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**Two New Species of *Eotetranychus* from Shikoku, with  
Notes on *E. kankitus* Ehara  
(Acarina: Tetranychidae)<sup>1)</sup>**

By

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(With 29 Text-figures)

The materials on which the present paper is based were collected in Shikoku by the writer in summer of 1965. Two species of the genus *Eotetranychus* Oudemans are here described as new. Of *E. kankitus* Ehara, new to Shikoku, supplementary description is also given in this paper. Types of the new species are deposited in the Zoological Institute, Faculty of Science, Hokkaido University.

***Eotetranychus shii* n. sp.**

(Jap. Name: Shiinoki-hadani)

(Figs. 1-14)

*Female.* Body broad, dorsoventrally depressed, 390 $\mu$  long, including rostrum 480 $\mu$  long, and 280 $\mu$  wide; pale greenish yellow in color, with dark spots along each side. Rostrum reaching distal end of femur I. Terminal sensillum of palpus well developed, about twice as long as broad; dorsal sensillum broad. Tarsus I with three tactile setae proximal to proximal set of duplex setae, one sensory seta near duplex setae; tibia I with eight tactile and one sensory setae. Tarsus II with one sensory seta proximal to duplex setae; tibia II with six tactile setae. Tarsi III and IV each with seven tactile and one sensory setae; tibia III with five tactile setae; tibia IV with six tactile setae. Peritreme with distal portion hooked, variable. Dorsal setae of idiosoma slender, tapering, pubescent, shorter than distances between their bases; inner sacral setae about as long as postanal setae, longer than outer sacral setae. Dorsal striation of idiosoma as figured. Medioventral opisthosomal setae normal in thickness. Genital flap with transverse striae; area just anterior to flap with variable, usually oblique striae.

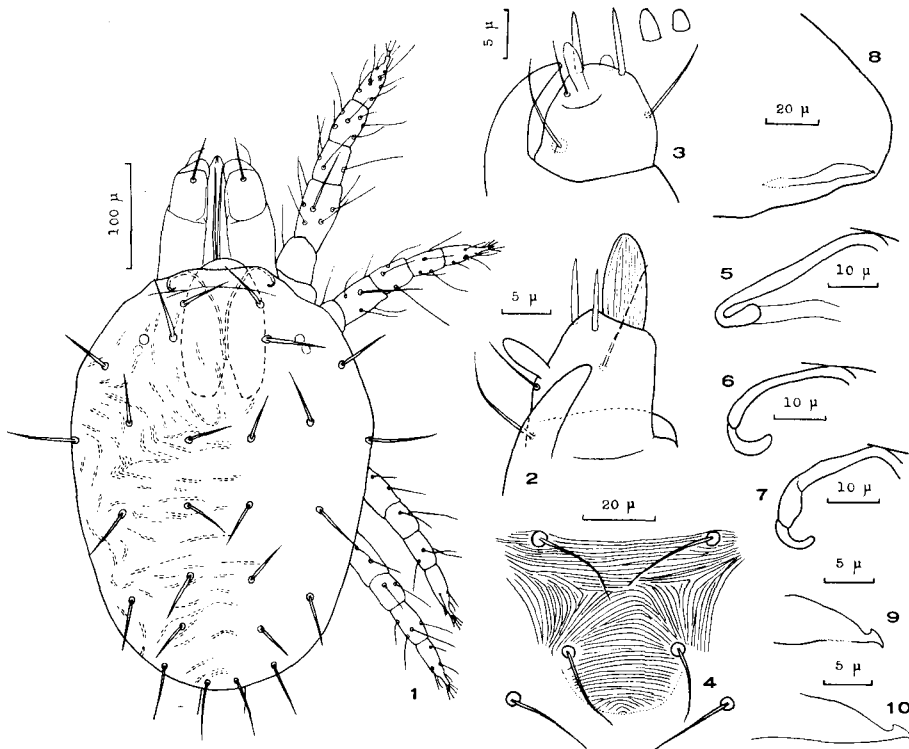
*Male.* Body 280 $\mu$  long, including rostrum 360 $\mu$  long, and 210 $\mu$  wide. Terminal sensillum of palpus variable in shape and size: longer than, or as long as broad.

