



UO'K: 595.76

O'ZBEKISTON DAVLAT TABIAT MUZEYI KOLLEKSIYA FONDIDA SAQLANAYOTGAN YUGURON QO'NG'IZLAR (COLEOPTERA: CICINDELIDAE)**ЖУКИ-СКАКУНЫ (COLEOPTERA: CICINDELIDAE), ХРАНЯЩИЕСЯ В КОЛЛЕКЦИИ ГОСУДАРСТВЕННОГО МУЗЕЯ ПРИРОДЫ УЗБЕКИСТАНА****TIGER BEETLES (COLEOPTERA: CICINDELIDAE) PRESERVED IN THE COLLECTION OF THE STATE MUSEUM OF NATURE OF UZBEKISTAN****Mamatova Malohat Maxmadaliyevna¹** ¹O'zbekiston Milliy Universiteti, tayanch doktorant**Mirzayeva Gulnara Saidorifovna²** ²O'zbekiston Respublikasi Fanlar akademiyasi Zoologiya instituti, biologiya fanlari doktori, professor**Annontatsiya**

Ushbu maqolada O'zbekiston Davlat tabiat muzeyi fondida saqlanayotgan yuguron qo'ng'izlar (Coleoptera: Cicindelidae) kolleksiyasini o'rganish natijalari keltirilgan. Tadqiqot 2025-yilning aprel-may oylarida olib borilgan bo'lib, uning doirasida muzeyning entomologik kolleksiyasi tahlil qilingan. Aniqlanishicha, muzey kolleksiyasida Yevropa, Osiyo va Afrikaning turli davlatlaridan keltirilgan yuguron qo'ng'izlarning 34 ta turi, jumladan, 9 ta kenja turi saqlanadi. Maqolada ushbu turlarning 1887-1942 yillar oralig'ida yig'ilgan namunalarini asosida tuzilgan to'liq ro'yxati, ularning materiali va geografik tarqalishi haqida batafsil ma'lumot berilgan. Tadqiqot Markaziy Osiyodagi eng yirik ilmiy muassasalardan biri bo'lgan Tabiat muzeyi kolleksiyalarining jahon tabiiy merosini saqlashdagi va biologik xilma-xillikni o'rganishdagi muhim ahamiyatini ko'rsatib beradi.

Аннотация

В данной статье представлены результаты изучения коллекции жуков-скакунов (Coleoptera: Cicindelidae), хранящейся в фондах Государственного музея природы Узбекистана. Исследование проводилось в апреле-мае 2025 года, и в его рамках была проанализирована энтомологическая коллекция музея. Установлено, что в коллекции музея хранятся 34 вида, включая 9 подвидов, жуков-скакунов из различных стран Европы, Азии и Африки. В статье приведен полный список этих видов на основе образцов, собранных в период с 1887 по 1942 год, а также представлена подробная информация об их материале и географическом распространении. Исследование демонстрирует важное значение коллекций Музея природы, одного из крупнейших научных учреждений Центральной Азии, в сохранении мирового природного наследия и изучении биологического разнообразия.

Abstract

This article presents the results of a study on the tiger beetle (Coleoptera: Cicindelidae) collection held in the State Museum of Nature of Uzbekistan. The research was conducted in April-May 2025, during which the museum's entomological collection was analyzed. It was determined that the museum's collection contains 34 species of tiger beetles, including 9 subspecies, brought from various countries in Europe, Asia, and Africa. The article provides a complete list of these species based on specimens collected between 1887 and 1942, along with detailed information on their material and geographical distribution. The study demonstrates the significant importance of the Nature Museum's collections, as one of Central Asia's largest scientific institutions, in preserving world natural heritage and in studying biological diversity.

Kalit so'zlar: Coleoptera, Cicindelidae, yuguron qo'ng'iz, tabiat muzeyi, entomologik kolleksiya, hudud.**Ключевые слова:** Coleoptera, Cicindelidae, жуки-скакуны, музей природы, энтомологическая коллекция, территория.**Key words:** Coleoptera, Cicindelidae, tiger beetle, nature museum, entomological collection, territory

