

Discovery of *Sympetrum vulgatum imitans* Selys from the Noto Peninsula, Japan

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Abstract. Mature males of *Sympetrum vulgatum imitans* Selys, Far East subspecies of a sympetrini dragonfly *S. vulgatum* Linne, were first taken in the Noto Peninsula, Central Japan, at the end of September, 2002.

Key words: Odonata, sympetrini, immigrant.

On 29th, September 2002, I observed four strange dragonflies perching on rocks and/or flying about small pools, in a coastal reedy field (Fig. 1E) of Shika-machi, Hakui County, Ishikawa Prefecture. They were fully mature males and closely resembled *Sympetrum imitoides* Bartenef, in behaviour as well as in appearance, but slightly less alert. Inspection of three collected specimens (Fig. 1A), however, revealed that these dragonflies are distinctly different from *S. striolatum imitoides* (cf. Asahina, 1961). Shape of their accessory genitalia is identical with that of *S. vulgatum* Linne distributing in the northern part of Eurasian continent. Thus, inner branch (anterior process/anterior claw) of hamulus is relatively short, and outer branch (posterior process) is blunt-tapered (Fig. 1F,G), as illustrated by Tillyard (1917) and Askew (1988). In addition, outer side of femur and tibia bears a pale yellow stripe (Fig. 1C), and basifrontal black stripe is clear, extending downward alongside the eyes (Tillyard, 1917). The captured dragonflies were, however, larger than European *S. vulgatum* (Table 1 and Fig. 1B), and their wings were tinged with pale yellow along the costa, in common with *S. vulgatum imitans* Selys, Far east subspecies ranging from Mongolia to Sakhalin through Northeast China and Primorskij (Belyshev, 1973; Fukui, 1995). Hitherto *S. vulgatum imitans* was unknown from Japan, although its discovery has been expected (Inoue, 1996).

In the coastal field where *S. vulgatum imitans* was caught, more than ten adults of *S. depressiusculum* Selys were observed simultaneously. Furthermore, in the neighboring

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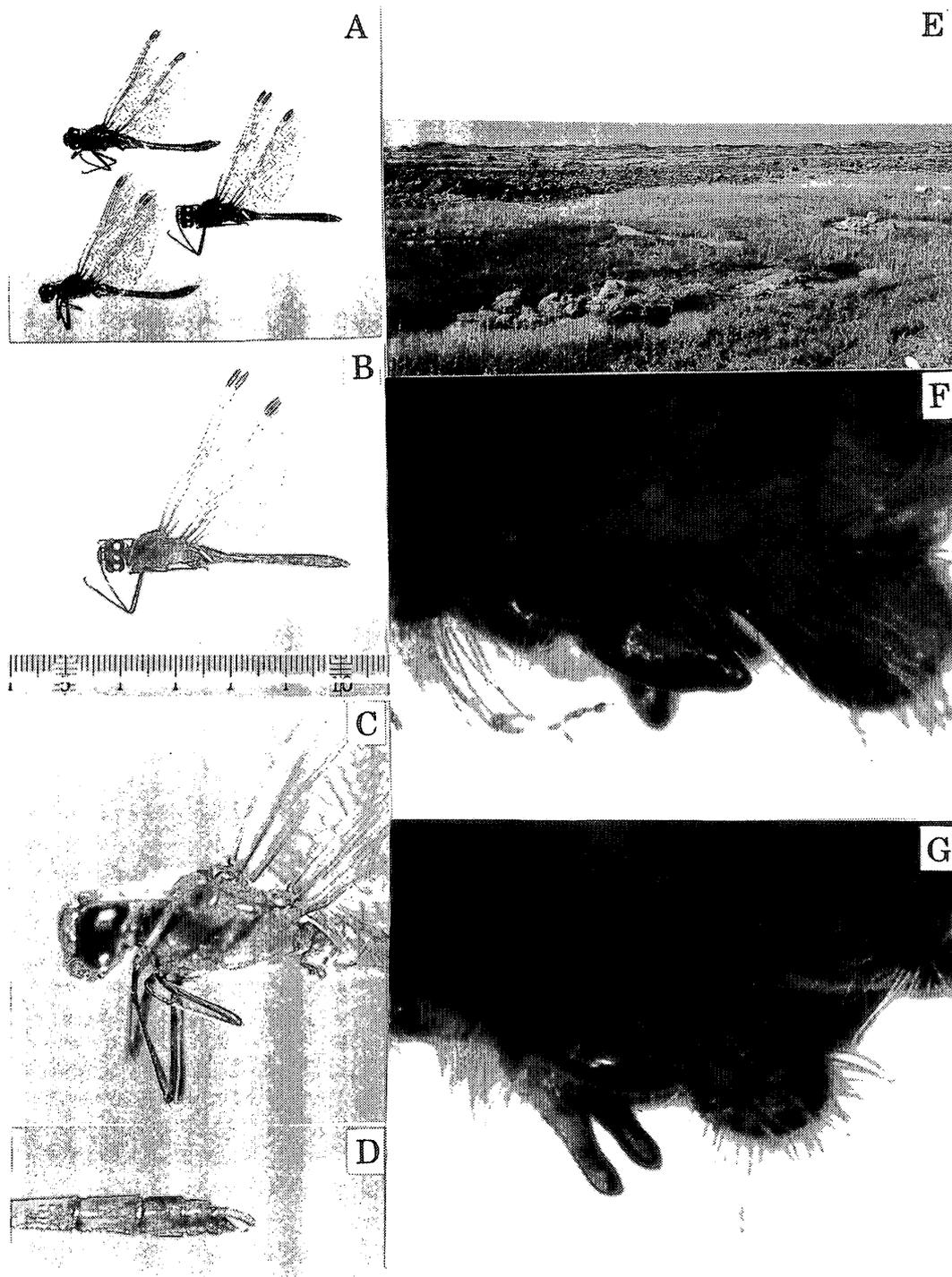


Fig. 1. The observation spot and shape of *S. vulgatum imitans* and *S. striolatum imitoides* (Fig. 1 G only).

A, three collected males of *S. vulgatum imitans*; B, a male specimen ; C, thoracicoabdominal region with legs; D,caudal region; E, the costal field in the Noto Peninsula; F; the accessory genitalia; G, accessory genitalia of *S. striolatum imitoides*.

Table 1. Measurement of *S. vulgatum imitoides* caught in the Noto Peninsula.

Specimen	Hind wing length (mm)	Abdominal length (mm)	Body weight (mg)
1	34.4	30.4	175.8
2	32.0	29.6	176.8
3	32.0	29.7	214.5

Togi region, *S. depressiusculum* was abundantly seen on that day, although only three female insects of *S. cordulegaster* Selys were found there. The latter two *Sympetrum* species are immigrants probably from the continental Asia around the Sea of Japan, and occasionally arrive at the Noto Peninsula after autumn northern gale.

None of the three *Sympetrum* species was detected, when I previously examined the site on 21, September 2002. It is probable that *S. vulgatum imitans* arrived there during 22–28, September. Additional cases of this immigrant will be found in the future, from regions facing the Sea of Japan. Indeed, after my preliminary report (Taketo, 2002), this dragonfly was recorded from Toyama (Futahashi & Futahashi, 2002) and Aomori (Naraoka & Yamada, 2003) Prefectures as well.

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