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## FAUNISTIC RECORDS OF CRABRONIDAE (HYMENOPTERA) FROM MARAMUREȘ (ROMANIA)

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**Abstract.** Altogether thirty seven species of family Crabronidae are established to inhabit Maramureș county in North Romania. Thirty two of them are firstly recorded for Maramureș. Two species are recorded for Romania for the first time: *Nysson ganglbaueri* Kohl, 1912 and *Crossocerus tarsatus tarsatus* (Shuckard, 1837). Comments concerning the morphology of *Nysson ganglbaueri* male are presented.

**Résumé.** Un total de trente sept espèces appartenant à la famille des Crabronidae a été établi pour le département de Maramureș du nord de la Roumanie, dont trente deux y ont été trouvées pour la première fois. Deux de ces espèces sont citées pour la première fois en Roumanie, *Nysson ganglbaueri* Kohl, 1912 et *Crossocerus tarsatus tarsatus* (Shuckard, 1837). On discute la morphologie du mâle de *Nysson ganglbaueri*.

**Key words:** Crabronidae, Romania, faunistic records.

### INTRODUCTION

Maramureș county occupies an area of 6304 km<sup>2</sup> almost a half of which is covered by Rodna Mountains - part of the Eastern Carpathians. Hills, plateaus, and valleys cover the rest of the county. The climate is the main obstacle for Crabronid distribution, here being colder and more humid than in other regions of Romania. It is known that digger wasps of Crabronidae family display both great diversity and abundance in arid regions of the earth, thus fauna of such regions as Maramureș is expected to be poor. Compared with other counties of Romania, Maramureș is one of the poorest, concerning faunistic records of Crabronid wasps (Scobiola-Palade, 1967). Only five species are reported for Maramureș, by Szilády (1914): *Astata boops*, *Argogytes fargeii*, *Cerceris arenaria*, *Mimesa equestris*, and *Trypoxylon clavicerum*.

### MATERIAL AND METHOD

Sixty-two specimens of Crabronidae served as a base for the present study. They are part of the material collected by sweep net during the period 1995 - 1998 and 2003 - 2004 (Ban, 2005). The sites where material has been collected from are shown in figure 1.

New records for the Romanian fauna are marked with an asterisk. Morphological terms used in the descriptions of sculpture details in *Nysson ganglbaueri* were taken from Melo (1999). The material is deposited in the collections of "Grigore Antipa" National Museum of Natural History, Bucharest (București) and the Institute of Zoology, Sofia.

### RESULTS

Thirty-seven species belonging to 19 genera of family Crabronidae were identified. For most of the species, we present the material (number of specimens, sex, collecting site, date, legit) and the reports from literature.