KIRISH

O'zbekiston davlat tabiat muzeyi yoki Tabiat muzeyi - Markaziy Osiyodagi dastlabki yirik ilm-ma'rifat muassasasi bo'lib, muzeyda zoologiya va botanika, geologiya va geografiya, ilmiy-ma'rifiy fond yoki jamg'arma bo'limlari mavjud. Muzeyda jami 372021 ta eksponat mavjud bo'lib, ularda jumladan, botanika bo'yicha 10496 ta, zoologiya bo'yicha 359642 ta (shundan 355045 tasi hasharotlar), geologiya bo'yicha 1883 ta namunalari saqlanadi [6]. Muzeyning hasharotlar kolleksiyasi fondida saqlanayotgan yuguron qo'ng'izlar (Coleoptera: Cicindelidae) tur namunalari tahlili, jumladan ularning materiali va geografik tarqalishi haqidagi batafsil ma'lumotlar kolleksiyaning noyoblik darajasini yoritib berishda muhim omil hisoblanadi.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Hasharotlar sinfi sayyoradagi eng xilma-xil hayvonlar guruhi bo'lib (Gonzalez, 2019; Noort, 2024), dunyo bo'ylab entomologik kolleksiyalarda saqlanayotgan namunalari ixtisoslashgan va oddiy jamoatchilik ishtirokidagi tadqiqotlar uchun, shuningdek, chuqur ilmiy izlanishlarning zarur obyekti [1,5]. Mutaxassislar fikricha, hozirgi vaqtda mavjud bo'lgan entomologik to'plamlarning aksariyati fundamental hamda amaliy xarakterdagi muammolarni hal qilishda dolzarb ahamiyatga ega bo'lishi mumkin [4].

Bu borada O'zbekiston davlat tabiat muzeyi kolleksiyalari ham biologik xilma-xillikning ma'lum vaqt davomida qay darajada o'zgarib borganligini tahlil qilish uchun muhib obyekt bo'lib xizmat qila oladi [5; 7].

NATIJALAR VA MUHOKAMA

Tabiat tarixi muzeyida saqlanayotgan entomologik kolleksiya namunalari bilan tanishish jarayonida, u yerda saqlanayotgan Cicindelidae oilasiga mansub Yevropa hamda Osiyo mintaqasining turli davlatlaridan keltirilgan 33 ta tur, shu jumladan 10 ta kenja tur namunalari borligini aniqladik. Ushbu turlar 1887-1942 yillar oralig'ida yig'ilgan bo'lib, quyida ularning ro'yxati geografik tarqalishi haqidagi ma'lumotlar bilan keltirilgan.

Oila: Cicindelidae Latreille, 1802

Triba: Cicidelini Latreille, 1802

Avlod: Cicindela Linnaeus, 1758

***Cicindela (Neolaphya) truquii* Gnern.**

Material. Jazoir Demokratik Respublikasi: Zahrez Rarbi, 05.1895, (Vanloger), 2 dona

Tarqalishi: Jazoir, Marokko, Tunis [2,4].

***Cicindela flecsuosa* Fbr.**

Material: Ispaniya: Barselona shahri, Rio Besos daryosi, 07.07, 1 dona **Tunis:** 6.05.1890, 3 dona.

Tarqalishi: Falastin, Fransiya, Ispaniya, Italiya, Jazoir, Libya, Misr, Marokko, Portugaliya, Suriya, Tunis, Shvetsariya [4].

***Cicindela germanica* Z.**

Material: Rossiya: Yaroslavl guberniyasi. 2.05.1897, (A.N.Yakovlev), 6 dona.

Tarqalishi: Albaniya, Armaniston, Avstriya, Belgiya, Buyuk Britaniya, Bolgariya, Belarusiya, Daniya, Eron, Estoniya, Finlandiya, Fransiya, Gruziya, Germaniya, Gretsiya, Ispaniya, Italiya, Irlandiya, Kipr, Latviya, Litva, Shimoliy Makedoniya, Moldova, Niderlandiya, Ozarbayjon, Polsha, Qozog'iston, Rossiya, Ruminiya, Slovakiya, Suriya, Sloveniya, Turkiya, Turkmaniston, Ukraina, Vengriya, Chexiya, Shvetsariya, Yugoslaviya [4].

Cicindela germanica catalonica

Material: Ispaniya: Barselona, Beuth, 1901, 1 dona.

Tarqalishi: Albaniya, Armaniston, Avstriya, Belgiya, Buyuk Britaniya, Bolgariya, Belarusiya, Daniya, Eron, Estoniya, Finlandiya, Fransiya, Gruziya, Germaniya, Gretsiya, Ispaniya, Italiya, Irlandiya, Kipr, Latviya, Litva, Shimoliy Makedoniya, Moldova, Niderlandiya, Ozarbayjon, Polsha, Qozog'iston, Rossiya, Ruminiya, Slovakiya, Suriya, Sloveniya, Turkiya, Turkmaniston, Ukraina, Vengriya, Shimoliy, Chexiya, Shvetsariya, Yugoslaviya [4].

