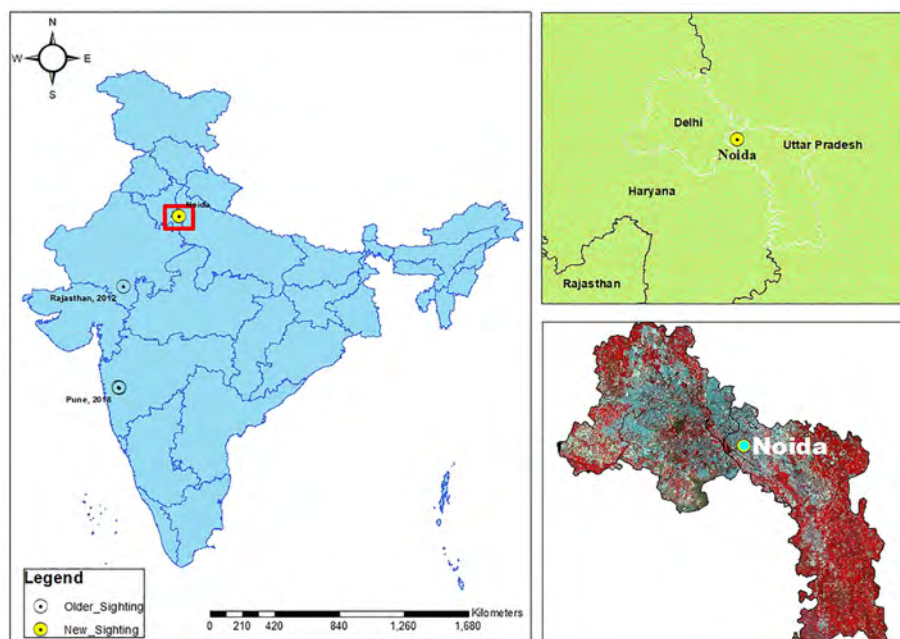
The specimen collected was a single individual bearing some similarity to *Laevicaulis alte* (a common slug), though very different morphologically. Unlike *L. alte*, the specimen's dorsal body was wheatish-brown in colour with irregular white bands spread across laterally giving a wrinkly appearance, while both ends had an aggregation of black patches.

The slug was initially found to be in an inactive state. Interestingly, the slug lost its wrinkly appearance when it was fully



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## Sightings of *Laevicaulis haroldi* in India

hydrated. The anterior end possesses two sets of tentacles. The sole is translucent and covers nearly the entire length of the slug's ventral body. The specimen was measured and the total length was found to be 48mm and the width to be 10mm.

Previous sightings of the same species were recorded in the states of Rajasthan and Maharashtra in India (iNaturalist n.d.; Project Noah n.d.).

Additionally, slugs were also recorded from the base of the Satpuda Mountains in Maharashtra (Magare 2015). The presence of exotic slugs in India can possibly be attributed to the introduction of flowering

plants from different countries (Raheem et al. 2014).

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