

Russell's Viper

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Russell's Viper Latest News

Studies carried out in mice have demonstrated that two approved drugs — varespladib and marimastat — were effective in countering systemic and lethal effects of Russell's viper (*Daboia russelii*) venom either individually or in combination.

About Russell's Viper

- Russell's viper is a **highly venomous** terrestrial snake of the family **Viperidae found in Asia**.
- It is one of the **big four snakes** (deadliest snakes) in India, the others being the Common krait (*Bungarus caeruleus*), the Indian Cobra (*Naja naja*) and the **Saw-scaled viper** (*Echis carinatus*).
- Russell's vipers are responsible for over half of India's snakebite cases.
- **Habitat:** They tend to **avoid dense forests**. They are mostly found in **open, grassy, or bushy** areas, but may also be found in second-growth forests (scrub jungles), on forested plantations, and on farmland.
- **Distribution:** It is found in **India, Sri Lanka, Bangladesh**, Nepal, Myanmar, Thailand, Pakistan, Cambodia, Tibet, China (Guangxi, Guangdong), Taiwan, and Indonesia.

Features of Russell's Viper

- The snake can grow up to 1.5 meters and is identified by its distinctive **reddish-brown spots** outlined in black and white.
- It has a wide, triangular head with small, overlapping scales, large nostrils, and small eyes with vertical pupils.
- It is **mainly nocturnal**, becoming active as the sun fades.
- These snakes are **quite sedentary**, often staying in one place for several days unless disturbed.
- **Conservations Status:** IUCN Red List: Least Concern

Highlights of the Study

- **Phospholipase A2 (PLA2)**, and **Snake Venom Metalloproteinase (SVMPs)** are two main **components of Russell's viper snake venom**.
- These toxins interfere with components of the blood clotting cascade to induce anticoagulant and haemorrhagic effects in humans. While the **varespladib drug inhibits PLA2, the marimastat drug inhibits SVMP**.
- The PLA2 inhibitor varespladib was found to neutralise even the high PLA2 activity of the venom found in Tamil Nadu and Punjab. The varespladib drug effectively inhibited the modest PLA2 activity of the venom from other Indian regions.

Source: TH

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