

Fauna of the Subfamily Ichneumoninae (Hymenoptera, Ichneumonidae) of Azerbaijan With New Records

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Abstract: This paper presents information about 103 species of the subfamily Ichneumoninae. 10 species of them were included in the Azerbaijan fauna, 25 in the Caucasian fauna and 65 in the Transcaucasian fauna for the first time. They belong to 6 tribes and 36 genera. Their distribution, hosts and biotopes were noted.

Key Words: Ichneumoninae, Ichneumonidae, Hymenoptera, tribe, Azerbaijan, new records.

Azerbaycan'ın Ichneumoninae (Hymenoptera, Ichneumonidae) Faunası Yeni Tespitlerle

Özet: Azerbaycan'da ichneumoninae altfamilyasından 6 tribüs ve 36 cinse ait 103 tür tespit edilmiştir. Bunlardan, 10 tür Azerbaycan, 25 tür Kafkasya ve 65 Transkafkasya faunası için yeni kayıttır. Saptanan türlerin biyotopları, konukçuları ve dağılımları belirlenmiştir.

Anahtar Sözcükler: Ichneumoninae, Ichneumonidae, Hymenoptera, New records, Azerbaycan.

Introduction

Studies on the fauna of parasitic hymenopters of different regions are of great significance for effective pest control. In this respect, members of the subfamily Ichneumoninae are of great practical scientific interest. There have been very few studies on the fauna of ichneumonids in Azerbaijan (1–5).

This paper presents information on Ichneumoninae. Representatives of this subfamily are endoparasites on Lepidoptera (noctuids, geometrids and other moths). Although they are of average size, large and small samples have also been obtained (6).

Species of the tribe Phaeogenini are known to parasitize mainly Microlepidoptera, the others parasitize Macrolepidoptera. Most of the species of the given group overwinter in preimaginal stages whilst the females overwinter in tribe Phaeogenini and Ichneumonini. Adults fly out from the host pupae after completion of development (7).

Specimens were collected from different regions of the country in order to determine the fauna of Ichneumoninae of Azerbaijan.

Material and Methods

Mounted collections of the material and observations on the bioecological peculiarities of ichneumonids were

made in different regions of Azerbaijan over the last 20 years (1970–1990).

Material collections and census of ichneumonids were carried out using widely accepted methods (8). Adult ichneumonids were collected with an insect net from various biotopes and stages of development of the hosts.

A number of keys (9, 6, 10, 11, 7, 12, 13) were used for the identification of species.

The cameral treatment of the collected material was carried out in the laboratory of the entomophaga and theoretical basis of the biological methods of plant protection of the Institute of Zoology, Academy of Sciences of Azerbaijan. Apart from the examined samples of private collections and the ichneumonid collection of Institute of Zoology at the Academy of Sciences of Azerbaijan, the collection of Zoological Institute of Academy of Sciences of Russia were also analyzed.

Results

Subfamily ICHNEUMONINAE

Tribe PHAEOGENINI

Genus RHEXIDERMUS FÖRSTER

1. *Rhexidermus truncator* Förster, 1889

Zakatala, 19.06.1961, 2 ♂♂; Goy–Chay, v. Poty, 18.04.1964, ♀1, cotton field; Goy–Chay, v. Poty,

18.05.1964, 1 ♂, motley grass; Goy–Chay, v. Poty, 17.07.1964, 1 ♀; Goy–Chay, v. Poty, 26.06.1964, ♂ 1, motley grass near cotton field; v. Poty, Goy–Chay, 05.09.1964, 1 ♀, cotton field; Goy–Chay, v. Poty, 26.09.1964, 1 ♀, cotton field; Agdam, 19.06.1974, 2 ♀♀, cotton field.

Host: *Laspeyresia strobiliella* Linnaeus (Tortricidae), *Hyphantidium terebellum* Zincken (Phycitidae), *Erigaster fanestris* Linnaeus (Lasiocampidae), *Leucoma salicis* Linnaeus (Lymantridae).

Distribution: Middle Asia (Fergana), Western Europe, the Canary Islands (13).

2. *Rhexidermus nigricollis* Wesmael, 1844

V. Gachresh, Kuba, 18.09.1962, 1 ♀, fruit garden; v. Hadjialibekly, Khachmaz, 11.09.1962, 1 ♀, fruit garden; Kuba, 06.07.1974, 1 ♀, 1 ♂, fruit garden.

Host: *Alucita galactodactyla* Hübner (Pterophoridae)

Distribution: The whole of the European part of the former USSR, South–west of Siberia, North and Central Europe, Romania (13).

3. *Rhexidermus tineidarum* Giraud, 1871

V. Vladimirovka, Kuba, 18.07.1978, 4 ♀♀, motley grass, 2 ♀♀; Kusar, 20.07.1978, 2 ♀♀, fruit garden.

Host: *Pseudotemelia panzerella* Stephens (Decopharidae), *Talaeporia palitella* Ochsenbeimer, *Talaeporia tubulosa* Ratzeburg (Psychidae), *Yponomeuta malinellus* Linnaeus (Yponomeutidae).

Distribution: Sankt–Peterburg, Central Europe, Italy, Romania (13).

Genus *COLPOGNATHUS* WESMAEL

4. *Colpognathus celerator* Gravenhorst, 1844 V. Gachresh, Kuba, 18.08.1972, 1 ♀, motley grass; v. Karvan, Yardimly, 14.09.1971, 1 ♀, fruit garden; Nakhicevan, centre, 31.06.1975, 1 ♀, motley grass.

Host: *Pennisetia hylaeiformis* Laspeyres (Sessidae), *Ostrinia nubilalis* Hübner (Pyraustidae).

Distribution: The whole of the European part of the former USSR, Western Europe (13).

Genus *CENTETERUS* WESMAEL

5. *Centeterus confector* Gravenhorst, 1859

Kusar, 14.07.1974, 1 ♂, motley grass.

Host: *Archanara geminipuncta* Haworth (Noctuidae).

Distribution: From Baltic to Preurals, Caucasus, Western Europe, Northern China (13).

