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**DISTRIBUTION OF SPECIES BELONGING TO THE GENUS
JUCANCISTROCERUS BLÜTHGEN, 1938
(HYMENOPTERA: VESPIDAE: EUMENINAE) OCCURRING
IN THE KYZYLKUM DESERT OF UZBEKISTAN**

Abstract: *this article presents data on the distribution of species belonging to the genus Jucancistrocerus Blüthgen, 1938 occurring in the Kyzylkum Desert of Uzbekistan. According to the results of the study, two species of this genus were recorded in the Kyzylkum Desert. These species are of particular importance, as they are recorded from the Kyzylkum Desert for the first time. At present, a total of three species of the genus Jucancistrocerus are known from the fauna of Uzbekistan. The obtained data serve as an important scientific basis for clarifying the distribution range of representatives of this genus in Uzbekistan, assessing their faunistic composition in desert ecosystems, and conducting further studies on the subfamily Eumeninae.*

Keywords: *Jucancistrocerus, Vespidae, Eumeninae, Kyzylkum Desert, fauna of Uzbekistan.*

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**РАСПРОСТРАНЕНИЕ ВИДОВ РОДА JUCANCISTROCERUS BLÜTHGEN,
1938 (HYMENOPTERA: VESPIDAE: EUMENINAE), ВСТРЕЧАЮЩИХСЯ
В ПУСТЫНЕ КЫЗЫЛКУМ УЗБЕКИСТАНА**

Аннотация: в статье приведены сведения о распространении видов рода *Jucancistrocerus* Blüthgen, 1938, встречающихся в пустыне Кызылкум Узбекистана. По результатам исследования на территории пустыни Кызылкум выявлены два вида, относящиеся к данному роду. Эти виды имеют особое значение, поскольку впервые зарегистрированы для пустыни Кызылкум. В настоящее время в фауне Узбекистана известно всего три вида рода *Jucancistrocerus*. Полученные данные служат важной научной основой для уточнения ареала распространения представителей данного рода на территории Узбекистана, оценки их фаунистического состава в пустынных экосистемах, а также для проведения дальнейших исследований по подсемейству *Eumeninae*.

Ключевые слова: *Jucancistrocerus*, *Vespidae*, *Eumeninae*, пустыня Кызылкум, фауна Узбекистана.

The desert regions of Uzbekistan are of considerable scientific interest due to the diversity of their insect fauna, including species belonging to the order Hymenoptera. Representatives of the subfamily Eumeninae of the family Vespidae are widely distributed in natural ecosystems; however, some of their genera remain insufficiently studied. One such genus is *Jucancistrocerus* Blüthgen, 1938, for which data on species composition and distribution in the desert regions of Uzbekistan are limited. The recording of representatives of this genus in the Kyzylkum Desert provides an opportunity to study the regional entomofauna in greater detail, enrich existing faunistic checklists, and clarify the geographical distribution of the species.

At present, 17 species of the genus *Jucancistrocerus*, belonging to the subfamily Eumeninae of the family Vespidae, are known in the world fauna [2]. Three species of this genus have been recorded in the fauna of Uzbekistan according to the scientific literature [4]. The main objective of this study was to investigate the regional distribution and frequency of occurrence of representatives of the genus *Jucancistrocerus* in the Uzbek part of the Kyzylkum Desert.

Field studies aimed at identifying species of the genus *Jucancistrocerus* and studying their distribution were carried out in May 2025 in several areas of the Ky-

zylkum Desert. The materials were collected from Tomdi and Uchquduq districts of Navoi Region, including the surroundings of Mingbuloq village. During the research, entomological methods recommended by V. Moericke (1951) and other researchers were used [5]. Insect specimens were collected using an entomological net with a diameter of 38–40 cm, yellow plastic Moericke-type traps, Malaise traps, and other standard field methods. Specimens caught with the net were carefully removed using forceps and preserved in 96% ethyl alcohol and in special containers with cotton. Based on the collected entomological materials, collection specimens were prepared in the Entomology Laboratory of the Institute of Zoology of the Academy of Sciences of the Republic of Uzbekistan.