***Cicindela germanica ssp. steveni* Des.**

Material: Rossiya: Kavkaz, (J. Clermont), 2 dona.

Tarqalishi: Albaniya, Armaniston, Avstriya, Belgiya, Buyuk Britaniya, Bolgariya, Belarusiya, Denmark, Eron, Estoniya, Finlandiya, Fransiya, Gruzziya, Germaniya, Gretsiya, Ispaniya, Italiya, Irlandiya, Kipr, Latviya, Litva, Makedoniya, Moldova, Niderlandiya, Ozarbayjon, Polsha, Qozog'iston, Rossiya, Ruminiya, Slovakiya, Suriya, Sloveniya, Turkiya, Turkmaniston, Ukraina, Vengriya, Shimoliy, Chexiya, Shvetsariya, Yugoslaviya [4].

Cicindela germanica ssp. salbina Gor.

Material: Italiya: Rovereto kommunasi, 2 dona

Tarqalishi: Albaniya, Armaniston, Avstriya, Belgiya, Buyuk Britaniya, Bolgariya, Belarusiya, Daniya, Eron, Estoniya, Finlandiya, Fransiya, Gruzziya, Germaniya, Gretsiya, Ispaniya, Italiya, Irlandiya, Kipr, Latviya, Litva, Shimoliy Makedoniya, Moldova, Niderlandiya, Ozarbayjon, Polsha, Qozog'iston, Rossiya, Ruminiya, Slovakiya, Suriya, Sloveniya, Turkiya, Turkmaniston, Ukraina, Vengriya, Shimoliy, Chexiya, Shvetsariya, Yugoslaviya [4].

Avlod: *Cylindera Westwood, 1831*

Cicindela paludosa Duf.

Material: 1 dona

Tarqalishi: Ispaniya, Fransiya [4].

Avlod: *Neolaphyra Bedel, 1895*

Cicindela lyoni Vig.

Material: Tunis, 1 dona

Tarqalishi: Libya, Tunis [4].

Avlod: *Cylindera Westwood, 1831*

Cicindela trisignata Dej.

Material: 2 dona

Tarqalishi: Albaniya, Belgiya, Bolgariya, Fransiya, Gretsiya, Italiya, Ispaniya, Jazoir, Libya, Malta, Morokko, Niderlandiya, Portugaliya, Rossiya, Ruminiya, Tunis, Turkiya, Ukraina [4].

Cicindela elisae Motsch.

Material: O'zbekiston: Samarkand. Mirzacho'l, (Mathiessen) 3 dona.

Tarqalishi: Janubiy Koreya, Mo'g'iliston, Rossiya, Tayvan, Vetnam, Xitoy, Shimoliy Koreya [4].

Avlod: *Cephalota Dokhtouroff, 1883*

Cicindela luctuosa Dej.

Material: 2 dona

Tarqalishi: Marokko [4].

Cicindela circumdata Dej.

Material: 2 dona

Tarqalishi: Bolgariya, Moldova, Rossiya, Ruminya, Ukraina, Vengriya, Yugoslaviya [4].

Cicindela elegans Fisch.

Material: 1 dona

Tarqalishi: Bolgariya, Moldova, Qozog'iston, Rossiya, Ruminiya, Turkmaniston, Ukraina, Vengriya [4].

Cicindela elegans ssp. stecmatochora (Fisch)= seidletri

Material: 15.06.1908, 3 dona

Tarqalishi: Borneo, Indoneziya, Malayziya, Singapur, Tayland [4].

Avlod: *Cylindera Westwood, 1831*

Cicindela letterata Suls (lugdunensis)

Material: 2 dona.

Tarqalishi: Avstriya, Belgiya, Fransiya, Germaniya, Italiya, Shvetsariya [4].

Avlod: *Cicindela Linnaeus, 1758*

Cicindela soluta Dej.

Material: Vengriya: Budapesht, 1dona.

Tarqalishi: Avstriya, Bolgariya, Moldova, Rossiya, Ruminiya, Slovakiya, Qozog'iston, Ukraina, Vengriya, Chexiya, Yugoslaviya [4].