6. *Centeterus major* Wesmael, 1844

V. Digah, Kuba, 16.07.1974, 2 ♂♂, motley grass, fruit garden.

Host: *Peninsetia hylaeiformis* Laspeyres (Sessidae), *Archanara geminipuncta* Haworth (Noctuidae).

Distribution: Western Europe (13).

7. *Ceteterus opprimator* Gravenhorst, 1844

Zakatala, 20.07.1974, ♂ 1, motley grass.

Host: *Blastotere bergiella* Ratzeburg (Argyresthiidae).

Distribution: Western Europe (13).

Genus *HERPESTOMUS* WESMAEL

8. *Herpestomus arridens* Gravenhorst, 1891

Kusar, 20.06.1972, 2 ♂♂, motley grass.

Distribution: Transcaucasus, Western Europe (13).

9. *Herpestomus brunnicornis* Gravenhorst, 1891

Kuba, 24.06.1969, 1 ♀, fruit garden; v. Vladimirovka, Kuba, 24.06.1974, 4 ♀♀, raised from *Hyponomeuta molinella* Zeller; Kusar, 26.06.1974, 8 ♂♂, fruit garden, raised from *Hyponomeuta molinella* Zeller.

Host: *Yponomeuta padellus* Linnaeus, *Yponomeuta coonatellus* Hübner, *Yponomeuta malinellus* Hübner (Yponomeutidae), *Plutella maculipennis* Curtis (Plutellidae).

Distribution: The whole of the European part of the former USSR, Khabarovsk, Western Europe (13).

Genus *DIADROMUS* WESMAEL

10. *Diadromus subtilicornis* Gravenhorst, 1858

Kuba, 11.06.1961, 2 ♂♂, fruit garden, white mustard.

Host: *Laspeyresia corollona* Hübner (Tortricidae), *Plutella maculipennis* Curtis (Plutellidae).

Distribution: The whole of the European part of the former USSR, Southwest Siberia, Western Europe, North America (13).

11. *Diadromus quadriguttatus* Gravenhorst, 1889

Kusar, 27.07.1974, 1 ♂, motley grass, fruit garden.

Host: *Yponomeuta cognatellus* Hübner (Yponomeutidae).

Distribution: Khabarovsk territory, Kamchatka, Northern and Central Europe, Romania (13).

12. *Diadromus ustalatus* Holmgren, 1889

Kusar, 24.06.1974, 1 ♀, fruit garden.

Distribution: Western Caucasus, Northern and Central Europe, Romania (13).

13. *Diadromus varicolor* Wesmael, 1844

Kuba, 24.06.1974, 1 ♂, 1 ♀, fruit garden.

Distribution: Caucasus, Northern and Central Europe, England, Romania (13).

Genus *THYRAEELLA* HOLMGREN

14. *Thyraeella collaris* Gravenhorst, 1889

Gachresh, Kuba, 12.07.1962, 1 ♂; v. Gachresh, Kuba, 02.04.1960, 1 ♀; v. Gachresh, Kuba, 15.05.1963, 1 ♀; v. Gachresh, Kuba, 15.05.1963, 1 ♀; Terter, 05.07.1974, 2 ♂ ♂.

Host: *Acrolepia assectella* Zincken (Acrolepiidae), *Plutella maculipennis* Curtis (Plutellidae).

Distribution: Central Asia (Turkmenia), Southwest Asia, West Europe, the Canary Islands (13).

Genus *PHAEOGENES* WESMAEL

15. *Phaeogenes heterogonus* Holmgren, 1889

V. Khil, Kusar, 27.07.1978, 1 ♀, motley grass, forest; v. Gachresh, Kuba, 26.07.1978, 1 ♀, motley grass, fruit garden.

Host: *Pandemis cerasana* Hübner (Tortricidae).

Distribution: Northern Caucasus (Stavropol territory, Tiberia forest reserve); Northern and Central Europe (13).

16. *Phaeogenes melanogonus* Gmelin, 1829

Kazakh region, 24.07.1975, 1 ♀, motley grass.

Host: *Depressaria daucebla* Den. et Schiffermüller (Decophoridae), *Sparganothis pilleriana* Den. et Schiffermüller (Tortricidae).

17. *Phaeogenes invisor* Thunberg, 1844.

Kazakh, 17.08.1974, 2 ♀ ♀, motley grass.

Distribution: The whole of the European part of the former USSR, Armenia, Northern and Central Europe, Romania (12).

Raised from *Tortrix viridana* Linnaeus (Tortricidae), *Yponomeuta padellus* Linnaeus, *Yponomeuta evonymella* Linnaeus (Yponomeutidae), *Hylana fasciaria* Linnaeus (Geometridae).

18. *Phaeogenes ophthalmicus* Wesmael, 1844

Kusar, 17.09.1973, 2 ♀ ♀; Lenkoran, 16.10.1972, 1 ♀.

Tribe PLATYLABINI

Parasites of Geometridae, sometimes of Drepanidae, as an exception Sphingidae (caterpillars are parasitized). Overwinters in immature stage.

Distribution: Holarctic, Oriental and Ethiopia territory (13).

Genus *ECTOPIUS* WESMAEL

19. *Ectopius rubellus* Gmelin, 1896

Kusar, 12.07.1975, 1 ♀, motley grass, fruit garden.

Host: *Parizoma bifasciata* Hübner (Geometridae).

Distribution: Central Caucasus, Kamchatka, Western Europe (13).

Genus *CYCLOLABUS* HEINRICH

Distributed in Holarctic and mountains of Oriental oblast. There are 3 species in Europe.

* 20. *Cyclolabus pactor* Wesmael, 1844

V. Pensar, Astara, 21.04.1972, 1 ♂, motley grass.

Distribution: Southwestern Europe (13).

21. *Cyclolabus nigricollis* Wesmael, 1844

Kazakh, 26.07.1972, 1 ♀.

Host: *Lucita pentadaetyla* Linnaeus (Pterophoridae).

Distribution: Western Europe, Caucasus (13).

Genus *PLATYLABUS* WESMAEL

Distributed mainly in Holarctic and Oriental oblasts (28 species).