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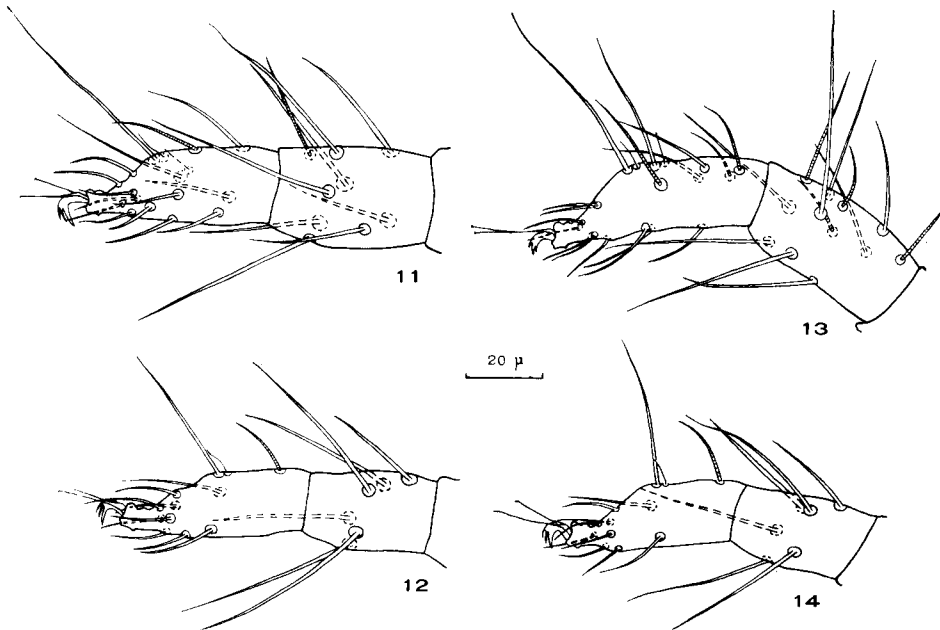
Tarsus I with three tactile and two sensory setae proximal to duplex setae, one sensory seta near duplex setae; tibia I with eight tactile and four sensory setae. Tarsus II with one sensory seta proximal to duplex setae; tibia II with six tactile setae. Tarsi III and IV each with seven tactile and one sensory setae; tibia III with five tactile setae; tibia IV with six tactile setae. Dorsal setae of idiosoma mostly shorter than distances between bases. Aedeagus with shaft gradually narrowing, the ventral margin nearly straight; hook tiny, with a weak dorsal angulation, the termination caudoventrally directed.



Figs. 1-10. *Eotetranychus shii* n. sp. 1, dorsum of female. 2, distal segment of palpus of female. 3, distal segment of palpus of male, and showing variation of terminal sensillum. 4, genital and pregenital area of female. 5, 6, 7, peritreme. 8, 9, 10, aedeagus.

*Types.* Holotype: ♀, Matsuyama, Ehime Pref., 1-VIII-1965 (S. Ehara leg.), on *Shiia Sieboldii* Makino. Allotype: ♂, data same as for holotype. Paratypes: 11 ♀♀ & 4 ♂♂, data same as for holotype; 6 ♀♀ & 2 ♂♂, 3-VIII-1965, other data same as for holotype; 9 ♀♀ & 4 ♂♂, Takamatsu, Kagawa Pref., 31-VII-1965 (S. Ehara leg.), on *Shiia Sieboldii* Makino.

*Remarks.* *Eotetranychus shii* n. sp. resembles *E. citus* Pritchard and Baker, 1955( U.S.A.), in having tibia II with six tactile setae, but is distinct in the shape of the aedeagus, and in having shorter dorsal setae than distances between their bases.



Figs. 11-14. *Eotetranychus shii* n. sp. 11, tarsus and tibia I of female. 12, tarsus and tibia II of female. 13, tarsus and tibia I of male. 14, tarsus and tibia II of male.

