

Wasps of the subfamily Bembicinae (Hymenoptera, Crabronidae) in the collection of the Institute of Zoology, Ministry of Science and Education of the Republic of Azerbaijan

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Abstract

The collection materials of Crabronidae wasps in Institute of Zoology (Baku) presented at the following 16 species from seven Bembicinae genera. Sixteen species are recorded from Azerbaijan, two – from Russia, and six species from Iran. *Gorytes laticinctus* Lepeletier, 1832 is newly recorded from Caucasus and *Gorytes procrustes* Handlirsch, 1888 from Azerbaijan.

Keywords

Wasp, Crabronidae, Bembicinae, fauna, Azerbaijan, collection

Introduction

Crabronidae is distributed worldwide, except Antarctic and Arctic zones, mainly in tropical and subtropical regions. Crabronids, including 90 percentages of apoid

wasps, is the largest group of insects among all families of wasps (Antropov et al. 2017).

There are 250 genera and 8900 species of crabronids in the world, in Palaearctic – 84 genera and 2000 species, in Azerbaijan 42 genera and 232 species (Antropov et al. 2017, Mokrousov et al. 2019, Mokrousov et al. 2020).

The collection materials of Crabronidae wasps presented at the following 16 species from seven Bembicinae genera. *Gorytes laticinctus* Lepeletier, 1832 are newly recorded from Caucasus and *Gorytes procrustes* Handlirsch, 1888 – from Azerbaijan.

Results

Genus *Hoplisoides* Gribodo, 1884

H. latifrons (Spinola, 1808)

Hoplisoides latifrons: Mokrousov et al., 2019: 12.

Material: Azerbaijan: 1♂, Nakhchivan ASSR [=Nakhchivan MR], 20.05.1933, A. Bogachev.

Remarks: This species was previously recorded from Nakhchivan (Mokrousov et al. 2019).

Distribution: Spain, Portugal, France, Belgium, Switzerland, Italy, Germany, Austria, Czech republic, Croatia, Greece, Slovakia, Hungary, Romania, Ukraine, Russia (Crimea, Dagestan, Volgograd prov., Tatarstan, Orenburg prov.), Algeria, Libya, Azerbaijan, Turkey, Uzbekistan, Tajikistan, Kazakhstan (Mokrousov et al. 2020).

Genus *Argogorytes* Ashmead, 1899

A. mystaceus (Linnaeus, 1761)

Argogorytes mystaceus: Mokrousov et al., 2019: 6.

Material: Azerbaijan: 1♀, Eli-su [=Ilisu, Gakh distr.], 21.07.1934, A. Bogachev.

Remarks: This species was previously recorded from Nakhchivan (Mokrousov et al. 2019).

Distribution: Russia, Europe, Turkey, Kazakhstan, Azerbaijan (Nemkov 2017, Mokrousov et al. 2019).

Genus *Gorytes* Latreille, 1805***G. quinquecinctus* (Fabricius, 1793)**

Gorytes proximus: Handlirsch, 1893: 281; 1895: 924.

Gorytes quinquecinctus quinquecinctus: Nemkov, 2017: 223.

Gorytes quinquecinctus: Mokrousov et al., 2019: 12.

Material: Azerbaijan: 1♀, Karagashly, Samukh distr., 2.06.1935, on the *Euphorbia* sp. (Euphorbiaceae), M. Vinovsky.

Remarks: This species was previously recorded from Helenendorf [=Goygol] (Handlirsch 1893, 1895) and Nakhchivan (Mokrousov et al. 2019).

Distribution: Russia, Europe, N Africa, Azerbaijan, Turkey, Syria, Iran, Uzbekistan, Kyrgyzstan, Kazakhstan, Azerbaijan (Nemkov 2017, Handlirsch 1893, 1895, Mokrousov et al. 2019).

