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BROAD MITE, POLYPHAGOTARSONEMUS LATUS (BANKS) (ACARINA: TARSONEMIDAE) ON PITTOSPORUM[1]

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INTRODUCTION: The broad mite was described by Banks (1904) as Tarsonemus latus from the terminal buds of mango in a greenhouse in Washington, D. C. Moznette (1925) reported that Mr. Edward Simmonds first observed damage to mango plants at the Introduction Gardens at Miami, Florida.

HOST: The broad mite has an extensive host range. Some of the hosts are: Aphelandra sp., Arthrostema ciliatum Ruiz & Pavon, Capsicum frutescens L., Capsicum sp., Carica papaya L., Cissus discolor Blume, Cissus rotundifolia Vahl, Cissus sp., Citrus limon Burman, Citrus medica L., Citrus sp., Cornus florida L., Codiaeum variegatum Blume, Corchorus capsularis L., Dahlia sp., Episcia cupreata Hanstein, Fatsia japonica (Thunberg) Decaisne & Planchon, Gerbera sp., Gossypium sp., Hedera helix L., Hedera sp., Hoya carnosa R. Brown, Impatiens sp., Ligustrum lucidum Aiton, Lycopersicon esculentum Miller, Lycopersicon sp., Mangifera indica L., Nicotiana sp., Oxalis hedysaroides Humboldt, Bonplan & Kunth, Pelargonium sp., Peperomia sp., Piper sp., Pittosporum tobira (Thunberg) Aiton, Pittosporum sp., Phaseolus aureus Roxburgh, Phaseolus vulgaris L., Plectranthus australis R. Brown, Prunus persica Batsch, Psidium guajava L., Saintpaulia sp., Schefflera arboricola Hoyata, Sinningia sp., Tagetes sp., Vigna unguiculata (L.) Walpers, and Zinnia sp.

DISTRIBUTION: This mite has a wide distribution. It is known to occur in Australia, Asia, Africa, North America, South America, and the Pacific Islands.

Fig. 1. Broad mite, Polyphagotarsonemus latus (Banks) damage to pittosporum. (DPI 701401)

ECONOMIC IMPORTANCE: This is a destructive plant feeder causing terminal leaves and flower buds to become malformed. The blooms abort, and the plant growth is stunted (fig. 1).

SURVEY AND DETECTION: Look for malformed terminal buds and stunted growth on any of the suspect hosts. The mites are very small and difficult to see without a hand lens.

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DESCRIPTION: Male: Body short (168μ), oval, broadest at mid-length (97μ). Legs long, spindly; apodemes distinct and well defined; propodosoma with 4 pairs of dorsal setae. Capitulum, including palpi, 32μ long and 34μ wide (fig. 2). Leg IV 1-1/2 times as long as coxa; coxa rectangular, as broad as long, 2/3 as long as femur III, and with 1 stout seta (fig. 3). Genital papilla 24μ long and 28μ wide, subcircular with posterior margin truncate. Anal plate large and well defined, triadiate apodemes with expanse equal to 2/3 greatest width of genital papilla.

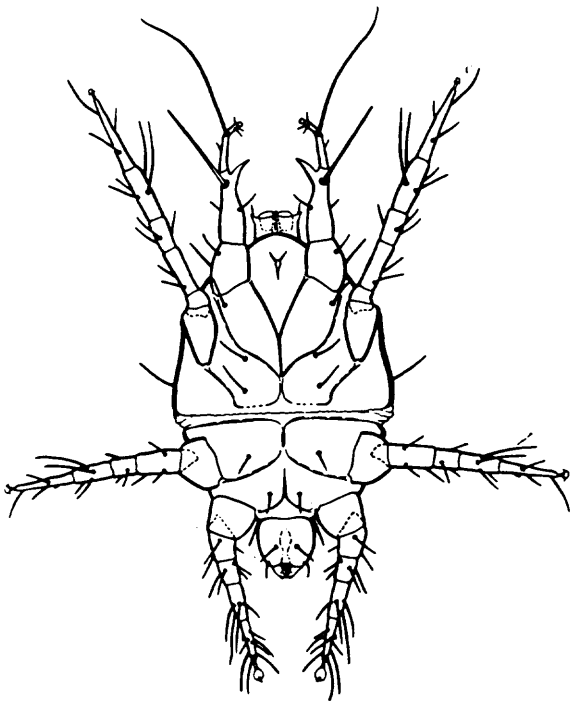

Fig. 2. Male broad mite, Polyphagotarsonemus latus (Banks)(After Beer).

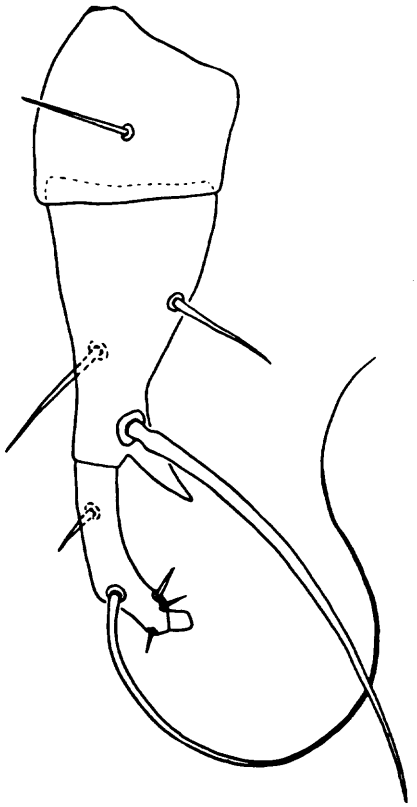

Fig. 3. Leg IV of male broad mite, Polyphagotarsonemus latus (Banks).

LITERATURE CITED:

Banks, N. 1904. Class III, Arachnida, Order 1, Acarina, four new species of injurious mites. J. New York Ent. Soc. 12(1):53-56, pl. II, fig. 1-4.

Moznette, G. F. 1925. A pest in the mango nursery. Florida State Plant Board Quarterly Bull. 9(3):121-22.