SU, Z.-H., O. TOMINAGA, M. OKAMOTO & S. OSAWA, 1998. Origin and diversification of hindwingless *Damaster* ground beetles within the Japanese Islands as deduced from mitochondrial ND5 gene sequence (Coleoptera, Carabidae). *Mol. Biol. Evol.*, **15**: 1026–1039.

TOMINAGA, O., Z.-H. SU, C.-G. KIM, M. OKAMOTO, Y. IMURA & S. OSAWA, 2000. Formation of the Japanese Carabina fauna inferred from a phylogenetic tree of mitochondrial ND5 gene sequences (Coleoptera, Carabidae). *J. mol. Evol.*, **50**: 541–549.

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Damaster blaptoides (Coleoptera, Carabidae) from Brat Chirpoyev Island of the Kurils, Russia

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Damaster blaptoides has been known as a peculiarly shaped ground beetle widely distributed in Japan and the southwestern part of the Kurils. The Hokkaido population is discriminated from several other forms distributed in Honshu, Shikoku and Kyushu as subsp. *rugipennis*, although the specimens from northernmost Honshu belong to the same lineage as the Hokkaido population on a phylogenetic tree of the mitochondrial NADH dehydrogenase subunit 5 (ND5) gene (SU *et al.*, 1998; KIM *et al.*, 1999).

During the expedition performed under the International Kuril Islands Project in 1997, two specimens identified with *Damaster blaptoides* were captured at the Cape Garovnikova of Brat Chirpoyev Island (the central part of the Kuril Islands, Russia; 46°28.405′N / 150°48.160′E), about 500 km off the eastern edge of Hokkaido. One of the specimens (female, 37.5 mm in length including mandibles, 20–VIII–1997, Yasuhiro KUWAHARA leg.) was analysed for the ND5 gene sequence. The 1,069 bp sequence examined was identical with those from Nemuro, Hokkaido. Also, only 1, 1 and 2 base changes were detected between the Kuril specimen and the specimens from Samani, Taiki and Hakodate in Hokkaido (0.094%, 0.094% and 0.19% difference), while the differences of the Kuril specimen from other parts of Hokkaido such as Niseko, Oshamanbe and Abashiri were 0.56%, 0.56% and 0.66% (6, 6 and 7 base changes), respectively. Incidentally, the average sequence difference between the eastern and the western lineage of the Japanese *Damaster* is 4.2% (45 base changes) corresponding to their divergence about 15 million years ago (SU *et al.*, 1998). Thus, it may be assumed that a population that had

inhabited around the west coast of Hokkaido rapidly expanded its distribution to east along the coast, followed by a fairly recent immigration to the Kurils, having reached Brat Chirpoyev Island presumably through the past land bridges. This finding is of interest from the viewpoint of biogeographical relationship between Hokkaido and the Kurils.

The head and prothorax of this specimen are slightly robuster and the elytral surface is a little more roughly sculptured as compared with those of the Hokkaido specimens, though some of the latter reveal a tendency similar to the specimen from the Kurils. Otherwise no clear morphological differences were found. The decision as to whether the Kuril population is differentiated at a subspecies level or not should be waited until more specimens are examined.

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References

SU, Z.-H., O. TOMINAGA, M. OKAMOTO & S. OSAWA, 1998. Origin and diversification of hindwingless *Damaster* ground beetles within the Japanese Islands as deduced from mitochondrial ND5 gene sequences (Coleoptera, Carabidae). *Mol. Biol. Evol.*, **15**: 1016–1039.

KIM, C.-G., S. SAITO, O. TOMINAGA, Z.-H. SU & S. OSAWA, 1999. Distributional boundaries of the geographic races of *Damaster blaptoides* (Coleoptera, Carabidae) in northeastern Japan as deduced from mitochondrial ND5 gene sequences. *Elytra, Tokyo*, **27**: 635–641.