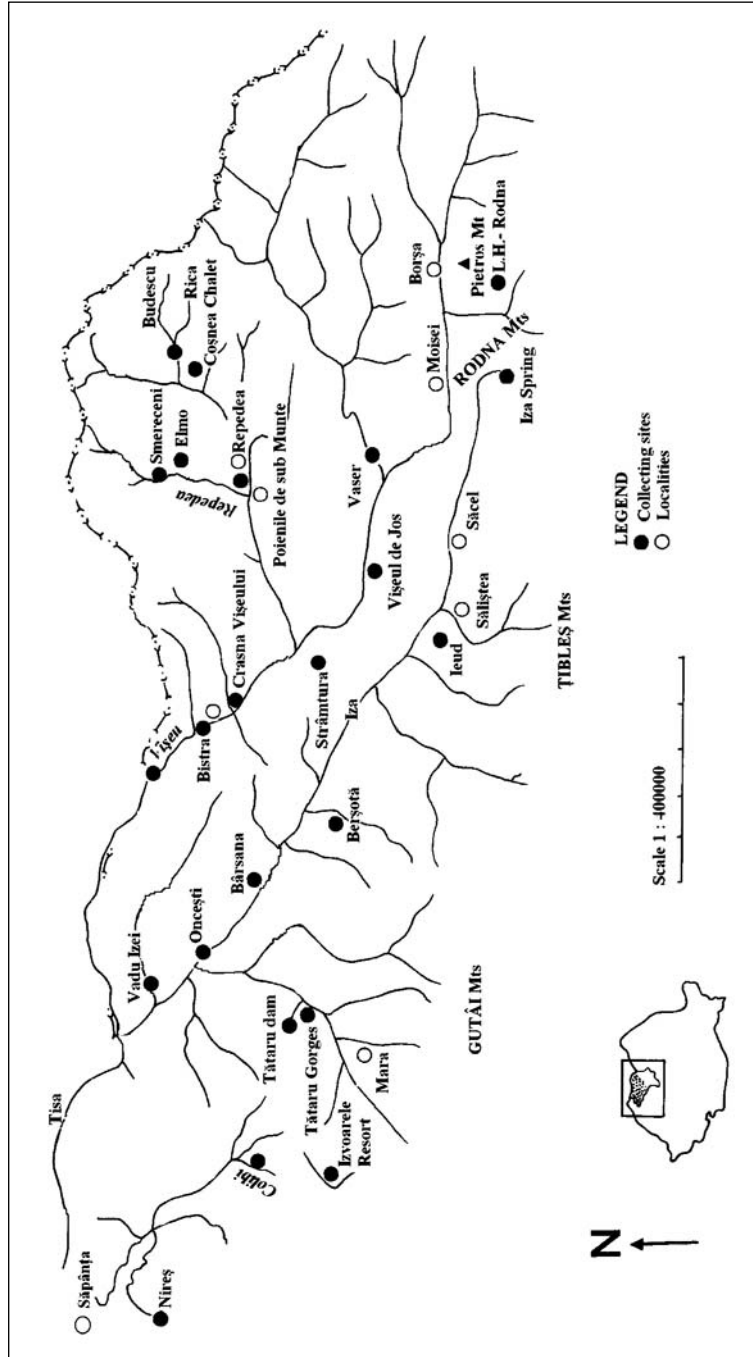


Fig. 1 – Map of Maramureş County showing the collecting sites where the material was sampled.

*The list of the species*

## Family Crabronidae Latreille, 1802

Genus *Astata* Latreille, 1796*Astata boops boops* (Schrank, 1781)*Records*: Szilády, 1914: 88 (Radnai havasok, 800 m).Genus *Alysson* Panzer, 1806*Alysson spinosus* (Panzer, 1801)*Material*: 1 ♂, Vișeu Valley: confluence Vișeu - Tisa, 24. VII. 2004, G. Chișamera leg.; 1 ♀, Repedea: Forest Chalet, 18.VI. 2003, C. Pârnu leg.Genus *Nysson* Latreille, 1802\* *Nysson ganglbaueri* Kohl, 1912*Material*: 1 ♂, Poienile de Sub Munte: confluence Rica – Budescu, 14. VI. 2003, C. Pârnu leg.

