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UDC 595.7 – 155

**THE BEE GENUS *ANDRENA* FABRICIUS, 1775 (*HYMENOPTERA*,  
*APOIDEA*, *ANDRENIDAE*) IN AZERBAIJAN.  
REPORT 1. THE SUBGENERA *CHLORANDRENA*, *ORANDRENA*,  
*LEPIDANDRENA*, *POECILANDRENA*, *ULANDRENA*,  
*NOBANDRENA*, *TRUNCANDRENA*, *MELITTOIDES*,  
*CHARITANDRENA*, *SCITANDRENA*, *MELANAPIS*, *PLASTANDRENA***

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An annotated checklist of 42 species of the bee genus *Andrena* belonging to 12 subgenera is given. The most species-rich subgenera are *Plastandrena* – 7, *Poecilandrena* – 6, *Lepidandrena* – 5, *Chlorandrena* – 5, *Nobadrena* – 5, *Truncandrena* – 5. Each species is supplied with date on landscape and khabitat

preferences, as well as trophic relations. *Andrena panurgimorpha* Mavromoustakis, 1957, *A. potentillae* Panzer, 1809, *A. compta* Lepeletier, 1841 and *A. crataegi* Robertson, 1893 are recorded in Azerbaijan for the first time.

*Key words: Andrena, subgenera, distribution, trophic relation, inhabits*

**БДЖОЛИНИ РОДИНИ ANDRENA FABRICIUS, 1775 (HYMENOPTERA, APOIDEA, ANDRENIDAE)  
АЗЕРБАЙДЖАНУ. ПОВІДОМЛЕННЯ 1. ПІДРІД CHLORANDRENA, ORANDRENA, LEPIDANDRENA,  
POECILANDRENA, ULANDRENA, NOBANDRENA, TRUNCANDRENA, MELITTOIDES,  
CHARITANDRENA, SCITANDRENA, MELANAPIS, PLASTANDRENA**

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Наводиться анотований список 42 видів бджіл роду *Andrena*, що відносяться до 12 підродів. Більшим різноманіттям представлені підроди *Plastandrena* – 7, *Poecilandrena* – 6, *Lepidandrena* – 5 і *Chlorandrena* – 5. Для кожного виду вказуються ландшафт і біотопи, а також трофічні зв'язки. Для фауни Азербайджану вперше наводяться *Andrena panurgimorpha* Mavromoustakis, 1957, *A. potentillae* Panzer, 1809, *A. compta* Lepeletier, 1841, *A. crataegi* Robertson, 1893.

*Ключові слова: Andrena, підрід, поширення, трофічні зв'язки, місце проживання*

**ПЧЕЛИНЫЕ РОДА ANDRENA FABRICIUS, 1775 (HYMENOPTERA, APOIDEA, ANDRENIDAE)  
АЗЕРБАЙДЖАНА. СООБЩЕНИЕ 1. ПОДРОДА CHLORANDRENA, ORANDRENA, LEPIDANDRENA,  
POECILANDRENA, ULANDRENA, NOBANDRENA, TRUNCANDRENA, MELITTOIDES,  
CHARITANDRENA, SCITANDRENA, MELANAPIS, PLASTANDRENA**

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Приводится аннотированный список 42 видов пчел рода *Andrena*, относящихся к 12 под родам. Большим разнообразием представлены под рода *Plastandrena* – 7, *Poecilandrena* – 6, *Lepidandrena* – 5 и *Chlorandrena* – 5. Для каждого вида указывается ландшафт и биотопы, а также трофические связи. Для фауны Азербайджана впервые приводятся *Andrena panurgimorpha* Mavromoustakis, 1957, *A. potentillae* Panzer, 1809, *A. compta* Lepeletier, 1841, *A. crataegi* Robertson, 1893.

