



## Parabuthus Scorpions of Zimbabwe

There are 20 species of *Parabuthus* in southern Africa, found predominantly in the arid and semi-arid areas. *Parabuthus* species have highly toxic venoms which they use to overpower their prey and drive off adversaries by stinging them. The nippers serve merely to hold their prey whilst it is being stung. The thick tail accommodates powerful muscles which ensure that the sting penetrates deeply into the victims body so that the venom is quickly dispersed. *Parabuthus* species are very aggressive and will sting readily. When disturbed, they raise their abdomens off the ground and curl their tails up tightly, ready to flick the sting forward. These scorpions may also make a hissing noise.

Five species of *Parabuthus* occur in Zimbabwe

***Parabuthus granulatus*** is a brownish scorpion, 75-115 mm long, slender and finely granulated. *P. granulatus* lives in burrow excavations at the base of shrubs and under stones in consolidated sandy soils. It actively forages for prey and is highly aggressive. It is the most venomous scorpion in Southern Africa yet the volume of poison released is about a third of that released by *P. transvaalicus*.



***Parabuthus kuanyamarum***, a yellowish scorpion, is one of the smaller species of *Parabuthus* and has only recently been collected in Zimbabwe. It burrows into the sand dunes of the Kalahari sand system. It has never been found under rocks in sandy areas or in regions of hard gritty soils.



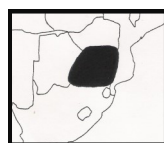
***Parabuthus mossambicensis*** is a reddish brown to orange scorpion, 60-90 mm in length, which constructs a shallow burrow (10-30mm deep) usually under rocks. It has been known to spray its venom.



***Parabuthus raudus*** is also a large, yellowish scorpion, 75-140 mm in length, and has a black end to its tail which is lacking in *P. mossambicensis*. *P. raudus* is only found in the Kalahari sand system where it digs shallow burrows at the base of shrubs. A few specimens have been found in shallow scrapes under rocks and logs, but never under loose bark.



***Parabuthus transvaalicus*** is a black scorpion, 85-150 mm long, and is one of the largest thick tailed scorpions in the world capable of releasing more venom than any other scorpion species. When disturbed it can spray venom from the sting over a distance of about a metre. This species scrape out a shallow retreats under rocks and logs and occur in the southern regions of Zimbabwe.





## ***Parabuthus* stings**

The sting causes immediate excruciating, burning pain. The pain lasts for a variable period from a few hours to one day, maybe longer. However, within an hour systemic symptoms may also occur and hospitalisation is recommended. These symptoms include:

- Raised blood pressure (*P. granulatus*) and pulse rate
- Increased perspiration
- Increased salivation, difficulty in swallowing and speech
- Difficulty in breathing, which is the primary cause of death
- Muscle pain and cramps
- General weakness
- Stiff gait and inability to stand and walk
- Headaches, nausea, vomiting and diarrhea, urine retention
- Restlessness

The spectrum and degree of symptoms is determined by a number of factors, including the species involved, the body mass and physical health of the victim, and the amount of venom injected. Those with lung and heart problems are at greater risk. Deaths, resulting from respiratory and/or heart failure, have occurred in Zimbabwe as a result of stings from *P. transvaalicus* and *P. granulatus*. Anti-venom is available from the South African Institute of Medical Research, Johannesburg, and should only be applied by a medical doctor. Intravenous administration of calcium gluconate is moderately effective for relief of general muscle pain and cramp, but its effect lasts for 20-30 minutes only and there is a limit to the amount that can be administered.

Morphine and derivatives, barbiturates and meperidine, SHOULD NOT BE USED for the treatment of pain. These drugs induce synergistic reactions with scorpion venoms which greatly increase convulsions and the possibility of death.

## **How to Avoid being Stung by a Scorpion**

- Wear protective footwear especially at night
- Exercise caution when lifting rocks, logs and when collecting firewood
- Do not handle scorpions with bare hands
- When camping try not to sleep directly on the ground
- Shake out footwear, clothing and bedding to expel unwanted creepy crawlies
- Learn how to distinguish a highly venomous scorpion from a harmless one and the area in which it occurs