22. *Platylabus rufus* Wesmael, 1844

Kazakh, 26.07.1974, 1 ♀, motley grass.

Host: *Cabera pusaria* Linnaeus (Geometridae).

Distribution: Caucasus, Western Europe, Japan (13).

23. *Platylabus tricingulatus* Gravenhorst, 1820 (= *maurus* Bertoumieu)

Kusar, 24.06.1974, 1 ♂, fruit garden.

Distribution: Caucasus, Central Asia, Western Europe (13).

24. *Platylabus pedatorius* Fabricius, 1844

Kazakh, 24.07.1974, 1 ♀, motley grass.

Host: *Erannis defolaria* Clerck, *Eupithecia* spp. (Geometridae).

Distribution: Caucasus, Eastern and Western Europe (13).

* Species with asterisk were noted early.

Genus *HYPOMECUS* WESMAEL

25. *Hypomecus quadriannulatus* Gravenhorst, 1891

Masally, 26.06.1965, 3 ♂♂.

Host: *Larentia, Cyclophora, Scopula* (Geometridae).

Distribution: Kuril Islands, Western Europe, Burma North America (13).

Tribe EURYLABINI

Genus *EURYLABUS* WESMAEL

Parasite great part of Noctuidae, Notodontidae, Lithosiidae. Parasitize caterpillars.

Distribution in Palearctic and Mountains of Oriental oblasts and South Africa (13).

In Europe 3 species.

26. *Eurylabus torvus* Wesmael, 1844

Kuba, 27.07.1968, 2 ♀♀, motley grass, near the forest.

Host: *Atolmis rubricollis* Linnaeus (Lithosiidae).

27. *Eurylabus tristis* Gravenhorst, 1853

Kuba, 27.07.1979, 1 ♂, 1 ♀, motley grass, glade; Agdam, 12.07.1971, 1 ♀, motley grass.

Host: *Panolis flammea* Den. et Schiffermüller, *Hadena bicruris* Hufnagel, *Hadena porlexa* Den. et Schiffermüller (Noctuidae).

Distribution: Kazakhstan, Central Asia, Western Europe (13).

Genus *PROBOLUS* WESMAEL

Parasite Noctuidae. Distribution in Holarctic and Mountains of Burma. In Europe 3 species.

28. *Probolus concinnus* Wesmael, 1820

Kusar, 17.06.1968, 2 ♀♀, fruit garden, motley grass; Shambir, 17.07.1974, 1 ♀, motley grass.

Distribution: Caucasus, Central Asia, Siberia, Western Europe (13).

Tribe LISTRODROMINI

Genus *ANISOBAS* WESMAEL

29. *Anisobas cingulatorius* Gravenhorst, 1844

V. Hadjialibekly, Khachmaz, 01.08.1962, 3 ♂♂, motley grass; Kuba, 11.08.1962, 2 ♂♂, fruit garden, motley grass.

Host: *Callophrys rubi* Linnaeus (Lycaenidae).

Distribution: Southern Caucasus, Central Asia, Kazakhstan, Primorie, Iran (13).

Tribe ICHNEUMONINI

The biggest and most varied group of the subfamily Ichneumoninae with worldwide distribution. Parasites of different macrolepidoptera, mainly Geometridae, Noctuidae, Archiidae, Liparidae etc. Sometimes Nymphalidae, Sutiridae.

Genus *CRATICHNEUMON* THOMSON

30. *Cratichneumon albiscuta* Thomson, 1893

(*apparitor* Berthomien, *nigridens* Habermehl).

Lenkoran, 22.06.1978, 1 ♂, motley grass; Kuba, 20.07.1978, 1 ♂, motley grass, fruit garden.

Distribution: Southwestern Caucasus, Primorie, Western Europe (13).

31. *Cratichneumon coruscator* Linnaeus, 1903 (*coruscator* Linnaeus)

Kusar, 26.06.1972, 1 ♂; Kuba, 26.06.1972, 1 ♀, fruit garden.

32. *Cratichneumon fabricator* Fabricius, 1893

Kusar, 26.06.1972, 1 ♀, motley grass.

Host: *Semiothisa liturata* Clerck, *Bupalus piniarius* Linnaeus (Geometridae), *Tetthea* or Den. et Schiffermüller (Tettheidae), *Notodonta dromedarius* Linnaeus (Notodontidae), *Dasychira pudibunda* Linnaeus (Lymantridae), *Panolis flammea* Den. et Schiffermüller (Noctuidae).

Distribution: Caucasus, Siberia as far as Primorie, Western Europe (13).

33. *Cratichneumon culex* Müller, 1893

(= *annulator* Fabricius)

Goychay, 27.07.1965, 1 ♀.

Host: *Semiothisa liturata* Clerck, *Bupalus piniarius* Linnaeus (Geometridae), *Panolis flammea* Den. et Schiffermüller (Noctuidae).

Distribution: Southern Caucasus, Western Europe (13).

34. *Cratichneumon rufifrons* Gravenhorst, 1893

Agdam, 26.07.1974, 1 ♀.

Host: *Atolmis rubricollis* Linnaeus (Lithosiidae), *Electrophaes corylata* Thunberg (Geometridae).

Distribution: Caucasus, Siberia as far as Primorie, Western Europe (13).

35. *Cratichneumon semirufus* Gravenhorst, 1903

Kazakh, 24.07.1974, 1 ♀.

Distribution: Caucasus, Siberia, Western Europe (13).

Genus *PLATYLABOPS* HEINRICH

Parasites of Geometridae, parasitize pupae. Distribution in Holarctica and mountains of the Oriental oblast.

36. *Platylabops corniculus* Wesmael, 1894

V. Digah, Kuba, 24.06.1968, 1♀, fruit garden; Zakatala, 24.07.1968, 1♀, motley grass, forest.

Distribution: Caucasus, Central Asia, Western Europe (13).

Genus *MELANICHNEUMON* THOMSON

6 species in Europe. Hosts are unknown.

37. *Melanichneumon glaucatoriops* Heinrich, 1956

Kusar, 26.07.1976, 1♀, motley grass.

