

A MITE, BREVIPALPUS RUSSULUS (BOISDUVAL) IN FLORIDA

(ACARINA: TENUIPALPIDAE)<sup>1</sup>

H. A. Denmark<sup>2</sup>

Acarus russulus Boisduval, 1867

Tenuipalpus cactorum Oudemans, 1929

Brevipalpus russulus (Boisduval), Oudemans, 1938

**INTRODUCTION:** Boisduval (1867) originally described Brevipalpus russulus from cactus in France. He thought that the mite was probably introduced into Europe from Mexico or neighboring Central American countries. Baker (1949) gave Germany as the type locality and redescribed and figured the female and nymphal stages on material collected on Lobivia rebutioides Backeberg from Peru that was intercepted at Washington, D. C. in 1936. He redescribed the male from material collected on cactus plants from Germany intercepted at Washington, D. C. in 1936.

**DISTRIBUTION:** This mite is known from Argentina, Belgium, Germany, Mexico, Netherlands, Peru, and United States. In the U. S. A. it is known from California and Florida, but probably is more widely distributed as cacti are shipped throughout the world.

**HOSTS:** Cereus sp., Chamaecereus sp., Coryphantha sp., Echinocactus sp., Echinocereus sp., Ferocactus sp., Lobivia sp., L. rebutioides, Mammillaria sp., Pilocereus sp., Schlumbergera sp., and Zygocactus sp.

**ECONOMIC IMPORTANCE:** The mite's feeding destroys the cortex, and the epidermis becomes dry, brown, and leathery in appearance on Zygocactus sp. (fig. 1) and Schlumbergera sp. (fig. 2). This should not be confused with a soft basal rot at the soil line caused by Fusarium oxysporum Schlecht.

**CONTROLS:** The Department of Entomology and Nematology, University of Florida, IFAS, recommends Kelthane 18.5% EC at the rate of 2 teaspoons per gallon (3.78 liters) of water or 2 pints (0.946 liters) per 100 gallons (378.5 liters) of water.

**DESCRIPTION:** Female about 280 $\mu$  long (fig. 3); including the rostrum, 327 $\mu$  long and 173 $\mu$  wide. Rostrum reaching slightly past middle of femur I; palpal segment II without inner basal swelling. Rostral shield with 2 long median lobes and 2 pairs of small lateral lobes. Propodosomal with 3 pairs of marginal setae; hysterosoma with 7 pairs of marginal setae; marginal setae not lanceolate but spinelike, with few serrations. The 3 pairs of dorsal hysterosomal setae are of equal length, appear simple, and are about as long as the marginal setae. The reticulated pattern covers the dorsum on the propodosoma. Coxae I with few transverse striae; coxae II with reticulated pattern on basal outer portion. Tarsus II with a single terminal rod-like sensory seta of medium length. Dorsal setae on femur I and II spinelike, with few serrations, about half as long as wide.

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MALE: Body  $227\mu$  long, including the rostrum  $267\mu$  long, and  $127\mu$  wide (fig. 4).  
Nymph (fig. 5)

LITERATURE CITED:

Baker, E. W. 1949. The genus Brevipalpus (Acarina: Pseudoleptidae). American Midl. Nat. 42(2):350-402.

Boisduval, A. 1867. Essai sur l'entomologie horticole. Librairie d'horticulture de E. Donnaud, Paris, 648p.

Oudemans, A. C. 1929. Acarologische Aanteekeningen 95. Ent. Ber. 7:393-399.

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Fig. 1. Brevipalpus russulus (Boisduval) damage to Zygocactus sp., Thanksgiving cactus.



Fig. 2. Brevipalpus russulus (Bois.) on Schlumbergera sp., Easter cactus.

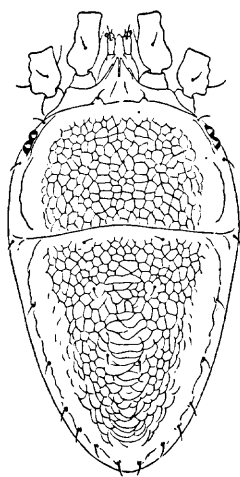


Fig. 3. Brevipalpus russulus female (after E. W. Baker).

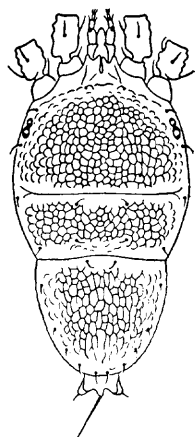


Fig. 4. Brevipalpus russulus male (after E. W. Baker).

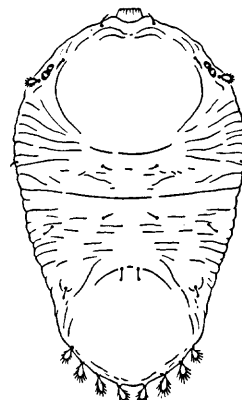


Fig. 5. Brevipalpus russulus nymph (after E. W. Baker).