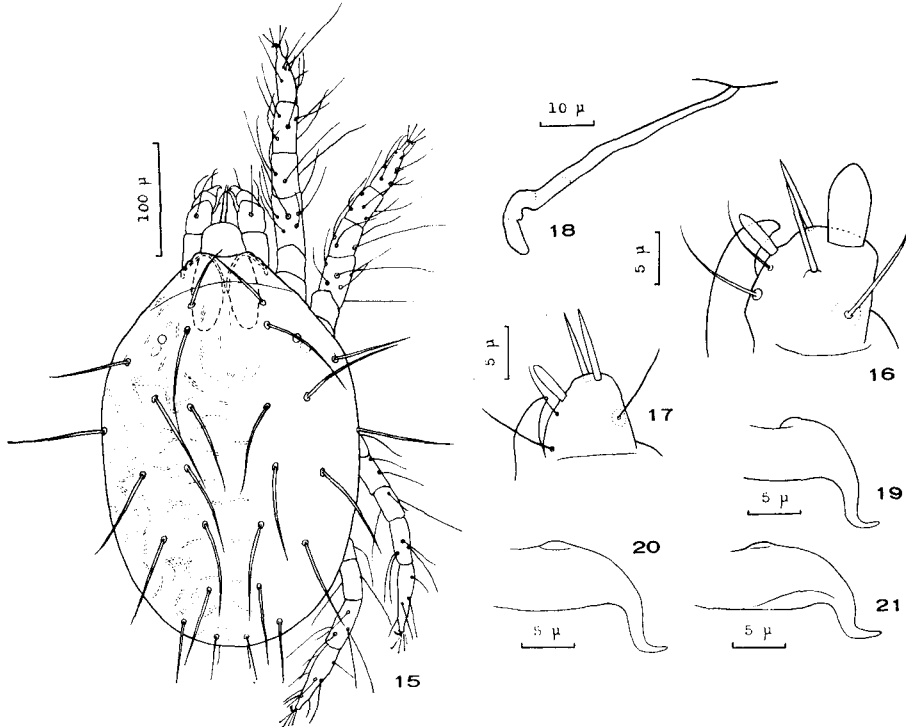
***Eotetranychus celtis* n. sp.**

(Jap. Name: Enoki-hadani)

(Figs. 15-25)

*Female.* Body  $320\mu$  long, including rostrum  $400\mu$  long, and  $220\mu$  wide; pale greenish yellow in color, with two dark spots along each side. Rostrum reaching approximately to distal end of femur I. Terminal sensillum of palpus about twice as long as broad; dorsal sensillum slender. Tarsus I with five tactile and one sensory setae proximal to duplex setae; tibia I with nine tactile and one sensory setae. Tarsus II with three tactile and one sensory setae proximal to duplex setae, one tactile seta near duplex setae; tibia II with eight tactile setae. Tarsi III and IV each with ten tactile and one sensory setae; tibia III with six tactile setae; tibia IV with seven tactile setae. Peritreme hooked distally. Dorsal setae of

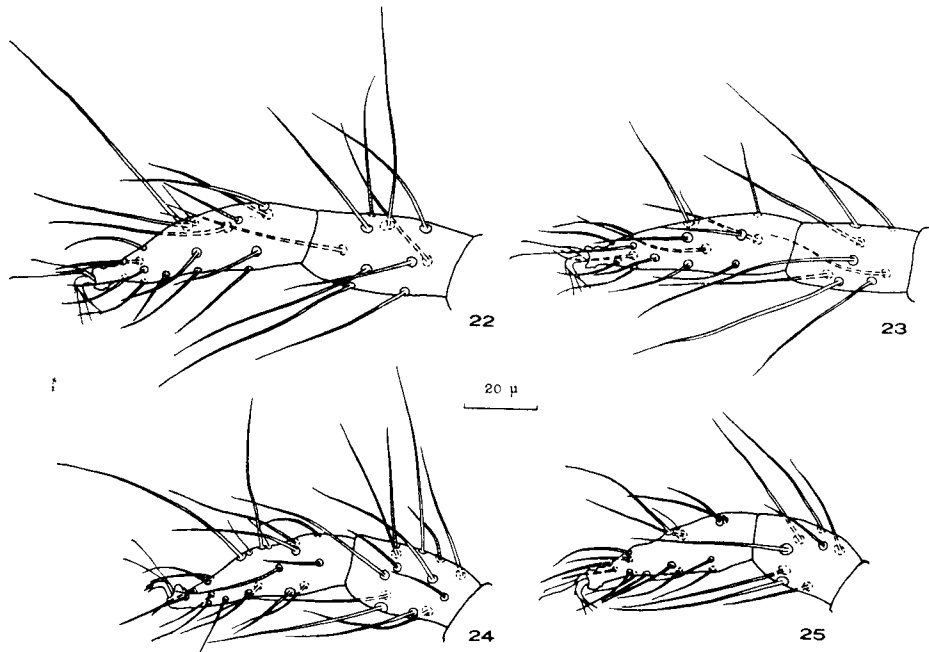
idiosoma slender, tapering, pubescent, longer than distances between their bases; inner sacral setae longer than outer sacral setae, the latter longer than postanal setae. Dorsal striation of idiosoma as figured. Medioventral opisthosomal setae normal in thickness. Genital flap with transverse striae; area immediately anterior to flap with variable, usually oblique striae.