Distribution: Caucasus, Western Europe (13).

Genus *VIRGICHNEUMON* HEINRICH

Mainly parasites of Noctuidae (parasitize pupae of 13 species).

38. *Virgichneumon monostagon* Gravenhorst, 1893

Goychay, 26.07.1965, 1♀; Agdam, 21.06.1976, 1♂, 1♀.

Host: *Archanara sparganii* Esper, *Archanara gemini-puncta* Haworth (Noctuidae), *Spilosoma lubricipeda* Linnaeus (Arctiidae).

Distribution: Southern Caucasus, Western Europe (13).

39. *Virgichneumon maculicauda* Perkins, 1930

(= *perscrutator* Wesmael)

Goychay, 26.07.1967, 1♂.

Host: *Hypocrita jacobaeae* Linnaeus (Arctiidae).

Distribution: Southwestern Caucasus, Central Asia, Western Europe (13).

40. *Virgichneumon albosignatus* Gravenhorst, 1893

Kazakh, 26.07.1974, 1♀, motley grass, Kusar, 02.06.1974, 1♂, 1♀.

Host: *Abraxas grassollarita* Linnaeus (Geometridae).

Distribution: Caucasus, Central Asia, Western Europe, Kazakhstan (13).

41. *Virgichneumon digrammus* Gravenhorst, 1893 (*nedicoxa* Thomson, *balearicus* Kriechbaumer)

Ismaily, 26.07.1975, 1♂.

Distribution: Caucasus, Kazakhstan, Western Siberia, Western Europe (13).

42. *Virgichneumon callicerus* Gravenhorst, 1893

Tertter, 25.08.1971, 1♂, forest; Agsu, 25.05.1973, 1♂, forest; Astara, 25.05.1972, 1♂, forest.

Host: *Callophrys rubi* Linnaeus (Lycaenidae).

Distribution: Caucasus, Central Asia, Kazakhstan, Siberia, Western Europe (13).

Genus *BARICHNEUMON* THOMSON

Mainly parasites of Geometridae. The most species in Holarctic—17 species.

43. *Barichneumon peregrinator* Linnaeus, 1903

Shamkir, 26.09.1974, 1♀, motley grass.

Distribution: Caucasus, Western Europe (13).

44. *Barichneumon bilunulatus* Gravenhorst, 1903

Zakatala, 12.06.1973, 1♂, tea plantation.

Common parasite of Geometridae and Noctuidae in conifers.

Distribution: Kazakhstan, Siberia, Western Europe (13).

45. *Barichneumon albicaudatus* Fonscolombe, 1903 (= *angustatus* Wesmael)

Zakatala, 24.05.1974, 1♀; Agsu, 29.05.1974, 1♀.

Distribution: Southeastern Caucasus, Central Asia, Kazakhstan, Western Europe (13).

46. *Barichneumon incubitor* Zetterstedt var. *Caucasica*, 1893.

Kuba, 20.06.1961, 1♀, spurge

Genus *STENOBARICHNEUMON* HEINRICH

Parasites of Geometridae parasitize pupae. Holarctic in Europe—6 species.

47. *Stenobarichneumon basiglyptus* Kriechbaumer, 1888

Kuba, 25.07.1961, 2♂♂, spurge; Khachmaz, 16.07.1961, 1♂, forest; Kuba, 04.10.1962, 1♂, motley grass; Shamkhor, 06.08.1974, 2♂♂, fruit garden.

Distribution: Western Europe (13).

Genus *CRYTEA* CAMERON

Biology unknown. Ethiopia and Oriental oblasts. 2 species in Europe.

48. *Crytea sanguinator* Rossi, 1903
Ismailly, 25.10.1960, 1♀, motley grass
Host: *Agonopterix umbellana* Stephens (Oecophoridae).
Distribution: Western Europe (13).
Genus *VULGICHNEUMON* HEINRICH
Parasites of Noctuidae. Parasitize pupae. Holarctica, Oriental, Ethiopia oblast. In Europe 5 species.
49. *Vulgichneumon bimaculatus* Schrank, 1893
Kusar, 26.06.1968, 1♀, motley grass, fruit garden.
Host: *Notua fimbriata* Schreber (Noctuidae), *Dasychria pudibauda* Linnaeus (Lymantridae).
Distribution: Siberia, Iran (13).
50. *Vulgichneumon suavis* Gravenhorst, 1893
(*lepidus* Gravenhorst)
V. Kosmolian, Leric, 17.0.1978, 1♀, motley grass; Lenkoran, 10.06.1980, 1♀, motley grass, near the forest.
Genus *SYSPASIS* TOWNES (*Stenichneumon*, part, *Ichneumon*, part).
Parasites of various Heterocera. Parasitize larvae Holarctic and Oriental oblast. In Europe 11 species.
51. *Syspasis rufinus* Gravenhorst, 1893
V. Boradigah, Masally, 18.06.1980, 1♀, motley grass, near a forest.
Host: *Thalera fimbrialis* Scopoli, *Hemithea aestivaria* Hübner, *Selenia bilunaria* Esper (Geometridae).
Distribution: Kazakhstan, Central Asia, Western Europe (13).
52. *Syspasis scutellator* Gravenhorst, 1893
Kazakh, 12.07.1974, 1♀, motley grass, near a forest.
Host: *Euproctis chrysoorrohe* Linnaeus (Lymantriidae), *Abraxas grossularia* Linnaeus (Geometridae), *Panolis flammea* Den. et Schiffermüller (Noctuidae).
Distribution: Sankt–Peterburg, Perm, Central Asia (13).
Genus *LYMANTRICHNEUMON* HEINRICH
53. *Lymantrichneumon disparis* Poda, 1903
Kuba, 26.06.1974, 1♀.
Host: *Lymantria dispar* Linnaeus, *Orgyia antigrua* Linnaeus.
Distribution: Caucasus, Central Asia, Siberia, as far as Primoria, Western Europe, China, Korea, Japan (13).
Genus *ICHNEUMON* LINNAEUS (*Pterocormus* Förster)
Mainly parasites of Noctuidae, sometimes the other Lepidoptera. The most species parasitize pupae.
54. *Ichneumon xanthorius* Förster, 1771
Lenkoran, 27.06.1971, 1♂, 1♀, motley grass, forest.
Host: *Polyphaemis sericata* Esper, *Hadena irregularis* Hufnagel (Noctuidae).
Distribution: Caucasus, Kazakhstan, Central Asia, Primorie, Western Europe, Iran, Mongolia (13).
55. *Ichneumon illuminatorius* Gravenhorst, 1829 (*zonalis* Gravenhorst):
Masally, 19.06.1971, 2♂♂, motley grass; Kusar, 12.06.1974, 1♂, 1♀, motley grass, fruit garden.
Host: *Hoploclidius ambigua* Den. et Schiffermüller (Noctuidae).
Distribution: Caucasus, Central Asia, Western Europe (13).
56. *Ichneumon bucculentus* Wesmael, 1884
Shamkir, 26.06.1974, 1♀, motley grass; Masally, 19.06.1971, 1♂, 1♀.
Host: *Cerapteryx grominis* Linnaeus (Noctuidae)
Distribution: Caucasus, Kazakhstan, Siberia, Western Europe (13).
57. *Ichneumon sarcitorius* Linnaeus, 1758
Shusha, 05.10.1978, 1♂, fruit garden, motley grass; Kubatly, 20.06.1961, 1♂, motley grass; Oğuz, 24.07.1968, 1♂, forest; Barda, 13.05.1974, 1♀, cotton Masally, 13.07.1962, 8♂♂, fruit garden; Kuba, 17.07.1961, 14♂♂; fruit garden; Goychay, 06.04.1964, 14♂♂, corn field.
Host: *Agrotis segetum* Den. et Schiffermüller (Noctuidae)
Distribution: Sankt–Peterburg, Caucasus, Kazakhstan, Central Asia, Siberia as far as Primoria, Western Europe, Iran (13).
58. *Ichneumon caedator* Gravenhorst, 1829
Kuba, 21.05.1973, 3♂♂; motley grass
Distribution: Kazakhstan, Siberia, Western Europe, Mongolia (13).

