Research Note

New locality records of five mosquito species in Japan

Motoyoshi MOGI*, Ichiro MIYAGI**
and Hiroshi SUZUKI***

*Division of Parasitology, Department of
Microbiology, Saga Medical School,
Saga 840-01, Japan

**Laboratory of Medical Zoology, College of
Health Sciences, University of the Ryukyus,
Naha 902, Japan

***Department of Virology, Institute for
Tropical Medicine, Nagasaki University,
Nagasaki 852, Japan

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The present knowledge on the Japanese fauna of mosquitoes was compiled in Tanaka *et al.* (1979). This work, however, is not the end of researches but a start of a new research age. This note presents new locality records of five mosquito species in Japan. They make new northern or southern limits of respective species.

Aedes kobayashii Nakata, 1956

Records. 5♂♂, 6♀♀, Kobaru at the foot of Mt. Sobo, Oita Pref. (alt. 500 m, 32°52'N, 131°21'E), 26 VII 1969, reared from larvae in a tree hole, I. Miyagi.

Notes. New to Kyushu and the southernmost locality. This eastern Palaearctic species had been known from Korea and north Japan (Hokkaido, Honshu), the southernmost record being from Mt. Kurama, Kyoto Prefecture (35°07'N, 135°46'E). This is very rare in Japan and considered a mountain species in Kyushu.

* 茂木幹義: 佐賀医科大学微生物学教室 (〒840-01 佐賀市鍋島三本杉)

** 宮城一郎: 琉球大学保健学部医動物学教室 (〒902 那覇市与儀 585)

*** 鈴木 博: 長崎大学熱帯医学研究所ウイルス学部 門 (〒852 長崎市坂本町 12-4)

Aedes oreophilus (Edwards, 1916)

Records. 4♀♀, 16 VII 1978, biting collection; 12♀♀, 23 VII 1978, biting collection; 5 larvae, 23 VII 1978, tree hole; Azami-dani, Mt. Unzen, Nagasaki Pref. (alt. 1,100 m, 32°45'N, 130°17'E), M. Mogi.

Notes. New to Kyushu and the southernmost locality except far isolated distributions in mountain regions of India. In northeast Asia, it had been known from Korea and north Japan (Hokkaido, Honshu), the southernmost record being from Odaigahara, Nara Prefecture (32°10'N, 136°05'E). Unzen is an isolated mountain of volcanic origin with a natural forest of deciduous broad-leaved trees above 1,000 m. As evidenced by pollen analyses (*e.g.*, Tsukada, 1974), this type of forests was predominant in the lowland of Kyushu during the last glaciation. Apparently, the population of *oreophilus* in the high elevation of Unzen is a climatic relic produced following rising temperatures in the post-glaciation as well as its habitat of deciduous broad-leaved tree forests.

Aedes watasei Yamada, 1921

Records. 2♀♀, biting collection; 1 larva 1 pupa, stone basin; Kagami-yama, Iki Island (alt. 70 m, 33°42'N, 129°43'E), 13 VII 1976, M. Mogi.

Notes. The northernmost record. This is common in the Ryukyus, but very rare in Kyushu. Except Yakushima Island which is between Kyushu proper and the Ryukyus, it was recorded only twice, from Omura (type locality) and Hirado Island, both in Nagasaki Prefecture. This is an Oriental element and an inhabitant of the natural forest of evergreen broad-leaved trees.

Aedes galloisi Yamada, 1921

Records. 1♂, 5♀♀, Mt. Sobo, Oita Pref. (alt. 1,300 m, 32°50'N, 131°20'E), 6 VIII 1978, biting collection, M. Mogi.

Remarks. New to Kyushu and the south-

ernmost record. This northern Palaearctic species had been known from Japan (Hokkaido, Honshu), Korea, northeast China, southeast Siberia, Sakhalin and a part of west Siberia (Tanaka *et al.*, 1979). The typical habitat of this species is a forest of deciduous broad-leaved trees which is found in Kyushu only in the mountain region. Surely, this is an additional example of a climatic relic in Kyushu.

Topomyia yanbarensis Miyagi, 1976

Records. 5♂♂, 5♀♀, with associated pupal and larval skins, Amami-Oshima Island, the Ryukyus, 17 VII 1979, stump of newly cut bamboo, I. Miyagi. 1♀ with associated larval and pupal skins, Iwaya-san, Nagasaki City (alt. 200 m, 32°47'N, 129°50'E), 6 XI 1978, bamboo internode, M. Mogi. 1♂, 1♀, with associated larval and pupal skins, the hillside west of Nameshi-toge, Nagasaki City (alt. 200 m, 32°48'N, 129°49'E), 10 V 1979, bamboo internode, H. Suzuki and M. Mogi. 2 larvae, Nakayama, the southernmost part of Hirado Island (alt. 10 m, 33°12'N, 129°22'E), 2 XI 1980, bamboo internode, H. Suzuki.

Notes. New to Amami-Oshima and Kyushu, the latter being the northernmost distri-

bution. This species is a typical Oriental element. Makiya *et al.* (1976) collected from a bamboo stump in Kagoshima City, the southernmost part of Kyushu, a single larva being similar to *yanbarensis*, but they did not give the valid identification due to the lack of adult specimens. Therefore, the present record is the first confirmed distribution of the species and the genus *Topomyia* in the Palaearctic region. It breeds exclusively in water accumulated in internodes of living bamboos (Miyagi, 1976). After the first collection from naturally made habitats, we (M.M. and H.S.) recovered many eggs, larvae and pupae from drilled bamboos and the ecology of this species is now under study in the field. It may be worth noting that larvae of *Tripteroides bambusa bambusa* are often encountered in water collections in internodes of living bamboos. This appears a newly known habitat of this species.

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摘 要

蚊 5 種の分布記録

Aedes kobayashii と *Ae. galloisi* を祖母, *Ae. oreophilus* を雲仙, *Ae. watasei* を壱岐, *Topomyia yanbarensis* を奄美大島, 長崎, 平戸で採集した。*Ae. watasei* 以外は九州本土での初記録である。前二者は現在知られている最南の記録となり, *Ae. oreophilus* も, 東アジアでの新南限となるが, インド山地にも不連続分布する。これらの種は, 寒冷期には九州にも広く分布していたが温暖化に伴い山地に遺存分布

Fig. 1 Main localities mentioned

するようになったのであろう。逆に、後二者は、いずれも最北の記録となる。なお、*To. yanbarensis* と同時に、*Tripteroides bambusa bambusa* も長崎の生

竹の節内にたまった水から発見された。これは、この種の、これまで知られていなかった発生場所と思われる。