***G. procrustes* Handlirsch, 1888**

Material: Russia: 1♂, Uralsk, 21.07.1927, V. Koloskov; **Azerbaijan:** 1♂, Nakhchivan ASSR, Nakhchivan, 20.05.1933, A. Bogachev; 1♀, Eli-su [=Ilisu, Gakh distr.], 21.07.1934, A. Bogachev; 1♂, Karagashly, Samukh distr., 3.06.1935, on the *Euphorbia* sp. (Euphorbiaceae), M. Vinovsky; 1♀, Eldar, Poily, 21.05.1935, A. Bogachev.

Remarks: newly recorded from Azerbaijan.

Distribution: Russia, Europe, Georgia, Turkey, Kazakhstan (Nemkov 2017).

***G. laticinctus* (Lepelletier de Saint Fargeau, 1832)**

Material: Azerbaijan: 1♂, Karagashly, Samukh distr., 3.06.1935, on the *Euphorbia* sp. (Euphorbiaceae), M. Vinovsky.

Remarks: newly recorded from Caucasus and Azerbaijan.

Distribution: Russia, Europe, N Africa, Turkey, Uzbekistan, Kazakhstan (Nemkov 2017).

Genus *Spheci* Dahlbom, 1843***S. antennatus* (Klug, 1845)**

Spheci *antennatus*: Handlirsch, 1889: 452; Nemkov, 1995: 181; 2017: 224; Mokrousov et al., 2019: 17.

Material: Azerbaijan: 2♀♀, Ganja, 2, 5.07.1933, on the onion's flowers, M. Vinovsky; 2♂♂, Station Ganja railway, 19.07.1933, on the flowers of *Anethum*, M. Vinovsky; 1♀, Ganja, 21.06.1932, in the garden, M. Vinovsky; 2♀♀, Ganja, 11, 29.06.1933,

on the onion's flowers, M. Vinovsky; 1♀, Malbinasi, distr. Barda, 7.08.1931, A. Bogachev; 1♂, Yevlakh, 15.06.1940, A. Bogachev; 1♂, Bekhmanly, valley Araz, 18.04.1926, Bocharnikov; 4♂♂, Mil's steppe, 9, 12, 14, 15.06.1934, A. Bogachev; 1♂, Gazakh, 11.07.1941, A. Bogachev; 1♀, Shemakha, 25.06.1937, N. Tertishnikov; 1♂, Kurd-Makhmudly distr., Karyagino (now Fizuli), 14.06.1924, Bocharnikov; 1♂, Mingachaur railway st., 23.07.1933, in the gallery, B. Lototosky. **Iran:** 8♂♂, 1♀, Gaur-arkh, Persia, Ungut-Mugan, 10, 19, 21.06.1927, Bocharnikov.

Remarks: This species was previously recorded from Helenendorf [=Goygol], Yevlax (Handlirsch, 1889), Tash-Bulag near Nukha [=Sheki], Kirovobad [=Ganja], Geokchai, Shamkhor, Kuduly, Julfa, Nakhchivan (Nemkov 1995) and Nakhchivan (Mokrousov et al. 2019).

Distribution: Albania, Cyprus, Greece, Iran, Israel, Italy, Kazakhstan, Mongolia, Montenegro, Russia, Syria, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan, Azerbaijan (Handlirsch, 1889, Nemkov 1995, Jahantigh et al. 2017, Mokrousov et al. 2019).

Genus *Stizoides* Guérin-Méneville, 1844

S. tridentatus (Fabricius, 1775)

Stizus tridentatus: Handlirsch, 1892: 101.

Stizoides tridentatus: Ohl, 1999: 139; Nemkov, 2012: 10; Mokrousov et al., 2019: 17.

Stizoides tridentatus tridentatus: Nemkov, 2017: 225.

Material: Azerbaijan: 3♀♀, Mil's steppe, 9.06.1934, A. Bogachev; 1♀, Ganja, 29.06.1933, on the onion's flowers, M. Vinovsky.