- * 59 *Ichneumon tuberculipes* Wesmael, 1848
Kuba, 10.06.1961, 1 ♂; Masally, 10.06.1961, 1 ♂, motley grass; Masally, 27.05.1965, 5 ♂♂, spurge.
Distribution: Western Europe (13).
- * 60. *Ichneumon balteatus* Wesmael, 1884
Kuba, 10.06.1971, 1 ♀, motley grass, fruit garden.
Host: *Dasychira pudibunda* Linnaeus (Lymantriidae), *Melitaea cinxia* Linnaeus (Nymphalidae), Western Europe (13).
- * 61. *Ichneumon ligatorius* Thunberg, 1822
Kuba, 17.08.1971, 2 ♀♀, fruit garden; Astara, 17.07.1974, 3 ♀♀, forest.
Host: *Cerapteryx graminis* Linnaeus (Noctuidae).
Distribution: Western Europe (13).
62. *Ichneumon proletarius* Wesmael, 1848
Masally, 10.06.1965, 1 ♂; Zakatala, 12.05.1973, 1 ♂, forest; Agdam, 27.08.1975, 1 ♂, forest; Barda, 27.08.1965, 1 ♂, forest.
Distribution: Caucasus, Western Europe, Iran (13).
63. *Ichneumon albicollis* Wesmael, 1857
Kusar, 27.06.1968, 2 ♀♀; v. Irgig, Kuba, 22.06.1968, 1 ♂, 1 ♀, fruit garden, motley grass; v. Kosmolian, Lerik, 12.06.1980, 1 ♂, 1 ♀, glade, motley grass.
Distribution: Caucasus, Central Asia, Kazakhstan, Siberia, Western Europe, Iran (13).
- * 65. *Ichneumon molitorius* Linnaeus, 1761
Masally, 15.08.1965, 17 ♂♂, 5 ♀♀, on dill; Shamkir, 09.07.1974, 1 ♂, Kelbadjar, 09.07.1974, 1 ♂; Goychay, 10.07.1974, 1 ♂.
Host: *Diarsia brunnea* Den. et Schiffermüller, *Panolis flammea* Den. et Schiffermüller, *Cerapteryx graminis* Linnaeus (Noctuidae).
66. *Ichneumon rogenhoferi* Kriechbaumer, 1888
Lenkoran, 25.06.1972, forest.
Host: *Parasemia plantaginis* Linnaeus (Arctiidae), *Syngraphe devergans* Hübner (Noctuidae).
Distribution: Western Europe, Iran (13).
67. *Ichneumon cessator* Müller, 1776
Lenkoran, 26.05.1979, 1 ♀, motley grass.
Host: *Nymphalis polychloros* Linnaeus, *Nymphalis xanthomelas* Esper, *Nymphalis urticae* Linnaeus (Nymphalidae).
Distribution: Caucasus, Central Asia, Kazakhstan, Siberia, Western Europe, Iran (13).
- * 68. *Ichneumon caloscelus* Wesmael, 1884
Lenkoran, 18.08.1971, 1 ♂, fruit garden; v. Kamo, Khanlar, 17.05.1974, 1 ♂, motley grass.
Host: *Hipparchia semele* Linnaeus (Satyridae).
Distribution: Western Europe (13).
69. *Ichneumon gravipes* Wesmael, 1885
V. Onjakele, Masally, 17.02.1965, 2 ♂♂, was raised from unknown pupae.
Distribution: Caucasus, Northern Siberia, Western Europe (13).
70. *Ichneumon gracilicornis* Wesmael, 1844
Kusar, 20.06.1974, 1 ♂, motley grass.
Parasite of various Nymphelidae.
Distribution: Murmansk oblast, Caucasus, Central Asia, Siberia, Western Europe (13).
71. *Ichneumon insidiosus* Wesmael, 1844
Kuba, 26.06.1971, 1 ♀, fruit garden, motley grass.
Host: *Panaxia dominula* Linnaeus (Arctiidae)
Distribution: Caucasus, Siberia, Western Europe (13).
72. *Ichneumon minutorius* Desvignes, 1856
(= *captorius* Thomson)
Kusar, 26.06.1971, 1 ♀, motley grass.
Distribution: Caucasus, Western Europe (13).
Genus *SPILOTHYRATELES* HEINRICH (*Amblyteles*, part)
Parasites of Noctuidae. Females overwinter Palearctic and Ethiopic oblasts. 2 species in Palearctics.
73. *Spilothyrates punctus* Gravenhorst, 1894
Lenkoran, 26.05.1972, 2 ♂♂, motley grass.
Distribution: Caucasus (13).
Genus *STENICHNEUMON* THOMSON
Parasites of Noctuidae, particularly Plusiinae—parasitize pupae.
74. *Stenichneumon culpator* Schrank, 1802
Khachmaz, 06.06.1963, 1 ♂, motley grass; Zakatala, 20.08.1969, 4 ♂♂, Kuba, 23.07.1973, 1 ♂, motley grass; Ordubad, 06.07.1967, 1 ♂, fruit garden.