Figs. 15-21. *Eotetranychus cellis* n. sp. 15, dorsum of female. 16, distal segment of palpus of female. 17, distal segment of palpus of male. 18, peritreme. 19, 20, 21, aedeagus.

*Male.* Body  $230\mu$  long, including rostrum  $290\mu$  long, and  $150\mu$  wide. Palpus with terminal sensillum absent; dorsal sensillum slender. Tarsus I with four tactile and three sensory setae proximal to duplex setae; tibia I with nine tactile and four sensory setae. Tarsus II with three tactile and one sensory setae proximal to duplex setae, one tactile seta close to duplex setae; tibia II with eight tactile setae. Tarsi III and IV each with ten tactile and one sensory setae; tibia III with six tactile setae; tibia IV with seven tactile setae. Dorsal setae of idiosoma longer than intervals between bases. Aedeagus abruptly narrowing to the middle, nearly perpendicularly bent ventrad there; the bent distal part tapering posteriorly, it nearly perpendicularly bent caudad near its middle.

*Types.* Holotype: ♀, Kôchi, Kôchi Pref., 6-VIII-1965 (S. Ehara leg.), on *Celtis sinensis* Persoon var. *japonica* Nakai. Allotype: ♂, data same as for holotype. Paratypes: 12 ♀♀ & 3 ♂♂, data same as for holotype; 9 ♀♀ & 2 ♂♂, Matsuyama, Ehime Pref., 1-VIII-1965 (S. Ehara leg.), on *Celtis sinensis* Persoon var. *japonica* Nakai.



Figs. 22-25. *Eotetranychus celtis* n. sp. 22, tarsus and tibia I of female. 23, tarsus and tibia II of female. 24, tarsus and tibia I of male. 25, tarsus and tibia II of male.

In addition to the types, specimens from Honshu were examined: 6 ♀♀ & 2 ♂♂, Setagaya, Tokyo, VIII-1961 (S. Ehara leg.), on *Celtis sinensis* Persoon var. *japonica* Nakai.

*Remarks.* The aedeagus of *Eotetranychus celtis* n. sp. is similar to those of *E. deflexus* (McGregor, 1950) (Oregon and California), *E. cybebus* Baker and Pritchard, 1960 (Belgian Congo), and *E. fraxini*<sup>1)</sup> Reck, 1948 (Georgian S.S.R. and Armenian S.S.R.). But, it is twice bent nearly perpendicularly with the shaft abruptly narrowing backward. Further, the new species is distinctive in lacking the terminal sensillum on the male palpus. In addition, *E. fraxini* is also different from this

1) According to Reck (1959). The illustrations of the aedeagus of *E. fraxini* that were presented in Reck's earlier papers (1948a, 1948b) differ from his latest figure (1959), indicating that *fraxini* is near *E. tiliarium* (Hermann).

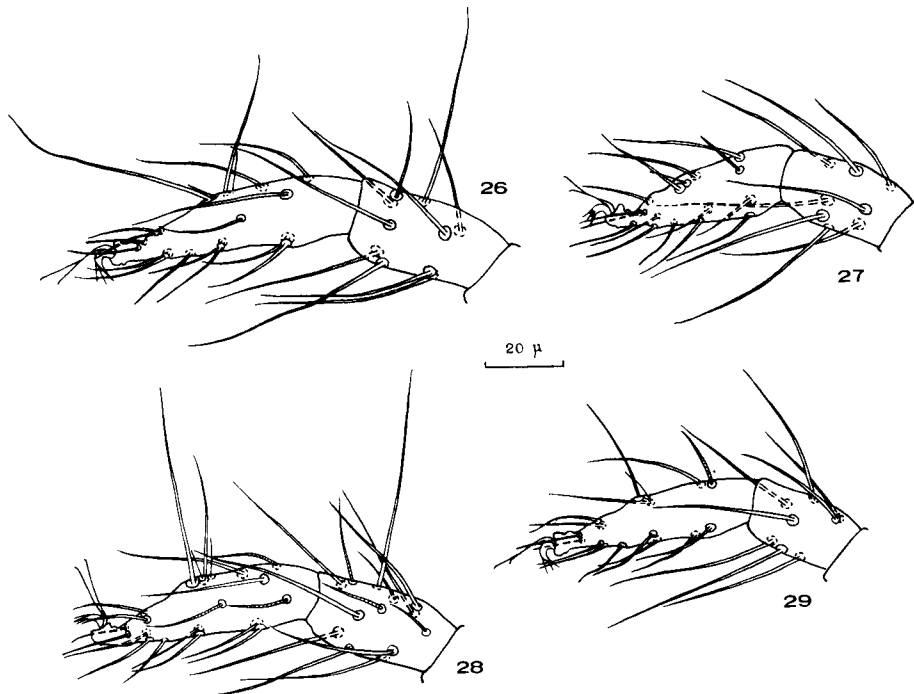
species in the setal pattern of the legs.