The identification of representatives of the genus *Jucancistrocerus* belonging to the subfamily Eumeninae was carried out using a ZEISS Stemi 305 microscope. Species identification was based on relevant taxonomic and faunistic sources, including the works of van der Vecht & Fischer (1972), Li et al. (2022), and Medetov et al. (2025) [3; 4; 6]. The study sites, habitats, and host plants on which the species were recorded were photographed using a Canon EOS 5D Mark II camera and a Xiaomi 12X smartphone camera. The geographical coordinates of the sampling sites were recorded using the Maps.me application. Based on the obtained data, distribution maps of the species were prepared using ArcGIS Pro software [1].

According to the results of our research, two species belonging to the genus *Jucancistrocerus* were found to occur in the Kyzylkum Desert of Uzbekistan.

Order – Hymenoptera.

Suborder – Apocrita.

Superfamily – Vespoidea.

Family – Vespidae.

Subfamily – Eumeninae.

Genus – *Jucancistrocerus* Blüthgen, 1938.

1. *Jucancistrocerus consimilis* (Morawitz, 1895).

Material examined: 2♀♀, 1♂, Uzbekistan, Navoi Region, Uchquduq District, Mingbuloq village (42°11'36.4»N, 62°48'43.0»E), 10.V.2025 (Fig. 1).

Distribution: Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan.



Fig. 1. Collection specimen prepared from *Jucancistrocerus consimilis*

2. *Jucancistrocerus tachkendensis* (Dalla Torre, 1889).

Material examined: 1♀, 2♂♂, Uzbekistan, Navoi Region, Tomdi District (42°01'42.7»N, 64°47'46.9»E), 9.V.2025 (Fig. 2).

Distribution: China, Afghanistan, Pakistan, Turkmenistan, Kazakhstan, Uzbekistan.



Fig. 2. Collection specimen prepared from *Jucancistrocerus tachkendensis*

During the studies conducted in the Kyzylkum Desert of Uzbekistan, two species of the genus *Jucancistrocerus*, belonging to the subfamily Eumeninae of the family Vespidae, were recorded. The identified species, *J. consimilis* and *J. tachkendensis*, were recorded for the first time from the study area.

Список литературы

1. Видовой состав подсемейства Eumeninae (Hymenoptera: Vespidae) в пустыне Кызылкум в Узбекистане / М.С. Азамов, Б.Р. Холматов, Г.С. Мирзаева, М.А. Ембергенов // Актуальные проблемы биоразнообразия: материалы III Все-

русской научно-практической конференции с международным участием. – Чебоксары, 2026. – С. 9–14.

2. Catalogue of Life Consortium. Catalogue of Life. – 2026. – URL: <https://www.catalogueoflife.org/> (дата обращения: 01.07.2026).

3. Li T.-J. A revision of the genus *Jucancistrocerus* Blüthgen, 1938 from China, with review of three related genera (Hymenoptera: Vespidae: Eumeninae) / T.-J. Li, Y. Bai, B. Chen // *Zootaxa*. – 2022. – Vol. 5105, № 3. – P. 401–420. – DOI: 10.11646/zootaxa.5105.3.4. EDN WJSDHQ

4. The fauna of Vespidae (Hymenoptera) in Uzbekistan / M. Medetov, M. Embergenov, Z. Minazhatdinova [et al.] // *Biosystems Diversity*. – 2025. – Vol. 33, № 2. – P. 252–260. – DOI: 10.15421/012526. EDN YNHFUR

5. Moericke V. Eine Farbfalle zur Kontrolle des Fluges von Blattläusen, insbesondere der Pfirsichblattlaus, *Myzodes persicae* (Sulz.) / V. Moericke // *Nachrichtenblatt des Deutschen Pflanzenschutzdienstes*. – 1951. – Bd. 3. – S. 23–24.

6. van der Vecht J. *Hymenopterorum Catalogus. Pars 8. Palaearctic Eumenidae* / J. van der Vecht, F.C.J. Fischer. – 's-Gravenhage: Dr. W. Junk N.V., 1972. – 199 p.