Host: *Plasia festucae* Linnaeus, *Ctenoplusiani* Hübner (Noctuidae).

Distribution: Caucasus, Central Asia, Kazakhstan, Siberia, Western Europe, Iran, North America (13).

Genus *EXEPHANES* WESMAEL

75. *Exephanes occupator* Gravenhorst, 1844
(= *uniguttatus* Kriechbaumer, 1895)

Lenkoran, 26.07.1971, 2 ♀♀, motley grass.

Host: *Arenostola phragmitidis* Hübner, *Archanara sparganii* Esper (Noctuidae).

Distribution: Central Asia, Kazakhstan, Western Europe, Iran (13).

Genus *DIPHYUS* KRIECHBAUMER

Mainly parasites of Noctuidae (parasitize pupae). Palearctics and mountains Oriental and Ethiopia oblasts. 24 species.

76. *Diphyus septemguttus* Gravenhorst, 1888

Kuba, 26.06.1983, 1 ♀; 20.07.1974, 1 ♀; 20.07.1974, 1 ♀; Kusar, 22.06.1974, 1 ♀, fruit garden, motley grass.

Distribution: Caucasus, Central Asia, Kazakhstan, Siberia, Western Europe, Iran (13).

77. *Diphyus raptorius* Linnaeus, 1829
(*quadriguttorius* Gravenhorst)

Goychay, 26.06.1966, 1 ♀, motley grass.

Host: *Mythmina vitellina* Hübner, *Cirrhia togata* Esper (Noctuidae).

Distribution: Caucasus, Central Asia, Siberia (13).

78. *Diphyus quadripunctorius* Müller, 1776

Kusar, 27.06.1983, 2 ♀♀, motley grass; Agdam, 19.06.1971, 1 ♀, motley grass.

Host: *Noctua interjecta* Hübner, *Noctua pronuba* Linnaeus, *Noctua orbona* Hufnagel, *Noctua comes* Hübner, *Polymixis polymita* Linnaeus (Noctuidae).

Distribution: Caucasus, Central Asia, Primorie, Western Europe, Iran, Mongolia (13).

79. *Diphyus ochromelas* Gmelin, 1893 (*pulchellus* Chirst, *negatorius* Fabricius)

Lenkoran, 12.05.1978, 1 ♀, motley grass; Lerik, 16.06.1978, 1 ♀, motley grass.

Host: *Diarsia brunnea* Den. et Schiffermüller, *Agrotis segetum* Den. et Schiffermüller, *Mamestra brassicae* Linnaeus, *Mamestra persicariae* Linnaeus (Noctuidae).

Distribution: Sankt–Peterburg, Permsk oblast; Caucasus, Central Asia, Kazakhstan, Siberia, Western Europe, Mongolia (13).

80. *Diphyus luctatorius* Linnaeus, 1888

(= *culpatorius* Szepligeti)

Kuba, 12.08.1971, 1 ♂, motley grass; Shusha, 05.10.1972, 1 ♂, motley grass.

Host: *Agrotis clavis* Hufnagel (Noctuidae).

Distribution: Caucasus, Eastern Siberia as far as Chukot and Primoria, Western Europe (13).

* 81. *Diphyus palliatorius* Gravenhorst, 1844 Kusar, 12.09.1971, ♂.

Parasite of Sphingidae and Noctuidae.

Distribution: Kazakhstan, Siberia, Western Europe (13).

Genus *AMBLYTELES* WESMAEL

Parasites of Noctuidae, parasitize caterpillars.

82. *Amblyteles armatorius* Förster, 1895

Baku, 25.11.1933, 1 ♀, Shemakha, 09.07.1937, 1 ♂; Shemakha, 20.06.1937, 1 ♂; v. Kurtlar, Karabakh, 02.09.1929, 1 ♂; Shemakha, 25.06.1937, 2 ♂♂; Zakatala, 23.05.1971, 4 ♂♂, motley grass; Kakh, 08.06.1973, 1 ♂, motley grass; Agsu, 02.06.1975, 1 ♂, motley grass; Barda, 08.06.1973, 1 ♂, motley grass; Kazakh, 08.06.1973, 1 ♂, motley grass; Goychay, 06.07.1964, 1 ♂, motley grass; Lenkoran, 14.06.1971, 1 ♂, motley grass.

Distribution: Caucasus, Primorie, Western Europe, Iran, Japan (13).

Genus *CTENICHNEUMON* THOMSON (*Amblyteles*, part).

Parasites of Noctuidae. Parasitize pupae. Holarctic and Oriental oblasts – 10 species.

83. *Ctenichneumon panzeri* Wesmael, 1844

(*flavocinctus* Desvignes)

Shemakha, 20.07.1937, 1 ♂; Altiagach, 13.05.1937, 1 ♂; v. Tala, Zakatala, 14.07.1969, 3 1 ♂♂, motley grass; v. Krasnoselsk, Saatli, 25.10.1969, 1 ♂, in cotton; Saatli, 20.09.1968, 1 ♂, cotton; v. Jafarkhan, Saatli, 06.10.1969, 1 ♂, cotton; v. Marjanli, Jabrail, 27.07.1969, was raised from *Agrotis segetum* Den. et Schiffermüller.

