## THREE INTERESTING SYMPETRUM SPECIES FROM THE SAKISHIMA ISLANDS, THE RYUKYUS, JAPAN (ANISOPTERA: LIBELLULIDAE)

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Abstract -S. cordulegaster Sel., S. depressiusculum Sel. and S. fonscolombei (Sel.), all of continental Asiatic origin, are recorded from the Islands. The latter sp. is new to the Japanese fauna.

## Observations

Sympetrum cordulegaster Selys.

Kannabaru-koya, Iriomote Island, Oct.

20, 1977. 1 of T. Kohama leg., S. Asahina det.

The almost mature male was perching on a dry riverbed of the Urauchi River. Abdomen length 24 mm, hind wing length 27.2 mm. Sympetrum depressiusculum Selvs.

Funaura, Iriomote Island, Oct. 8, 1977. 2 dd, 2 99 S. Azuma leg., 1 d M. Kinjo leg., 1 9 M. Taniguchi leg.; Kubura, Yonagoni

Island, Oct. 9, 1977. 1 of Y. Hirahara leg. Three males and three females were captured on a grassy field between a bush and an orchard near Funaura, in the northwestern part of Iriomote Island. S. Azuma told me that three specimens were attracted by the light at night. Length of abdomen measures between 21.9 and 23.9 mm in the males, and between 23.9 and 26.5 mm in the females. Length of hind wing ranges from 25.7 to 28.0 mm in males, and from 25.5 to 29.6 mm in females.

Sympetrum fonscolombei (Selys).

Maebama, Miyako Island, Oct. 16, 1977. 1 d T. Kohama leg., S. Asahina det.

A single mature male with red abdomen was found perching on a tree at a small pond formed by gravel diggings near the west coast of Miyako Island. Abdomen length was 27 mm, hind wing length 28 mm.

The specimens are preserved in Fujukan, Museum of Ryukyu University, and partly in my own collection.

## Discussion

Twenty Sympetrum taxa have been found in the Palaearctic Region of Japan. From the Sakishima Island (24°10'N-24°20'N), the southernmost part of the Ryukyus, which belong to the subtropical Oriental Region, no autochthonous Sympetrum species is known except for a single male of S. depressiusculum, which has been recorded as an extremely puzzling occurrence (ASAHINA, 1964). Therefore, the three records presented here seem of considerable interest.

S. fonscolombei has been recorded over a very wide area extending from the Mediterranean coast, whole Africa, Middle Asia, to Kashmir, India and as far east as Liaotung Peninsula of North China, and has been found migrating to Central Europe. Since it has never been found from southeast China or from Japan, this may be the most eastern record for this species. WATANABE's (1977) brief report of S. striolatum imitoides Bart. from Miyako Island is a misidentification of the present case.

S. cordulegaster has been known from Amur, Ussuri, Manchuria and Korea. In our country the species was first found in Yamagata in 1952, then in Niigata in 1957 (ASA-HINA, 1958), in Kyoto and Hyogo (KINU-GASA, 1971) and in Shimane (MIYAZA-KI, 1972), but it is uncertain if it is autochthonous. These localities are all confined to the northwestern coast of Honshu, facing continental Asia. Hence, this record from the southwesternmost part of Japan seems to be well worth notice.

S. depressiusculum has a wide range from North Europe to Siberia, Mongolia, Ussuri, Manchuria and Korea. Within the Japanese faunal limits it was captured rather incidentally from Hokkaido (ASAHINA, 1958), Yamagata, Niigata, Nagano, Kyoto, Tottori (OMORI, 1969), Hyogo (AISAKA, 1976), Kagawa (OHSAWA, 1977), Shimane (NAKAUCHI, 1965), Tsushima (HIURA, 1976) and Iriomote Island (ASAHINA, 1964). Now this is the first record from Yonaguni Island, and the second from Iriomote Island.

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References – AISAKA, K., 1976, Tombo 19: 20; – ASAHINA, S., 1958, Shin-konchu 11: 59-62; – 1964, Kontyû 32: 299-310; – HIURA, I., 1976, J. Soc. Biol. Nagasaki Pref. 1976: 511-530; – KINUGASA, H., 1971, Gracile 12: 28-30; – MIYAZAKI, T., 1972, Gracile 13: 13; – NAKAUCHI, M., 1965, Tombo 8: 29-31; – OHSAWA, N., 1977, Tombo 20: 29-30; – OMORI, T., 1969, Tombo 12: 32; – WATANABE, K., 1977, Tombo 20: 27-28.

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