A Taxonomic Study of Four Closely Resembling Volucella Species (Diptera: Syrphidae)

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Four closely resembling species of the genus *Volucella* Geoffroy are comparatively studied: *Volucella matsumurai* Han et Choi, *V. nigricans* Coquillett, *V. pellucens* (Linnaeus), and *V. tabanoides* Motschulsky. Some of these species are associated with *Vespula* wasp nests. Except for the European *V. pellucens*, the other three species distribute in East Asia. There have been a number of confusions and mistakes involving the identity of the three East Asian species. *V. tabanoides* and *V. nigricans* are in similar size and shape but the former is easily distinguished from the latter by more extensive yellowish white area on the abdominal tergite 2. We also resurrected formerly synonymized *V. pellucens* var. *japonica* Matsumura, and give it a new name, *V. matsumurai* Han & Choi for a homonymy. We found that this species was distinct from any other similar *Volucella* species by their elongated abdominal tergite 2 and blackish upper frons.