



Reptile Mites

Introduction

The reptile mite (*Ophionyssus natricus*) is a common parasite in reptile collections. Infection with the reptile mite has serious consequences, as the blood sucking nature of the parasite can severely debilitate individual animals. Additionally, the mite can spread diseases, such as *Aeromonas* bacterial infections, and is suspected in the spread of viruses such as Inclusion Body Disease and Ophidian Paramyxovirus.

Diagnosis

Reptile mites are visible to the naked eye, and are initially pale, and darker after a feeding. Mite faeces can be seen as white specks on the animal or within the enclosure. Mites do not like light, so will hide in corners within the enclosure, and also in crevices within the animal's scales and skin. Particularly check around the eyes, legs (in lizards), and mouth. Some people have reported dermatitis secondary to infestation with reptile mites.

Biology

Mites are highly active and can travel several metres. Mites can also transfer on clothing and reptile equipment. Once an egg is laid, the mites go through several development stages and then become adults. Females do not need a male to reproduce; even one female can cause an infestation in a collection. Mites can survive for prolonged periods off the host, especially in cooler temperatures.

Prevention

As with any disease, prevention is better than treatment. Any newly acquired reptiles should be quarantined for a minimum of four months. Quarantine involves complete separation of the reptile from the rest of the collection, and 'barrier nursing'. Barrier nursing means that any equipment used on the new reptile should not be subsequently used on the rest of the collection, and that the new reptile should always be fed, handled and cleaned AFTER the rest of the collection is done. Owners should NEVER go from the new reptile back to the other animals. It is sensible to treat all new reptiles for mites, using one of the recommended treatments below. If mites are suspected, then the enclosure or room should be isolated by a moat of water from the rest of the collection.

Treatment Options

NO CHEMICALS OR PRODUCTS ARE SPECIFICALLY LICENCED FOR USE AGAINST REPTILE MITES IN AUSTRALIA. ANY USE OF PRODUCTS IS AT THE OWNER'S RISK.

Both the animal and the enclosure need to be treated. Treating the animal is easy – even soapy water can kill individual reptile mites on the animal at that point in time. However, a better response will be achieved if insecticides, especially those with a residual action, are used.

- Warm Water Soaks: Add a very small amount of soap to warm water, then soak daily. The soap will cause the mites to drown by removing the layer of air surrounding them.
- Frontline spray: Can be used on both the animal and the enclosure (see below).

- Ivermectin / Moxidectin: Make up solution fresh for each. For moxidectin, use 0.25ml in 1L water. Dispose of solution as solid waste and NOT down the drain (it is toxic to marine life). NEVER use these compounds on turtles.
- Top of Descent: An aerosol preparation of synthetic pyrethrins. An excellent spray for the enclosure, but not for use on animals.
- Freezing for 5 days and microwaving will kill reptile mites, and may be useful for cage furniture or food. **This is NOT to be used on live animals.**
- Vapona, Orange Medic Head Lice treatment and Neguvon are no longer recommended due to both animal and human safety concerns

Treatment for the Animal

Remove the reptile from the enclosure. Place a drop of Artificial tears on the eyes of lizards prior to treatment. Do NOT treat snakes near shedding. Do one of the following:

- Spray the animal with moxidectin solution, ensuring that the animal cannot swallow any solution, and ensure that all crevices are medicated. Leave on animal for 60 minutes, then rinse off in warm water, and place animal into a well-ventilated, warm mite-free enclosure. Repeat fortnightly for 3 treatments.
- Frontline: Weigh the animal, then calculate the amount of frontline spray needed, at 3ml/kg animal. Spray this amount onto a cloth and then wipe over the animal. Repeat no more frequently than monthly.

NEONATES, JUVENILES AND SICK ANIMALS MAY NOT BE ABLE TO WITHSTAND ANY CHEMICALS AT ALL. WARM WATER SOAKS DAILY, COMBINED WITH AGGRESSIVE ENCLOSURE TREATMENT, MAY BE BENEFICIAL IN THESE CASES.

Treatment for the Enclosure

Remove all reptiles and equipment from the enclosure. Discard any porous cage furniture. Clean the enclosure with 3% solution of bleach. Rinse well. Once dry, spray the enclosure with either moxidectin, top of descent or frontline, ensuring that all cracks and crevices are treated. Leave enclosure to dry, and then leave empty for as long as possible (60-80 days is ideal). Repeat treatment before reintroducing animals into the enclosure. Clean non-porous cage furniture similarly, but separate to the enclosure.