Remarks: This species was previously recorded from Helenendorf [=Goygol], Murut [=Ucbulaq], Kilasi (Handlirsch 1892), Goradiz, Ganja, Helenendorf [=Goygol], Karadag [=Baku] (Ohl 1999), Altan (Nemkov 2012) and Nakhchivan (Mokrousov et al. 2019).

Distribution: Algeria, Bulgaria, Croatia, Cyprus, Egypt, France, Greece, Hungary, Iran, Israel, Italy, Kazakhstan, Libya, Macedonia, Madagascar, Mongolia, Morocco, Portugal, Romania, Russia, Spain, Switzerland, Tajikistan, Tunisia, Turkey, Turkmenistan, Ukraine, Uzbekistan, Azerbaijan (Handlirsch 1892, Ohl 1999, Nemkov 2012, Jahantigh et al. 2017, Mokrousov et al. 2019).

S. crassicornis (Fabricius, 1787)

Stizoides crassicornis: Nemkov, 2017: 225.

Material: Azerbaijan: 2♀♀, Mil's steppe, 11, 14.06.1934, A. Bogachev.

Distribution: Algeria, France, Iran, Israel, Italy, Kazakhstan, Palestine, Russia, Spain, Turkey, Turkmenistan, Ukraine, Azerbaijan (Jahantigh et al. 2017, Nemkov 2017).

Genus *Stizus* Latreille, 1802***S. annulatus* (Klug, 1845)**

Stizus annulatus: Mokrousov et al., 2019: 17.

Material: Azerbaijan: 1♀, Ganja, 5.08.1933, on the *Eryngium* sp. (Apiaceae), M. Vinovsky; 1♀, Ganja, 29.06.1933, on the onion's flowers, M. Vinovsky; 4♀♀, Lerik, Kalakhan, 24.07.1976, H. Aliev; 1♀, Ganja, Kara-yeri, 2.06.1932, on the flowers, M. Vinovsky; 1♀, Lerik, Gosmalyan, 24.07.1976, H. Aliev; 1♂, Baku, Surakhany, 7.07.1936, on the *Eryngium* sp. (Apiaceae), N. Tertyshnikov; 1♀, Zakataly, 23.06.1924, on the flying, P. Maximovich; 3♂♂, Baku, Surakhany, 6, 7.07.1936, on the *Eryngium* sp. (Apiaceae), N. Tertyshnikov; 1♀, Ganja, 21.07.1932, on the garden, M. Vinovsky; 1♀, Ganja, 28.07.1933, on the *Eryngium* sp. (Apiaceae), M. Vinovsky; 1♀, Ganja, 10.06.1932, on the flying in the garden, M. Vinovsky; 1♀, Ganja, 22.07.1932, on the flying in the garden, M. Vinovsky.

Remarks: This species was previously recorded from Nakhchivan (Mokrousov et al. 2019).

Distribution: SE Europe, N Africa, Armenia, Turkey, Syria, Israel, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, Azerbaijan (Roche 2007, Nemkov 2017, Mokrousov et al. 2019).

***S. rufiventris* Radoszkowski, 1877**

Stizus rufiventris: Mokrousov et al., 2019: 17.

Material: Azerbaijan: 5♂♂, 3♀♀, Baku, Botanical garden, 10.07.1937, M. Vinovsky.

Remarks: This species was previously recorded from Nakhchivan (Mokrousov et al. 2019).

Distribution: Turkey, Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan, Mongolia, Iran, Azerbaijan. (Yildirim et al. 2016, Mokrousov et al. 2019).

Genus *Bembix* Fabricius, 1775***B. eburnea* Radoszkowski, 1877**

Bembix eburnea: Mokrousov et al., 2019: 8.

Material: Azerbaijan: 2♀♀, Ganja, 11.07.1933, on the flying, M. Vinovsky; Iran: 1♂, Mugan Persia, Gaur-Ark, 12.06.1927, Bocharnikov; 1♂, Persia, Mugan, Kuruchay, 21.06.1927, Bocharnikov.

