NOTA BREU

New records on the presence of the genus *Caenocara* C. G. Thomson, 1859 (Coleoptera: Ptinidae: Dorcatominae) in Korea

Noves dades sobre la presència del gènere *Caenocara* C. G. Thomson, 1859 (Coleoptera: Ptinidae: Dorcatominae) a Corea

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The genus *Caenocara* CG Thomson, 1859 is morphologically similar to *Dorcatoma* Herbst, 1792 and *Mizodorcatoma* Hayashi, 1955, but well separated from *Dorcatoma* by the conformation of the metasternum not furrowed in the middle, furrowed in *Dorcatoma*, and from *Mizodorcatoma* by the antennae of nine segments, eleven in *Mizodorcatoma* (Viñolas, 2013).

The genus is widely spread over the Nearctic, Neotropical, Oriental and Palaearctic regions. Only three species are known from eastern Asia Palaearctic, *C. rufitarse* Reitter, 1878 (Japan and Korea), *C. subglobosum* (Mulsant & Rey, 1864) (wide Palearctic distribution) and *C. tsuchiguri* Sakai, 1984 (Japan) (Zahradník. 2007).

Caenocara rufitarse and *C. tsuchiguri* are located in the group of *C. affine* (Sturm, 1834) due to the conformation of the last segment of the maxillary palps, very transverse, but well separated from it by the lateral striae of the sulciform elytra, with convex intervals, planes and fine striae in *C. affine* and by the different conformation of the aedeagus (Español, 1977; Viñolas, 2013).

The *C. affine* group also includes the following Nearctic species, *C. ovale* Fall, 1905, *C. oculatum* (Say, 1824) (both from the United States of America) and Neotropical specie *C. quercus* Champion, 1913 (Mexico and Guatemala). Español (1977) indicates that *C. quercus* is a form of *C. oculatum* to which it must join, only presents the inverted aedeagus as the only difference, very common inversion in species with asymmetric aedeagus.

Normally the Palaearctic species of the genus present a blackish coloration, although in many of them there are specimens with a reddish blackish coloration, as is the case of the specimen studied, with the prothorax edges and the basal and sutural edges of the elytra totally black (Viñolas, 2013).

Español (1977) in the revision of the genus *Caenocara*, indicates the presence of *C. subglobosum* for the first time from South Korea, with the study of a series of specimens deposited in the collections of the Hungarian Natural History Museum (Budapest) and labelled «Pyongan, De-Sang San, South Korea. (Horvatovich-Papp leg.)». Curious indication, as Pyoangan-do province is located in North Korea not in South Korea.

Caenocara rufitarse Reitter, 1878 (Figure 1)

Caenocara rufitarsis Reitter, 1878. *Deutsche Entomologische Zeitschrift*, 22 (1): 90

Dorcatoma (*Caenocara*) *granulum* Kiesenwetter, 1879. *Deutsche Entomologische Zeitschrift*, 23 (2): 318

Caenocara rufitarsis var. *grouvellei* Pic, 1937. *Mélanges Exotico-Entomologiques*, 69: 4

Species characterized by the elytra with two complete and well marked marginal striae, with convex intervals and by the configuration of the antenna club, the last segment of the maxillary palps as wide as they are long and by the aedeagus.

Separated from *C. tsuchiguri* Sakai, 1984, the second species (from the *affine* group) present and described also from Japan, by the different configuration of the antennae, the last segment of the maxillary palps and the elytral striae of *tsuchiguri*. Sakai (1984) also indicates the very different contour of the body.

Specimens studied

1 ♀, labelled as: «Gimje-si, Jeollabuk-do, South Korea | 19.05.11-19.06.14 MT | MJ. Kang, JM. Bae, PK Park leg. | 35º 46' 53.5" N 127º 02' 12.5" E». Deposited in the collection of A. Viñolas.

Figure 1. Habitus of the female of *Caenocara rufitarse* Reitter, 1878, from Gimje-si, Jeollabuk-do, South Korea. Scale = 1 mm.

Specimens revised

1 ♀, labelled as: «07-VIII-1971 | South Pyongan | Korea», registration (MZB | 76-5188). Deposited in the collection of the Museum of Natural Sciences of Barcelona.

Distribution

Known, at the moment, from Japan (typical localization) and from Korea (Jeollabuk-do and Pyeongan-do provinces). The species was already included in the National Species list of Korea. III. Insects (Hexapoda) (NIBR, 2019). Although the genus for South Korea had already been cited without specifying the species, figure 2 (Jeon *et al.*, 2014).

Biology

There are no data on its biology. Although it is to be expected, like all species of the genus, it is mycetophagous in fungi Agaricaceae.

Caenocara tsuchiguri Sakai, 1984

Caenocara tsuchiguri Sakai, 1984. *Transactions of the Shikoku Entomological Society*, 16 (3): 15

Species characterized by a more graceful body contour, by the conformation of the last segment of the maxillary palps, by its three elytral striae, the first and second complete and the third short and located in the humeral region. Also, according to Sakai (1984) by the conformation of the aedeagus.

