On the Identity of *Tyrophagus putrescentiae* (Schrank) and *T. dimidiatus* (Hermann) (Acarina, Acaridae) in Japan¹⁾

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There were some confusions over the taxonomic status of the two cosmopolitan species of *Tyrophagus* (Acarina; Fam. Acaridae) in some parts of the world (Oudemans 1906, Zakhvatkin 1941, Türk and Türk 1957, Robertson 1959, 1961, Sasa 1965). In Japan, the name *T. dimidiatus* (Hermann, 1804) has been generally applied to the common mite pest of stored food ever since Asanuma (1949, 1950) published his papers on stored product mites (Miura and Sasa 1961, Matsumoto 1962, Sasa 1964). Nevertheless, Asanuma (1950), had some reservation over the identity of this species when he stated "The author wishes to adopt with some hesitation the scientific name for this common species". Sasa (1964) summed up the situation by stating that the species most commonly found in Japan in the widest range of food materials was "conventionally identified" as *T. dimidiatus* by the Japanese acarologists. The Japanese common name of this species is "*Kenagakonadani*". It is generally found on rice, wheat, and barley seeds in stores, urban and rural granaries (Sinha 1967), cereals, flour, powdered milk, cheese, dried fish, drugs, chocolate, cookies, rice straw mat, and in various other foodstuffs consumed by the Japanese (Sasa 1964, Matsumoto 1962). Only in one Japanese report (Oshima 1964), however, this species was referred to as *T. putrescentiae*

(Schrank, 1781).

To resolve the question of mistaken identity of this species the present authors met at the University of Tokyo in December 1966, examined specimens in their collections using the most recent key for the genus *Tyrophagus* (Hughes 1961), and agreed unanimously that *T. putrescentiae* was the correct name for the commonest and the most important species of the stored-product mite in Japan. As far as we could ascertain *T. dimidiatus* (= *T. oudemansi* Robertson, 1959) has not been reported from Japan although it occurs on plants, such as spinach, salsify, mullein, lily, poppy, petunia, rye, barley in Europe, U. K., U. S. A., and Australia.

These two valid species can be distinguished as follows (modified from Hughes 1961):

- 1 Supracoxal seta (pseudostigmatic hair) curved, tapering evenly from base to tip, pectinate along its whole length; in dorso-ventral view of male, arms of penis support turned inwards; dorsal setae d_2 short and almost equal in length with d_1 and l_a , always less than half the length of chelicerae; appendages usually well-tanned.....*T. dimidiatus*
- Supracoxal seta (pseudostigmatic hairs) usually straight with long pectinations only about its enlarged base; in dorsoventral view of male arms of penis turned outwards; dorsal setae d_2 2 to 3.5 times as long as d_1 ; appendages never well-tanned.....*T. putrescentiae*

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摘 要

日本産の重要な食品害虫の一つであるケナガコナダニにたいして、わが国では浅沼 (1949, 1950) 以来 *Tyrophagus dimidiatus* (Hermann, 1804) が採用されてきた。この問題につき疑問をもったわれわれは種々検討した結果、Hughes (1961) の *Tyrophagus* 属のもつとも新しい分類にしたが、ケナガコナダニの学名には *Tyrophagus putrescentiae* (Schrank, 1781) が適当であるということに意見が一致した。また野外種とされている *T. dimidiatus* はいまだ日本では報告されていないことが確認された。

なおこれら両種は次の特徴によつて区別される。

基節上毛 (PO) は曲がり、基部から先端に次第に細まる、分枝はその長さ全体におよぶ。雄を背腹から見ると、陰茎支持器の腕は内側に曲がる。背剛毛 d_2 は短く、ほとんど d_1 と la の長さに等しく、常に缺角の長さの半分より短い。付属肢は一般の茶褐色を呈す。

.....*T. dimidiatus*

基節上毛は一般に真直で、長い分枝はその膨大した基部のまわりのみから生ずる。雄を背腹から見ると、陰茎支持器の腕は外側に曲がる。背剛毛 d_2 は d_1 の長さの 2 ないし 3.5 倍の付属肢はさほど茶褐色しない。

.....*T. putrescentiae*

ショウドウツバメのマダニ

Ixodes lividus (C. L. Koch 1844):

A bird tick new to Japan

Ixodes lividus (C. L. Koch 1844) (日本未記録)

Don. R. Arthur, 1963, British Ticks, p. 82-92, f. 91-116.

調査標本: 25 ♂ 20 ♀ 1 nymph (with *Ceratophyllus riparius riparius* 2 ♀), 1962 年秋の道路改修工事のため崖がけずられむきだしになつて冬を越したショウドウツバメ *Riparia riparia ijimai* の巣材約 15 から、1963-III-30, 網走市郊外藻琴湖畔国道 244 号線ぞいの崖、大野採 (網走の当日の平均気温 -0.7°C ; オホーツク海は一面に氷におおわれ、土は固く凍結して巣を発掘することはできなかった)。

2 ♀ (with *Ceratophyllus riparius riparius* 1 ♂ 1 ♀, *Ceratophyllus gallinae dilatus* 8 ♂ 9 ♀), 発掘したショウドウツバメの巣材 3 から、上と同じ場所、1966-VIII-4, 大野採 (ショウドウツバメの巣穴はスズメによつて屢々利用されることが観察された)。

標本の 1 部は Dr. Don. R. Arthur によつて *I. lividus* であることが確認された。筆者はこれまでに上記藻琴湖畔のほか、網走支庁女満別町、同小清水町、釧路支庁白糠町でもショウドウツバメの巣を調べているが、これらの地域ではまだマダニは発見されていない。本種はショウドウツバメを宿主としイギリス、フランス、ドイツ、ソ聯 (カザック) に知られる。

Dr. Don. R. Arthur 並びに文献について援助を頂いた北大山下次郎教授に深謝の意を表する。

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