***Eotetranychus kankitus* Ehara**

(Figs. 26-29)

*Eotetranychus kankitus* Ehara, 1955, p. 178, Figs. 1-8.

The chaetotaxy of legs is as follows. *Female*: tarsus I, five tactile setae proximal to duplex setae, one sensory seta near proximal set of duplex setae; tibia I, nine tactile and one sensory setae; tarsus II, three tactile and one sensory setae proximal to duplex setae, one tactile seta near duplex setae; tibia II, eight tactile setae; tarsi III and IV each, ten tactile and one sensory setae; tibia III, six tactile setae; tibia IV, seven tactile setae; *male*: tarsus I, four tactile and two sensory setae proximal to duplex setae, one sensory seta near duplexes; tibia I, nine tactile and four sensory setae; tarsus II, three tactile and one sensory setae proximal to duplex setae, one tactile seta close to duplex setae; tibia II, eight tactile setae; tarsi III and IV each, ten tactile and one sensory setae; tibia III, six tactile setae; tibia IV, seven tactile setae. Empodium I of male with middle pair of hairs stout, the dorsal and ventral pairs of hairs very weak. Genital flap of female with



Figs. 26-29. *Eotetranychus kankitus* Ehara. 26, tarsus and tibia I of female. 27, tarsus and tibia II of female. 28, tarsus and tibia I of male. 29, tarsus and tibia II of male.

longitudinal striae on anterior part, with transverse striae on posterior part; area just anterior to flap with longitudinal striae.

*E. kankitus* was described based on specimens from citrus in the Island of Ōsaki-shimajima, Inland Sea (Ehara, 1955), and was later recorded from Honshu (Sadai, 1961) and also from Assam, India (Manson, 1963). This mite is new to Shikoku.

*Specimens examined.* Many females and males, Yoshida, Ehime Pref., 2-VIII-1965 (S. Ehara leg.), on citrus.

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### References

- Baker, E.W., and A. E. Pritchard 1960. The tetranychoid mites of Africa. *Hilgardia* **29**: 455-574.
- Ehara, S. 1955. On two spider mites parasitic on Japanese citrus. *Annot. Zool. Japon.* **28**: 178-182.
- McGregor, E.A. 1950. Mites of the family Tetranychidae. *Amer. Midl. Nat.* **44**: 257-420.
- Manson, D.C.M. 1963. Mites of the families Tetranychidae and Tenuipalpidae associated with citrus in South East Asia. *Acarologia* **5**: 351-364.
- Pritchard, A.E., and E.W. Baker 1955. A revision of the spider mite family Tetranychidae. *Pacif. Coast Ent. Soc. Mem. Ser.* **2**: 1-472.
- Reck, H.F. 1948a. Rod *Schizotetranychus* (Tetranychidae, Acari) po materialam iz Gruzii. *Soobsh. Akad. Nauk Gruz. S.S.R.* **9**: 369-376.
- 1948b. Opisanie vidov roda *Schizotetranychus* (Träg.) iz Gruzii. *Ibid.* **9**: 445-452.
- 1959. Opredelitel tetranikovikh kleshchei. *Fauna Trans-Caucasia-Akad. Nauk Gruz. S.S.R.* 152 pp.
- Sadai, K. 1961. [Biology of *Eotetranychus kankitus* Ehara injurious to citrus.] *Chûgoku Nôgyô Kenkyû* **21**: 75-80 (in Japanese).