Separated from *C. rufitarse* by the conformation of the first and second segment of the antennal club, less dilated, by the conformation of the last segment of the maxillary palps, by the elytral striae, in number of three and by the conformation of the aedeagus. Characters that also separate it from *C. affine*.

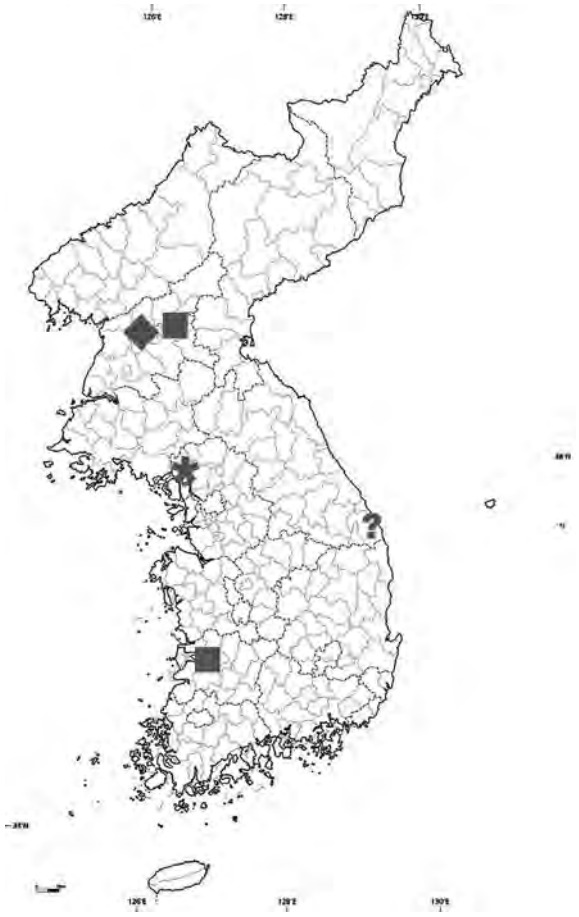

Figure 2. Map of Korea with the known distribution of: ■) *Caenocara rufitarse*; ◆) *C. subglobosum*; ✱) *C. tsuchiguri*; **?**) *Caenocara* sp.

Español (1977) in the revision of the genus *Caenocara*, shows the genitalia of the Japanese specimen *C. rufitarse*, but this specimen in fact belongs to the described species *Caenocara tsuchiguri* also from Japan.

Specimens revised

1 ♂ and 3 ♀, labelled: 1 ♂ and 2 ♀ «9-IX-1971 | Mtes. Paykon 27 km | Kaesong | Korea | Horvatovich, S. & Papp, J. leg.», registration (MZB | 76-5159; 76-5160; 76-5161); 1 ♀ «Kyoto | Japan», registration (MZB | 76-5162). Deposited in the collection of the Museum of Natural Sciences of Barcelona.

Distribution

Species with a wide distribution in Japan (Sakai, 1984), The specimen from Gaeseong city, Hwanghaebuk-do province is the first record of the species for Korea.

Biology

According to Sakai (1984) a large number of specimens have been collected in Geastraceae fungi of the genus *Geastrum* Pers. The biology of the specimens studied is unknown.

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References

ESPAÑOL, F. 1977. Notas sobre anóbidos. 74: Sobre Anobiidae de Ghana: el género *Rhamma* Peyerimhoff . 75: Contribución al conocimiento de las *Caenocara* Thoms. Euroasiáticas. 76: Avance al estudio de la sección *Dorcatoma*. *Miscelánea Zoológica*, 4 (1): 171-215.

NATIONAL INSTITUTE OF BIOLOGICAL RESOURCES (NIBR). 2019. National Species list of Korea. III. Insects (Hexapoda). Designzip Press. Incheon. 988 p. (in Korean)

JEON, J., ROH, S., SHIN, S., SHIN, Y., SON, J., PARK, S. & BYUN, B. 2014. Insect fauna of the scheduled regeneration forests in Samcheok, Gangwon-do, Korea in summer. *Journal of Asia-Pacific Biodiversity*, 7: e72-e75.

SAKAI, M. 1984. Studies on the Anobiidae (Coleoptera) from Japan and neighboring countries IV. Three new species of Dorcatominae from Japan. *Transactions of the Shikoku Entomological Society*, 16 (3): 11-17.

VIÑOLAS, A. 2013. Els Dorcatominae de la península Ibèrica i de les illes Balears. 1a nota. Els gèneres *Caenocara* C. G. Thomson, 1859, *Calymmaderus* Solier, 1849 i *Mizodorcatoma* Hayashi, 1955 (Coleoptera: Ptinidae). *Butlletí de la Institució Catalana d'Història Natural*, 77 (2012-2013): 117-132.

ZAHRADNÍK, P. 2007. *Ptinidae* (except subfamilies Gibbiinae y Ptininae). P. 339-362. In: Löbl, I. & Smetana, A. (eds.). Catalogue of Palaearctic Coleoptera. Vol. 4. Apollo Books. Stenstrup. 935 p.