Cicindela sylvatica* L.*Material:** 14.1929, 4 dona**Tarqalishi:** Albaniya, Andorra, Avstriya, Belarusiya, Belgiya, Bosniya va Gersogovina, Buyuk Britaniya, Daniya, Estoniya, Finlandiya, Fransiya, Germaniya, Irlandiya, Ispaniya, Latviya, Litva, Lix-tenshteyn, Lyuksenburg, Mo'g'iliston, Niderlandiya, Qozog'iston, Rossiya, Ruminiya, Slovakiya, Slo-vaniya, Turkiya, Ukraina, Shvetsiya [4].***Cicindela japana* Motsch.****Material: Yaponiya:** 1 dona.**Tarqalishi:** Janubiy Koreya, Rossiya, Shimoliy Koreya, Yaponiya [4].***Cicindela sylvicola* Dej.****Material:** 13.05.1887, 5 dona**Tarqalishi:** Avstriya, Belgiya, Bosniya va Gersogovina, Bolgariya, Fransiya, Germaniya, Itali-ya, Lyuksemburg, Moldova, Polsha, Ruminiya, Rossiya, Slovaniya, Serbiya, Ukraina, Vengriya, Xorva-tiya, Chexiya, Shvetsariya [4].***Cicindela gallica* Brul.****Material:** 10.07.1896, 3 dona**Tarqalishi:** Avstriya, Fransiya, Germaniya, Italiya, Sloveniya, Shvetsariya [4].***Cicindela hybrida* L.****Material:** 12.05.1894, 5 dona**Tarqalishi:** Avstriya, Bolgariya, Belgiya, Belarusiya, Bosniya va Gersogovina, Estoniya, Gretsiya, Germaniya, Fransiya, Finlandiya, Irlandiya, Latviya, Litva, Makedoniya, Moldova, Norvegiya, Niderlandiya, Polsha, Qozog'iston, Ruminiya, Rossiya, Slovakiya, Sloveniya, Ukraina, Vengriya, Xorvatiya, Shvetsiya, Yugoslaviya [4].***Cicindela riparia* Dej.****Material:** 2 dona**Tarqalishi:** Avstriya, Belarusiya, Belgiya, Buyuk Britaniya, Bolgariya, Daniya, Estoniya, Fin-landiya, Fransiya, Germaniya, Italiya, Irlandiya, Ispaniya, Latviya, Lix-tenshteyn, Litva, Lyuksemburg, Norvegiya, Niderlandiya, Polsha, Rossiya, Slovakiya, Sloveniya, Ukraina, Xorvatiya, Chexiya, Shvetsi-ya, Shvetsariya, Yugoslaviya [4].***Cicindela riparia ssp. lagunensis*****Material: Ispaniya:** Madrid, (E. Reitter), 1 dona.**Tarqalishi:** Belgiya, Fransiya, Finlandiya, Norvegiya, Sibir, Shvetsiya [4].***Cicindela sahlbergi* Fisch.****Material:** Rossiya, 1 dona**Tarqalishi:** Eron, Ozarbayjon, Qozog'iston, Qirg'iziston, Rossiya, Ukraina [4].***Cicindela maritima* Dej.****Material: Rossiya.** Yaroslavl viloyati, (A.I. Yakovlev), 3 dona.**Tarqalishi:** Belgiya, Buyuk Britaniya, Daniya, Germaniya, Fransiya, Finlandiya, Latviya, Nider-landiya, Moldova, Polsha, Portugaliya, Rossiya, Ruminiya, Ukraina, Xorvatiya [4].***Cicindela nitida* Zicht. (*Tricolor* Ad)****Material:** 07. 1910, 5 dona**Tarqalishi:** Janubiy Koreya, Mo'g'iliston, Rossiya, Xitoy.***Cicindela nitida ssp. Coerulea pall.*****Material: Rossiya:** Oltoy Respublikasi, 3 dona.**Tarqalishi:** Janubiy Koreya, Mo'g'iliston, Rossiya, Xitoy [4].***Cicindela tricolor ssp. Tenufasciata*****Material: Rossiya:** Sibir, 1 dona**Tarqalishi:** Janubiy Koreya, Mo'g'iliston, Rossiya, Xitoy [4].***Cicindela kraatzi*****Material: Rossiya:** Saratov viloyati, 25.04.1898, (V.A. Killer), 6 dona**Tarqalishi:** Bolgariya, Moldova, Qozog'iston, Rossiya, Ruminiya, Ukraina [4].***Cicindela campestris ssp. Disertorum***

BIOLOGIYA

Material: Rossiya: Kavkaz, 17.05.1910; 18.06.1919. 2 dona

Tarqalishi: Armaniston, Eron, Gruzija, Ozarbayjon, Rossiya, Turkiya [4].

Cicindela campestris* ssp. *Pseudomaroccana

Material: 1 dona

Tarqalishi: Fransiya, Italiya, Ispaniya, Portugaliya [4].

***Cicindela lunulata* ssp. *Barbara* Lop.**

Material: Tunis: Djerba oroli, 25.04.1942, 1 dona.