Common parasite of *Agrotis segetum* Den. et Schiffermüller (Noctuidae), as well as *Helicoverpa armigera* Hübner, *Spodoptera exigua* Hübner (Noctuidae).

Distribution: Caucasus, Central Asia, Western Europe, Iran, China, Indonesia (13).

84. *Ctenichneumon castigator* Fabricius, 1844

Lenkoran, 26.07.1972, 1 ♀, motley grass.

Host: *Cirrhia togata* Esper, *Cucullia absinthii* Linnaeus, *Hadena parplesa* Den. et Schiffermüller, *Momestria oleracea* Linnaeus, *Archanara sparganii* Esper, *Orthosia stabilis* Den. et Schiffermüller (Noctuidae).

Distribution: Central Asia, Siberia, Western Europe, Iran (13).

85. *Ctenichneumon divisorius* Gravenhorst, 1871

Lenkoran, 17.07.1978, 1 ♀, motley grass; Lerik, 19.07.1978, 1 ♂, 1 ♀, forest, motley grass.

Distribution: Caucasus, Siberia, Western Europe (13).

86. *Ctenichneumon repentinus* Gravenhorst, 1895 (*melanocastanus* auct.)

Lenkoran, 17.07.1978, 2 ♂♂, forest, motley grass; Lerik, 19.07.1978, 1 ♂, forest, motley grass.

Host: *Orthosia munda* Den. et Schiffermüller, *Cucullia chamomillae* Den. et Schiffermüller, *Hadena rivularis* Fabricius (Noctuidae), *Zerynthia polyxena* Den. et Schiffermüller (Papilionidae).

Distribution: Caucasus, Central Asia, Siberia, Western Europe, Iran (13).

Genus *SPILICHNEUMON* THOMSON (*Amblyteles*, part)

The parasites of Noctuidae, developing in cereals stem or roots (parasitize caterpillars). Holarctic and mountains of Oriental oblasts.

87. *Spilichneumon occisor* Fabricius, 1884

(= *occisorius* Fabricius)

Zakatala, 19.06.1969, 1 ♂, motley grass; Lenkoran, 25.07.1972, motley grass.

Host: *Cirrhia togata* Esper (Noctuidae).

Distribution: The Crimea, Caucasus, Central Asia, Western Europe (13).

Genus *EUTANYACRA* CAMERON (*Amblyteles*, part)

Parasite of Noctuidae mainly—parasitize caterpillars. Holarctics and Mountains of Oriental oblast, 5 species.

88. *Eutanyacra picta* Schrank, 1791 (*vadatorius illiger*, 1844)

Lerik, 19.06.1978, 1 ♂, 1 ♀, motley grass; Agdam, 18.06.1974, 1 ♂, motley grass. Common parasite of *Agrotis segetum* Den. et Schiffermüller (Noctuidae).

Distribution: Caucasus, Central Asia, Kazakhstan, Siberia, Western Europe, Iran (13).

89. *Eutanyacra glaucatoria* Fabricius, 1889

Kuba, 19.07.1965, 1 ♂, motley grass; Masally, 17.08.1971, 1 ♂, motley grass.

Distribution: Central Asia, Kazakhstan, Siberia, Western Europe, Iran (13).

Genus *HOPLISMENUS* GRAVENHORST

Parasite of various Nymphalidae. Distributed in temperate zone of Holarctics, Mountains of Oriental and Neotropical oblasts.

* 90. *Hoplismenus bispinatorius* Thunberg, 1824

Zos, Lenkoran, 29.07.1972, 2 ♂♂, motley grass.

Distribution: Siberia as far as Sakhaline, Western Europe (13).

Tribe PROTOICHNEUMONINI

Parasites of various Heterocera. Mainly Holarctic.

Genus *COELICHNEUMON* THOMSON (*Ichneumon sensu* Townes).

Parasites of various Heterocera, mainly Noctuidae, Arctiidae etc. Parasitize pupae. Holarctic and particularly Oriental oblast.

91. *Coelichneumon desinatorius* Thunberg, 1899 (*fuscipes* auct.);

Agdam, 17.07.1974, 1 ♀, motley grass; Lenkoran, 19.06.1978, 2 ♀♀, motley grass.

Host: *Acronicta euphorbiae* Den. et Schiffermüller (Noctuidae).

Distribution: Caucasus, Western Europe (13).

92. *Coelichneumon falsificus* Wesmael, 1893

Kusar, 27.07.1968, 1 ♀, motley grass; Kuba, 25.07.1968, 1 ♂, 1 ♀, motley grass.

Host: *Acronicta rumicus* Linnaeus (Noctuidae).

Distribution: Caucasus; Central Asia, Kazakhstan, Siberia, Western Europe, Japan (13).

93. *Coelichneumon leucocerus* Gravenhorst, 1893

V. Alekseyevka, Kuba, 19.07.1961, 1 ♂, motley grass.

Host: *Acronicta megacephala* Den. et Schiffermüller, *Euxco nigricans* Linnaeus, *Mamestra percicariae* Linnaeus (Noctuidae).

Distribution: Caucasus, Siberia as far as Kamchatka, Western Europe (13).

94. *Coelichneumon biguttulatus* Kriechbaumer, 1875

Kazakh, 26.07.1976, 1 ♀, motley grass.

Distribution: Caucasus, Western Europe (13).

95. *Coelichneumon fasciatus* Gmelin, 1824

Goychay, 26.07.1965, 1 ♂.

Host: *Panolis flammea* Den. et Schiffermüller, *Plusia* spp. (Noctuidae), *Fagivorina arenaria* Hufnagel, *Bupalus piniarius* Linnaeus, *Abraxas grossulariata* Linnaeus (Geometridae).

Distribution: Caucasus, Western Europe (13).

96. *Coelichneumon singularis* Berthoumieu, 1892

Kazakh, 26.07.1974, 1 ♀, motley grass.

Distribution: Caucasus, Central Asia, Kazakhstan (13).