*Remarks*. This species known so far from several localities at high mountain areas in Austria, France, Italy, and Switzerland (de Beaumont, 1945; Bitsch et al., 1997) seems to be rare met. It was re-described and compared with *N. dimidiatus* Jurine, 1807 for both sexes by de Beaumont (1945). The same author found this species in localities of Switzerland accompanied by *Harpactus lunatus* (Dahlbom, 1832) which is presumed to be the host for *N. ganglbaueri*. In general, knowledge on the range of *H. lunatus* suggest that this later species could be found in North Romania including Maramureș too. The male specimen from Poienile de Sub Munte fits in full the redescription of de Beaumont to *N. ganglbaueri*. It has perforaminal depression surrounded dorsally by well developed carina which runs from both sides of foramen magnum down to the level of its ventral margin; seventh metasomal tergum has a weak, hardly visible median tooth and mesoscutal disc is densely punctured (punctures are separated by 0.4 – 1.1 x their own diameter); the last flagellomere is long as combined length of the three previous flagellomeres, slightly wider than them and weakly double emarginated below; flagellomers 1. – 8. has its ventral surface covered by slightly curved at the point setae in length of about 0.5 – 0.7 x of the maximum width of the relevant flagellomere; flagellomers 2. – 5. clearly wider than long; mesoscutum is uniformly punctured having shiny interspaces between punctures; mesopleuron with sparse micro- and macropunctures, which are densest in its upper part (punctures there are apart not less than their own diameter). First metasomal tergum and apicolateral spots on second metasomal tergum rusty red; front surface of fore and mid tibiae, couple transversally disposed spots preapically on metasomal terga 1. – 3. pale yellow to lemon yellow; basal half of fore and mid tarsi testaceous to dark yellow; apical half fore and mid tarsi and hind tarsi rusty to light brown.

*Nysson maculosus* (Gmelin, 1787)*Material*: 1 ♂, Poienile de Sub Munte: confluence Rica – Budescu, 14. VI. 2003, C. Pârnu leg.Genus *Argogorytes* Ashmead, 1899*Argogorytes fargeii* (Shuckard, 1837)*Records*: Szilády, 1914: 89, reported it as *Gorytes campestris* (Radnai havasok, 1100 m).

Genus *Cerceris* Latreille, 1802*Cerceris arenaria arenaria* (Linnaeus, 1758)*Records*: Szilády, 1914: 89 (Radnai havasok, 800 m).*Cerceris quinquefasciatus quinquefasciatus* (Rossi, 1792)*Material*: 2 ♂♂, Oncești, 10. VII. 1995, I. Matache leg.; 1 ♂, Bârsana, 5.VII. 1995, I. Matache leg.*Cerceris rybyensis rybyensis* (Linnaeus, 1771)*Material*: 1 ♂, Bistra: 3 km upstream, 24. VII. 2004, G. Chișamera leg.; 1 ♂, Săpânța: Colibi, 8. VII. 1996, A. Stănescu leg.; 1 ♂, Vadul Izei, 9. VII. 1995, I. Matache leg.*Cerceris sabulosa sabulosa* (Panzer, 1799)*Material*: 1 ♂, Mara: Tătaru dam, 16. VII. 1998, A. Petrișor leg.Genus *Mimesa* Shuckard, 1837*Mimesa equestris* (Fabricius, 1804)*Records*: Szilády, 1914: 88 (Radnai havasok, 800 – 1400 m).Genus *Mimumesa* Malloch, 1933*Mimumesa atratina* (F. Morawitz, 1891)*Material*: 1 ♂, Repedea: Forest Chalet, 18. VII. 2003, C. Pârvu leg.*Mimumesa dahlbomi dahlbomi* (Wesmael, 1852)*Material*: 1 ♀, Bistra, 24. VI. 2004, R. Serafim leg.*Mimumesa unicolor* (Vander Linden, 1829)*Material*: 1 ♀, Ieud, 8. IX. 1995, C. Pârvu leg.Genus *Psen* Latreille, 1796*Psen ater* (Olivier, 1792)*Material*: 1 ♀, Izvoarele Resort: 7 km downstream, 23. VII. 1998, I. Matache leg.Genus *Psenulus* Kohl, 1897*Psenulus pallipes pallipes* (Panzer, 1798)*Material*: 1 ♀, Vișeu Valley: confluence Vișeu - Tisa, 24. VII. 2004, G. Chișamera leg.Genus *Passaloecus* Shuckard, 1837*Passaloecus singularis* Dahlbom, 1844*Material*: 2 ♀♀, Izvorul Izei, 6. VII. 1995, C. Pârvu leg.Genus *Pemphredon* Latreille, 1796*Pemphredon inornata* Say, 1824*Material*: 1 ♀, Ieud, 4.VII.1995, I. Matache leg.*Pemphredon lethifer* (Shuckard, 1837)*Material*: 1 ♀, Strâmtura: "Podul Slătioarei" Forest Chalet, 6. VII. 1995, C. Pârvu leg.*Pemphredon lugubris* (Fabricius, 1793)*Material*: 1 ♀, Repedea: Smereceni Clearing, 22. VI. 1997, A. Stănescu leg.; 1 ♂, Săpânța: Colibi, 13-15. VII. 1996, I. Matache leg.