Remarks: This species was previously recorded from Nakhchivan (Mokrousov et al. 2019).

Distribution: Turkey, Russia (Crimea, Volgogradskaya Oblast), Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, Iran, Afghanistan, Mongolia, China (Xingiang, Inner Mongolia, Hebei, Beijing, Tianjin), Azerbaijan (Nemkov 2016, Mokrousov et al. 2019).

***B. rostrata* (Linnaeus, 1758)**

Bembix rostrata: Nemkov, 2016: 22; Mokrousov et al., 2019: 8.

Bembix rostrata rostrata: Nemkov, 2017: 222.

Material: Azerbaijan: 1♂, 1♀, Zakataly, Katekhy, 22.07.1933, A. Bogachev; 2♀♀, Zakataly, 29.06.1938, A. Bogachev; 1♀, Lerik, Gosmalyan, 24.07.1976, H. Aliev; 1♂, Ganja, 26.07.1932, in the garden, M. Vinovsky; **Iran:** 1♀, Mugan, Persia, Gaur-Ark, 12.06.1927, Bocharnikov.

Remarks: This species was previously recorded from Belokany (Nemkov, 2016) and Nakhchivan (Mokrousov et al. 2019).

Distribution: Russia, Europe, Azerbaijan, Turkey, Iran, Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, China, Azerbaijan (Nemkov 2016, 2017, Mokrousov et al. 2019).

***B. oculata* Panzer, 1801**

Bembix oculata: Nemkov, 2016: 16; Mokrousov et al., 2019: 8.

Bembix oculata oculata: Nemkov, 2017: 222.

Material: Azerbaijan: 3♀♀, Kalinovka Vilyajchay river, 9, 15.07.1936, M. Vinovsky; 1♀, Baku, 07, Akhundova; 1♂, 1♀, Port-Ilyich, distr. Lenkoran, 3.07.1936, M. Vinovsky; 1♀, Talysh, Alekseyevka, 7.08.1936, A. Bogachev; 2♂♂, Ganja, 31.07.1932, in the garden, M. Vinovsky; 2♂♂, 1♀, Ganja, 5, 13.08.1932, in the steppe, M. Vinovsky; 1♂, 1♀, Ganja, 5, 17.08.1933, on the *Eryngium* sp. (Apiaceae), M. Vinovsky; 1♀, Ganja, 5.07.1932, in the garden, M. Vinovsky; 1♀, Prishib. distr., Lenkoran, 08.1923, Bocharnikov; 1♀, Krym, Dorankoy, 9.07.1926, V. N. Kuznetsov; **Iran:** 1♀, Mugan Pers., Gaur-arkh, 12.06.1927, Bocharnikov; 1♂, Mugan Pers., Tazakend, 17.08.1927, Bocharnikov; 1♂, Mugan Pers., Tazakend, 17.08.1927, Bocharnikov.

Remarks: This species was previously recorded from Balaken, Gumbashi (Nemkov 2016) and Nakhchivan (Mokrousov et al. 2019).

Distribution: Russia, Europe, N Africa, Georgia, Azerbaijan, Syria, Jordan, Lebanon, Israel, Saudi Arabia, United Arab Emirates, Oman, Iran, Afghanistan, Pakistan, Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, Kazakhstan, Mongolia, China, Azerbaijan (Nemkov 2016, 2017, Mokrousov et al. 2019).

***B. olivacea* Fabricius, 1787**

Bembix olivacea olivacea: Nemkov, 2017: 222.

Material: Azerbaijan: 11 ♀♀, ost. fl. Samur caucas. or., 23.08.1940, E. Hauser; 1 ♀, Nakhchivan, 25.07.1928; 1 ♀, Sabirabad, 10.08.1939, A. Bogachev; **Iran:** 1 ♀, Mugan Pers., Gaur-arkh, 30.05.1927, Bocharnikov; 1 ♀, Mugan Pers., Tazakend, 17.08.1927, Bocharnikov.