97. *Coelichneumon orbitator* Thunberg, 1892

Kazakh, 26.07.1974, 1 ♂, motley grass.

Host: *Enargia ypsilon* Den. et Schiffermüller (Noctuidae).

Distribution: Caucasus, Western Europe (13).

98. *Coelichneumon comitator* Linnaeus, 1893

(*lineator* auct.).

Kuba, 26.07.1968, 1 ♀, motley grass.

Host: *Autographa gamma* Linnaeus (Noctuidae), *Abraxas grossulariata* Linnaeus, *Bupalus piniarius* Linnaeus (Geometridae).

Distribution: Caucasus, Central Asia, Siberia, Western Europe, Iran (13).

99. *Coelichneumon nigerrimus* Stephens, 1893 (= *derasus* Wesmael)

Kuba, 26.07.1968, 1 ♀.

Host: *Enargia ypsilon* Den. et Schiffermüller (Noctuidae).

Distribution: Caucasus, Central Asia, Western Europe, Iran (13).

100. *Coelichneumon dorsosignatus* Berthoumieu, 1894 (= *commenticius* Kokyjev)

Kuba, 26.07.1968, 1 ♂.

Distribution: Caucasus, Central Asia, Kazakhstan, Western Europe (13).

Genus *PROTICHNEUMON* THOMSON

Parasite of Sphingidae, parasitize pupae. Holarctic and Mountains of Oriental oblasts. In former USSR–6 species.

Table 1. Tribe, genus and quantity of species of subfamily of Ichneumoninae

Ichneumoninae			
Tribe	Genus	Quantity of species	
1. Phaeogenini	Rhexidermus	3	
	Colpognathus	1	
	Centeterus	3	
	Herpestomus	2	
	Diadromus	4	
	Thyraeella	1	
	Phaeogenes	4	
	2. Platylabini	Ectopius	1
		Cyclolabus	2
		Platylabus	3
3. Eurylabini	Hypomecus	1	
	Eurylabus	2	
	Probolus	1	
4. Listrodromini	Anisobas	1	
	5. Ichneumonini	Cratichneumon	6
Platylabops		1	
Melanichneumon		1	
Virgichneumon		5	
Barichneumon		4	
Stenobarichneumon		1	
Crytea		1	
Vulgichneumon		2	
Sypsis		2	
Lymantrichneumon		1	
Ichneumon		18	
Spilothyrates		1	
Stenichneumon		1	
Exephanes		1	
Diphyus		6	
Amblyteles		1	
Ctenichneumon		4	
Spilichneumon		1	
Eutanyacra	2		
Hoplismenus	1		
6. Protichneumonini	Coelichneumon	10	
	Protichneumon	2	
	Amblyjoppa	1	

101. *Protichneumon pisorius* Linnaeus, 1903 (= *fusorius*)

Khachmaz, 09.06.1971, 1 ♀, forest.

Host: *Spiux pinaatri* Linnaeus, *Spiux ligustri* Linnaeus, *Laothoe popali* Linnaeus, *Smerinthus ocellatus* Linnaeus.

Distribution: Kazakhstan, Siberia, Western Europe, Turkey, Iran, Afghanistan (13).

102. *Protichneumon fusorius* Linnaeus, 1893 (*Pisorius* auct.)

Khachmaz, 09.07.1961, 1 ♂, forest; Goychay, 09.05.1964, 1 ♂, motley grass.

Host: *Sphinx pinastri* Linnaeus, *Smerinthus ocellatus* Linnaeus.

Distribution: Caucasus, Central Asia, Kazakhstan, Siberia, Western Europe, Iran, Japan (13).

Genus *AMBLYJOPPA* CAMERON

Parasite of Spingidae. Holarctic. In Europe 2, In former USSR 4 species.

103. *Amblyjoppa fuscipennis* Wesmael, 1893

Kuba, 26.07.1972, 1 ♂, motley grass.

Host: *Deilephila elpenor* Linnaeus, *Deilephila procellus* Linnaeus, *Sphinx ligustri* Linnaeus, *Herse convolvuli* Linnaeus, *Macroglossum stellatarum* Linnaeus, *Hemarius fuciformis* Linnaeus.

Distribution: Caucasus, Central Asia, Kazakhstn, Siberia as far as Sakhalin, Western Europe (13).

Discussion and Conclusion

Thus, the subfamily Ichneumoninae is represented by 103 species which unite with 6 tribes belonging to 36 genera (2). 7 genera belong the tribe Phaeogenini and 3 species belong to Rhexedermus. 3 to *Phaeogenes*, 3 to *Centeterus*, 4 to *Diadromus*, 2 to *Herpestomus*, but the

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genera *Colpognathus* and *Tryaella* include 1 species. 4 genera belong to the tribe Platolabini, 3 species belong to the genus *Platylabus*, *Cyclolabus* has 2 species, but genera *Ectopius* and *Hypomecus* have 1 species. 2 genera belong to the tribe Eurylabini, *Eurylabus* with 2 species and *Probolus* with 1 species. The tribe Listrodromini indudes one genus *Anisobas* with a single species. 20 genera belong to the tribe Ichneumonini. The genus with the most species is *Ichneumon* (18 species), *Cratichneumon* includes 6 species, *Diphyus* 6 species, *Virgichneumon* 5 species, *Barichneumon* 4 species, *Ctenichneumon* 4 species. The other genera have 1 or 2 species. 3 genera with 13 species belong to Protoicneumonini: 10 species to *Coelichneumon*, 2 to *Protichneumon*, 1 to *Amblyjoppa*.

In the Ichneumoninae subfamily, as given in table No 1 10 species are new records for Azerbaijan and 25 species for Caucasian fauna. Furthermore, 65 species are new records for Transcaucasian fauna.

Most Ichneumoninae samples were obtained in fruit gardens, forest tracts and some of them in cotton plantations. Flights of ichneumonids were noted from the beginning of April to the end of October. Some of them are effective parasites and they were raised from the larvae and pupae of ermine moth, cabbage moth, turnip moth, geometrids and some other Lepidoptera.

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