Tarqalishi: Italiya, Ispaniya, Jazoir, Libya, Marokko, Tunis, Sitsiliya [4].

Avlod: *Cephalota* Dokhtouroff, 1883.

***Cicindela maura* L.**

Material: Tanzaniya: Sanjaranda, 26.06.1916, 3 dona

Tarqalishi: Ispaniya, Italiya, Jazoir, Morocco, Portugaliya, Tunis, Tanzaniya [3,4].

***Cicindela concolor* Dej.**

Material: 1 dona

Tarqalishi: Gretsiya, Kipr, Suriya, Turkiya [4].

O'zbekiston davlat tabiat muzeyida saqlanayotgan yuguron qo'ng'izlar namunalari



*Cicindela
maritima
Dej.*

*Cicindela
nitida* Hbst.
(*tricolor* Ld.)

*Cicindela
nitida* subsp.
corulea Pall.

*Cicindela
tricolor* v. *fe-
nefasciata*

*Cicindela
kraatzi*



*Cicindela
campestris
v. discretorum*



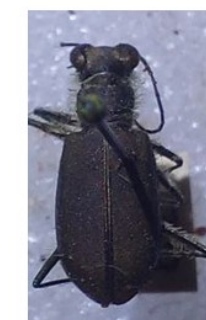
*Cicindela
campestris
v. pseudoma-
roccana*



*Cicindela
lunulata
v. barbara* Lop.



*Cicindela
maura* L.



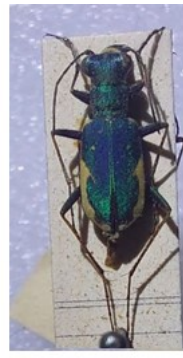
*Cicindela
concolor* Dej.



Cicindela Truognii Gubrn.



Cicindela flecostriata Fbr.



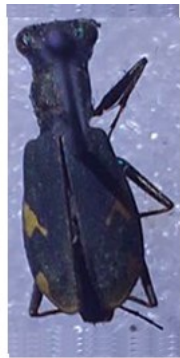
Cicindela germanica L.



Cic. germanica var. *catalonica*



Cicindela germanica v. *stevini* Dej.



Cicindela circumdata v. *subnitida* Gz.



Cicindela paludosa Duf.



Cicindela lyoni Vig.



Cicindela trisignata Dej.



Cicindela elisae Motsch.



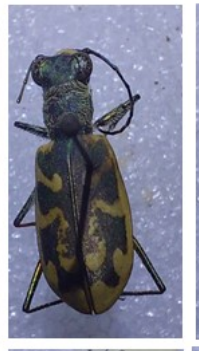
Cicindela luctuosa Dej.



Cicindela circumdata Dej.



Cicindela elegans Fischer.



Cicindela elegans (C. *pallens*) Fischer (C. *seidlitzii* Kr.)



Cicindela litterata Suls. (Cugdunensis)



Cicindela soluta Dej.



Cicindela silvatica L.



Cicindela japana Motsch.



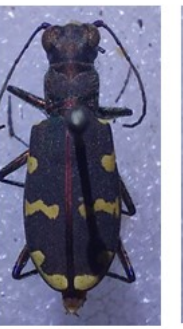
Cicindela silvicola Dej.



Cicindela gollada Brul.



Cicindela hybrida L.



Cicindela riparia Dej.



Cicindela riparia a. *lagunensis*



Cicindela sahlbergi Fisch.

XULOSA

Entomologik kolleksiyalar biologik xilma-xillikni aniqlash va turlarni saqlash uchun katta ahamiyatga ega bo'lib, ular dunyoning turli burchaklaridan turlarning morfologiyasini (hatto genetikasini) o'rganish va solishtirish, ularning tabiiy yashash joylarida endi yo'q bo'lishi mumkin bo'lgan ko'plab noma'lum turlarni tasniflash ishlarini amalga oshirish maqsadida yig'ilgan. Shuningdek entomologiyaga oid turli nazariyalarini taklif qilish imkonini ham beradi. To'plamlar boy tadqiqotlar manbai va boshqa barcha ilmiy fanlar uchun muhim ma'lumotnoma bo'lib, geografik, biologik, zoologik hamda ekologik bilimlar orqali biologiya haqida samarali muloqot qilish usulini taqdim etadi. Tabiat muzeyi kolleksiyalari jahon tabiiy merosini kelajak avlodlar o'rganishi va bahramand bo'lishi uchun saqlanib kelinayotgan yagona joy bo'lsa-da, bu to'plamlar hali to'liq ravishda o'rganib chiqilmagan.

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