Distribution: Algeria, Azerbaijan, Bulgaria, Canary Islands, Chad, Cyprus, Egypt, Ethiopia, France, Greece, Hungary, Iran, Italy, Israel, Kazakhstan, Libya, Madagascar, Mauritania, Morocco, Portugal, Romania, Russia, Saudi Arabia, Serbia, Slovakia, Somalia, Spain, Sudan, Syria, Tunisia, Turkey, Turkmenistan, Ukraine, Western Sahara, Yemen (Jahantigh et al. 2017).

***B. bidentata* Vander Linden, 1829**

Bembex bidentata: Handlirsch, 1893: 775.

Bembix bidentata: Nemkov, 2016: 9; 2017: 221; Mokrousov et al., 2019: 7.

Material: Azerbaijan: 6 ♂♂, 1 ♀, Kirovabad (now Ganja), Bolchaly, 17, 20.07.1933, M. Vinovsky; 1 ♂, Samukh, Karagashly, 31.05.1935, M. Vinovsky; 1 ♀, Kirovabad (now Ganja), Karayery, 2.06.1932, M. Vinovsky; 6 ♀♀, ost. flav. Samur caucas. or., 23, 26.08.1940, E. Hauser; 1 ♂, 1 ♀, Samukh, Karagashly, 31.05.1935, A. Bogachev; 2 ♀♀, Zakataly, Ali-Bayramly, 2, 26.06.1938, A. Bogachev; 2 ♂♂, Mugan bor. Djafarkhan, 26.06.1925, Alexandrov; 5 ♀♀, Lerik, Kosmalyan, 24.07.1976, H. Aliev; 1 ♀, Kalinovka, Vilyaj-chay river, 15.07.1936, M. Vinovsky; 1 ♀, Ordubad, 2.06.1939, E. Hauser; 1 ♂, Lerik, Kosmalyan, 24.07.1976, H. Aliev; 5 ♀♀, Lerik, Galabyn, 21, 22, 23, 27.07.1976, H. Aliev; 2 ♂♂, Mingachevir, 6.07.1946, on the Salsolium, A. Bogachev; 1 ♂, steppe, on the road to Bolchaly village, 17.07.1933, on the fly, Asia, Kirovabad (now Ganja), M. Vinovsky; 1 ♂, Samukh, Karagashly, 31.05.1935, M. Vinovsky; 1 ♀, Zakataly, Ali-Bayramly, 2.07.1938, A. Bogachev; 1 ♀, station Ganja railway, 19.07.1933, on the Anethum's flowers, M. Vinovsky; 2 ♀♀, Lerik, Gilidara, 17, 27.07.1976, H. Aliev; **Iran:** 1 ♂, Mugan Pers., Kuruchay, 2.06.1927, Bocharnikov;

Remarks: This species was previously recorded from Murut [=Ucbulaq] (Handlirsch 1893), Agdere; Kudula (Nemkov 2016) and Nakhchivan (Mokrousov et al. 2019).

Distribution: South Europe, Turkey, Kazakhstan, Southern Siberia, Iran, Azerbaijan (Handlirsch 1893, Yildirim et al. 2016, Nemkov 2016, Mokrousov et al. 2019).

***B. bicolor* Radoszkowski, 1877**

Bembix bicolor: Mokrousov et al., 2019: 7.

Material: Azerbaijan: 1♂, Ganja, on the fly, 11.07.1933, M. Vinovsky.

Remarks: This species was previously recorded from Nakhchivan (Mokrousov et al. 2019).

Distribution: Afghanistan, Bulgaria, China, Cyprus, Greece, Iran, Iraq, Italy, Israel, Kazakhstan, Kyrgyzstan, Mongolia, Russia (European), Tajikistan, Turkey, Turkmenistan, Uzbekistan, Azerbaijan (Mokrousov et al. 2019, Gadallah, 2020).

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