Genus *Trypoxylon* Latreille, 1796

*Trypoxylon (Trypoxylon) clavicerum clavicerum* (Lepeletier de Saint-Fargeau & Audinet-Serville, 1828)

*Records:* Szilády, 1914: 88 (Radnai havasok, 700 m).

*Trypoxylon (Trypoxylon) figulus figulus* (Linnaeus, 1758)

*Material:* 1 ♂, Săcel: Izvorul Albastru al Izei, 9. VII. 1995, C. Hoinic leg.; 1 ♀, Repedea: Forest Chalet, 2. VII. 1997, I. Matache leg.; 2 ♀ ♀, Ieud, 4. VII. 1995, 8. IX. 1995, C. Pârnu leg.; 1 ♀, Mara: Tătaru Gorges, 19. VII. 1998, I. Matache leg.; 1 ♀, Bârsana, 8. IX. 1995, C. Pârnu leg.

Genus *Oxybelus* Latreille, 1796

*Oxybelus trispinosa* (Fabricius, 1787)

*Material:* 1 ♂, Poienile de Sub Munte: Coșnea Chalet, 18. VI. 2003, C. Pârnu leg.

*Oxybelus uniglumis* (Linnaeus, 1758)

*Material:* 1 ♂, Bârsana, 8. IX. 1995, C. Pârnu leg.; 1 ♂, Vișeu de Jos, 22. VIII. 1997, E. Rusu leg.

Genus *Entomognathus* Dahlbom, 1844

*Entomognathus (Entomognathus) brevis* (Vander Linden, 1829)

*Material:* 1 ♂, Poienile de Sub Munte: Coșnea Chalet, 19. VII. 2004, C. Ban leg.; 1 ♂, Vișeu Valley: confluence Vișeu - Tisa, 24. VII. 2004, G. Chișamera leg.; 1 ♂, Ieud, 4. VII. 1995, C. Pârnu leg.; 1 ♀, Bârsana, 8. IX. 1995, C. Pârnu leg.

Genus *Crabro* Fabricius, 1775

*Crabro (Anothyreus) lapponicus* Zetterstedt, 1838

*Material:* 1 ♂, Repedea: Forest Chalet, 2. VII. 1997, I. Matache leg.

*Crabro (Crabro) scutellatus* (von Scheven, 1781)

*Material:* 1 ♂, Vișeu Valley: confluence Vișeu - Tisa, 24. VII. 2004, G. Chișamera leg.

Genus *Crossocerus* Le Peletier-de-Saint-Fargeau & Brullé, 1835

*Crossocerus (Ablepharipus) assimilis assimilis* (F. Smith, 1856)

*Material:* 1 ♀, Poienile de Sub Munte: Coșnea Chalet, 25. VII. 2004, C. Ban leg.

\* *Crossocerus (Crossocerus) tarsatus tarsatus* (Shuckard, 1837)

*Material:* 1 ♀, Vaser Valley: Transect Bardău - Cozia, 22. VII. 2004, G. Chișamera leg.

*Crossocerus (Crossocerus) wesmaei wesmaeli* (Vander Linden, 1829)

*Material:* 1 ♀, Vișeu Valley: confluence Vișeu - Tisa, 24. VII. 2004, C. Ban leg.

