

***Rossomyrmex quandratinodum* Xia & Zheng, 1995 a new ant species for
Kazakhstan (Hymenoptera, Formicidae)**

A. Tinaut¹, F. Ruano¹, O. Sanllorente¹, A. Zambrano¹ & Y. Kaz²

The genus *Rossomyrmex* Arnoldi, 1928 currently includes four species. Chronologically: *R. proformicarum* Arnoldi, 1928, *R. minuchae* Tinaut, 1981, *R. quandratinodum* Xia & Zheng, 1995 and finally *R. anatolicus* Tinaut, 2007. Their type localities are shown on Figure 1.

Rossomyrmex proformicarum was described in the Caspian plains (Arnoldi, 1928) but, in 1974, Marikovskiy also cited it in the eastern end of Kazakhstan (NE from Almaty) and 2400 Km from the type locality.

During June 2007 some members of our research group visited the desert of Semirechje, the Big Kalkan, middle course of the river Ily and the lower course of the river Charin, the localities mentioned by Marikovskiy (1974) as inhabited by *R. proformicarum* in eastern Kazakhstan. Of these, only in the depression on the Ily River, near the Charin River (N: 43° 21.956'; E: 079° 01.262') were we able to find barely three *Rossomyrmex* nests after an exhaustive search for more than ten days. In the field, we confirmed that the collected samples did not correspond as expected to *R. proformicarum*, but to *R. quandratinodum*.

Rossomyrmex quandratinodum (Xia & Zheng, 1995) is very characteristic because of its pilosity and the square profile of the petiole but above all because of its colour, markedly bicoloured, with an orange head and thorax, and black gaster, as described by Xia & Zheng (1995). Up to now, it is the only bicoloured species in the genus, making a clear differentiation from *R. proformicarum*.

We failed to locate the specimens studied by Marikovskiy but there are some circumstances that lead us to doubt the presence of *R. proformicarum* in the areas studied by this author. First, it is

improbable that both species of the same genus inhabit the same site. Secondly, if not, we would not expect the three nests sampled to belong to one single species. Thus we suggest the possibility that Marikovskiy did not compare his material with the original description of the only species of the genus known at that moment (1974), assuming that the samples he saw and studied belonged to it.

Besides, the original described area for the species is the plain of Urumchi region, East of China. In fact, the location where we found *R. quandratinodum* is less than 100 Km from the Chinese border and represents a continuation of the Chinese steppes from the region of Urumchi. The Ily River comes from this region in China. Therefore, the two plains form a geographical continuity.

All this allows us to affirm the synonymy between the samples of *R. proformicarum* studied by Marikovskiy (1974) and *R. quandratinodum*. Moreover, our discovery represents the first citation of *R. quandratinodum* in Kazakhstan.

Therefore, we propose formally the following synonymy: *Rossomyrmex proformicarum* Marikovskiy, 1974, *Ins. Soc.*, 21: 301-308 = *Rossomyrmex quandratinodum* Xia & Zheng, 1995, *Entomotax.*, 17: 219.

The material of the present study is stored in the first author's collection and in the entomological collection in the National Museum of Natural Sciences of Madrid.

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¹ Department of Animal Biology, Faculty of Sciences, University of Granada. Granada. Spain hormiga@ugr.es

² Department of Biology, Faculty of Sciences, L.N. Gumilev Eurasian National University, Astana. Kazakhstan.

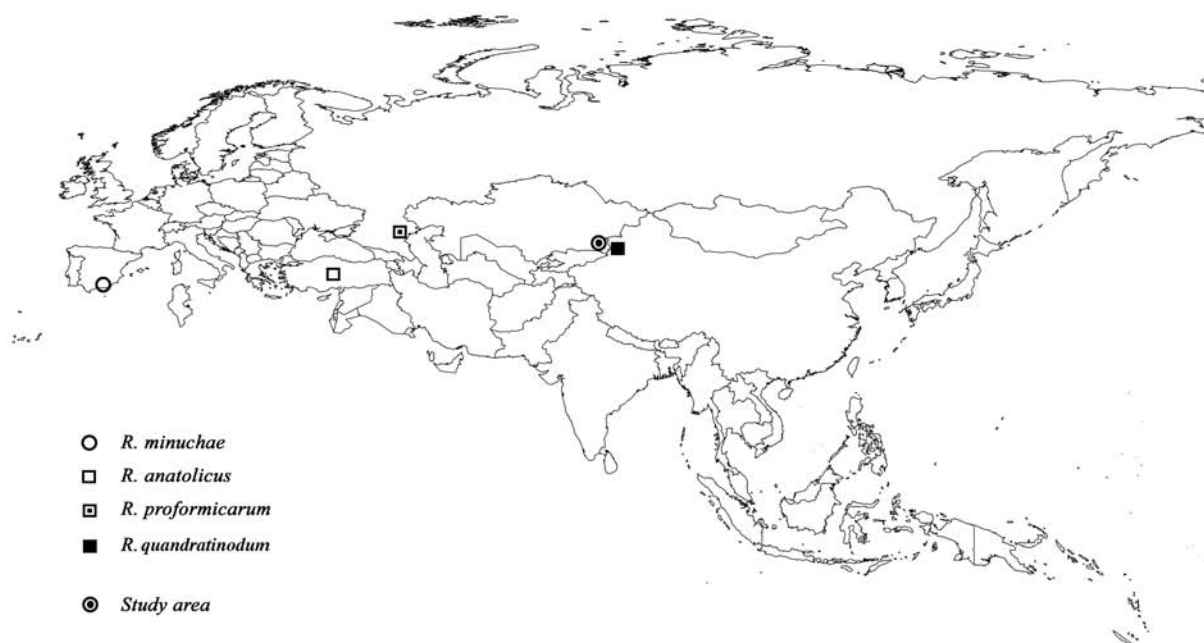


Fig. 1.— Type localities of the species of the genus *Rossomyrmex*.

Fig. 1.— Localidades tipo de las diferentes especies del género *Rossomyrmex*.

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XIA, Y. & ZHENG, Z., 1995. [A new record genus and a new species of Formicidae (Hymenoptera) from China.] *Entomotaxonomia*, 17: 219-221 (in Chinese).

References

- ARNOLDI, K. W., 1928. Studien über die systematik der Ameisen, III. *Rossomyrmex* Neue gattung der Ameisen and ihre bezie-hungen zu der anderen Gattungen der Formicidae. *Zoologischer Anzeiger*, 75: 299-310.
- MARIKOVSKY, P. I., 1974. The biology of the ant *Rossomyrmex proformicarum* Arnoldi (1928). *Insectes Sociaux*, 21(3): 301-308.
- TINAUT, A., 1981. *Rossomyrmex minuchae* nov. sp., (Hym. Formicidae) encontrada en Sierra Nevada, España. *Boletín de la Asociación española de Entomología*, 4: 195-203.
- TINAUT, A., 2007. A new species of the genus *Rossomyrmex* Arnoldi, 1928 from Turkey (Hymenoptera, Formicidae). *Graellsia*, 63(1): 135-142.

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