



Portsmouth Reptile & Amphibian Society

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P.R.A.S Care sheet No 4



## **Common Name: Mexican Red Knee Tarantula**

**Scientific Name:** *Brachypelma smithi*

**Care Difficulty:** Easy

**Distribution:** Mexico. (Central Pacific coast).

### **Description:**

The spiderlings lack the characteristic markings of the adults but this starts to develop, although somewhat paler, after several moults, becoming progressively more pronounced. The carapace is black with a wide pinkie-beige border; legs are black, with an orangey "flame" knee. The abdomen is blackish with sparse pinkie-beige hairs. The male is similar in colour to the female.

### **Size:**

Leg span is at about 12.5-15cm (5-6") in females. Males reach at least this size but the general form is less robust than in females.

### **Housing:**

Spiderlings can be housed in cricket tubs and juveniles upwards in tanks that are increased in size as the spider grows. Not being particularly active a tank of 30x20x20cm (12x8 x8") is adequate for an adult.

Conditions: All containers should have a good depth of very slightly moist peat. One side of the spiderling container should be sprayed weekly, or as required, to provide humidity (very slight condensation should remain in this area). When the spiders are large, if a drinking bowl is provided, the peat can be allowed to more or less dry out, with only occasional spraying of one end of the tank. A humidity of 70-75% is adequate. Ventilation should be provided, but as long as the tank is not kept too moist, this is much less important than it is for arboreal species.

In the wild, Mexican red knee tarantulas experience widely varying temperatures throughout the year, the extremes of which are reduced by their burrows/hiding places. In general, however, the winters are cool and the summers hot to very hot. Yet many collectors keep these spiders at a constant temperature throughout the year and also

fail to provide any day/night variation. A temperature of about 24°C (75°F) is often recommended. While this temperature appears to be perfectly satisfactory for a pet spider a nocturnal drop of 2-3°C (3.5-5.5°F) is preferable. A cooling period for these and other *Brachypelma* to temperatures around 16-18°C (60-64°F) for several months during the winter is also advised. Red knees will often go off their food even at normal temperatures for months at a time during the winter, and become inactive. They do not lose weight and in the spring become voracious feeders taking up to six large black crickets at a time. It is believed that this seasonal temperature drop may have an important role in bringing the males into breeding condition, as it is with serpents such as king snakes and Milk snakes (*Lampropeltis*) from similar geographical areas.

*Brachypelma Smithi* does not usually construct a burrow in captivity, so apart from peat - about 4cm (1.5") deep for an adult, you should provide a bark hiding-place. Often the spider will rest on top of this. Adults should have a heavy shallow water bowl so that it cannot be turned over.

### **Diet and Feeding:**

A general diet of black crickets will suffice but they will also take other insects and young mice. The latter greatly enhance growth and should commence with pinkies, as the juveniles become large enough to eat them. Spiderlings, which are very small when they first moult out after leaving the egg sac in this species, should be started on small crickets (about 3mm) and be given 2-3 at a time. They should be fed at least twice weekly but growth will be better if they are fed on demand. As they grow, larger crickets are provided and feeding can be reduced to about twice a week especially once pinkies are being taken. With adults every 5- 7 days is sufficient except at special times such as after moulting or when gravid when extra food is offered. Any uneaten items should be removed. I recommend feeding in the evening and removing uneaten food the next day. All mice are fed dead and care should be taken to completely defrost them prior to feeding.

### **Breeding:**

This is an interesting species as it is not a reliable breeder in captivity and it is not known for certain why this is. There are indications that certain females breed regularly and others not at all. The relative shortage of captive breeding of this species (compared with curly hairs and red rumps - also *Brachypelma* -which are two of the easiest tarantulas to breed) suggests we do not have our conditions just right. The variable temperature regime set out above may be one essential ingredient.

Many females may only be ready to breed every second year, or at least at longer than twelve monthly intervals. The natural time to mate females seems to be in late summer/autumn.

The standard procedure of mating a female in the months following moulting should be followed. The freshly moulted spider when ready to commence feeding is fed liberally and no mating is attempted until she is in very plump condition. Ideally, mating should take place between one to two months after moulting. The male is introduced into the female's tank and contact engineered between them. The male will then start tapping and vibrating. Frequently it is necessary for the female to launch an attack on the male to stimulate him to proceed to closer courtship and actual mating. He is well prepared to

deal with this situation so should not be removed unless, in the unlikely event he is getting the worst of the encounter. A fresh male, which is making sperm webs, should be used to increase the likelihood of an egg sac. Some males will inseminate the female with only one palp (which is perfectly adequate for successful mating) whereas others will make several insertions using both palps. After mating, all males will want to escape rapidly, and in the confines of a glass tank it is the responsibility of the owner to help them out.

The time taken to produce an egg sac after mating is extremely variable, depending on the reproductive state of the female at the time of mating. This is especially the case as many matings will take place outside the second month after moulting. A viable egg sac will be produced from any time between 2 weeks to three months after mating. If the spider is mated in late autumn and "hibernated" the egg sac will not be produced until the spring. At a summer temperature in the mid-20°C (77°F) incubation will last about three months. Baby red knees -which usually number at least several hundred per egg sac - emerge prior to moulting, so are not yet ready to feed and can be left in a group until they moult. After this post-emergence moult they should be housed separately and are ready to start feeding.

**Reference:**

*Tarantulas In Captivity* by Bustard Robert. Airlie Brae Publications, Perthshire.