Genus *Ectemnius* Dahlbom, 1845

*Ectemnius (Clytochrysus) lapidarius* (Panzer, 1804)

*Material:* 2 ♂ ♂, Vișeu Valley: confluence Vișeu - Tisa, 24. VII. 2004, G. Chișamera & R. Serafim leg.; 1 ♂, Repedea: Smereceni Clearing, 22. VIII. 1997, E. Rusu leg.; 1 ♂, Repedea: Elmo Clearing, 24. VI. 1997, I. Matache leg.; 1 ♂, Crasna Vișeuului, 23-29. VIII. 1997, C. Pârnu leg.

*Ectemnius (Clytochrysus) sexcinctus* (Fabricius, 1775)

*Material:* 1 ♀, Poienile de Sub Munte: Coșnea Chalet, 15. VII. 2004, G. Chișamera leg.

*Ectemnius (Hypocrabro) confinis* (Walker, 1871)

*Material:* 4 ♂♂, Borșa, National Park „Pietrosul Rodnei“ (Laboratory house, 1370 m), 10, 11. VII. 1995, A. Stănescu leg.; 1 ♂, Ieud, 4. VII. 1995, C. Pârvu leg.

*Ectemnius (Hypocrabro) continuus continuus* (Fabricius, 1804)

*Material:* 1 ♂, Vișeu Valley: confluence Vișeu - Tisa, 24. VII. 2004, G. Chișamera leg.

*Ectemnius (Ectemnius) dives* (Le Peletier-de-Saint-Fargeau & Brullé, 1835)

*Material:* 1 ♂, 1 ♀, Poienile de Sub Munte: Coșnea Chalet, 15. VII. 2004, G. Chișamera leg.; 19. VII. 2004, C. Ban leg.; 1 ♀, Vaser Valley: Transect Bardău - Cozia, 22. VII. 2004, C. Ban leg.

*Ectemnius (Hypocrabro) rubicola rubicola* (Dufour & Perris, 1840)

*Material:* 1 ♀, Strâmtura: Slătioara River: Berșota Stream, 7. IX. 1995, C. Pârvu leg.

#### Genus *Lestica* Billberg, 1820

*Lestica (Solenius) clypeata* (Schreber, 1759)

*Material:* 1 ♂, 2 ♀♀, Poienile de Sub Munte: Coșnea Chalet, 15, 26. VII. 2004, G. Chișamera leg.

#### Genus *Lindenius* Le Peletier-de-Saint-Fargeau & Brullé, 1835

*Lindenius albilabris albilabris* (Fabricius, 1793)

*Material:* 1 ♂, Poienile de Sub Munte: Coșnea Chalet, 16. VI. 2003, M. Stan leg.; 2 ♀♀, Vișeu Valley: confluence Vișeu - Tisa, 24. VII. 2004, G. Chișamera leg.; 1 ♀, Săpânța: Nireș, 11. VIII. 1996, I. Matache leg.

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#### SEMNALĂRI FAUNISTICE DE CRABRONIDAE (HYMENOPTERA) ÎN MARAMUREȘ (ROMÂNIA)

##### REZUMAT

Prezenta lucrare este rezultatul cercetării materialului de crabronide colectat din Maramureș în perioadele 1995 - 1998 și 2003 - 2004 de către colectivul Muzeului Național de Istorie Naturală “Grigore Antipa” (București). Cele 62 exemplare studiate aparțin la 37 specii, dintre care 32 specii nu erau menționate anterior în zonă. În literatura veche doar 5 specii de crabronide sunt semnalate aici; se știe însă că aceste viespi săpătoare înregistrează o diversitate și abundență mare în regiunile aride ale globului iar în nordul României climatul este mai răcoros și mai umed.

*Nysson ganglbaueri* Kohl, 1912 și *Crossocerus tarsatus tarsatus* (Shuckard, 1837) se află la prima semnalare în fauna României. Sunt aduse comentarii referitoare la morfologia masculului speciei *Nysson ganglbaueri*.

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