*Ключевые слова: Andrena, подрод, распространение, трофические связи, место обитания*

## INTRODUCTION

Information concerning the fauna of the bee genus *Andrena* of Azerbaijan is scarce and fragmentary, being scattered in only a few publications [1 – 6]. Thus, Osychnyuk [7] recorded in Azerbaijan 15 species or subspecies from the subgenera *Lepidandrena* Hedicke, 1933 (*A. pandelli* Perez, 1895, *A. paucisquama* Noskiewicz, 1924, *A. rufizona* Imhoff, 1834); *Poecilandrena* Hedicke, 1933 (*A. labiata* Fabricius, 1871, *A. semirubra* Morawitz, 1876, *A. seminuda* Friese, 1896, *A. viridescens* Viereck, 1916); *Ulandrena* Warncke, 1968 (*A. abbreviata* osychniuki Warncke, 1973, *A. combaella* Warncke, 1966); *Nobandrena* Warncke, 1968 (*A. anatolica* Alfken, 1935, *A. athenensis* Warncke, 1965, *A. flavobila* Warncke, 1965); *Truncandrena* Warncke, 1968 (*A. truncatilabris* Morawitz, 1877); *Scitandrena* Warncke, 1968 (*A. scita* Eversmann, 1852) and *Melanapis* Cameron, 1902 (*A. fuscata* Erichson, 1835). These species were collected mainly from the Talysh Mountains, Nagorno-Karabakh, Nakhichevan and in the Shemakha District. Skhirtladze [8] reported from Azerbaijan further three species of the subgenera *Plastandrena* Hedicke, 1933 (*A. bimaculata* (Kirby, 1802), *A. carbonaria* (Linnaeus, 1767)) and *Scitandrena* (*A. scita*), collected in the Mil Steppe, Turianchay Nature Reserve (Aghdash region) and Nakhichevan. Aliyev [3] recorded in Azerbaijan 25 species or subspecies from the subgenera *Chlorandrena* Perez, 1890 (*A. cinereophila* Warncke, 1965, *A. humilis* Imhoff, 1832, *A. taraxaci* Giraud, 1861); *Orandrena* Warncke, 1968 (*A. oralis* Morawitz, 1876), *Lepidandrena* (*A. curvungula* Thomson, 1870, *A. florivaga* Eversmann, 1852); *Poecilandrena* (*A. labiata*, *A. laticeps*, *A. viridescens*); *Ulandrena* (*A. abbreviata* osychniuki, *A. combaella*, *A. elegans*,

*A. tecta*); *Nobandrena* (*A. anatolica*, *A. athenensis*, *A. nobilis*); *Truncandrena* (*A. albopicta*, *A. truncatilabris*); *Melittoides* (*A. curiosa*); *Charitandrena* (*A. KhAttorfiana*); *Scitandrena* (*A. scita*), *Melanapis* (*A. fuscosa*) and *Plastandrena* (*A. bimaculata*, *A. carbonaria*, *A. subconsobrina*, *A. tibialis*). In the Apsheron Peninsula, Aliyev & Aliyev [5] reported 12 species or subspecies from the subgenera *Lepidandrena* (*A. florivaga*); *Poecilandrena* (*A. labiata*, *A. laticeps*), *Ulandrena* (*A. abbreviata osychniuki*, *A. combaella*); *Nobandrena* (*A. nobilis*); *Truncandrena* (*A. caspica*, *A. derbentina*); *Melittoides* (*A. curiosa*); *Melanapis* (*A. fuscosa*) and *Plastandrena* (*A. bimaculata*, *A. carbonaria*). That paper also provides information on the distribution, landscape and habitat preferences, as well as trophic relations of 42 species from 12 subgenera. The distributions are given according to literature data [9-32].

The aim of the study was identification of the fauna of bee species of the genus *Andrena* (*Hymenoptera*, *Apoidea*, *Andrenidae*) in the Azerbaijan.

## MATERIALS AND METHODS

The material of the present work consists of collection of *Andrena* bees deposited at Institute of Zoology, National Azerbaijan Academy of Science, and my own samples conducted in 2006 – 2012 years. Standard entomological methods were used for collection of bees, including net sweeping, visual searching, followed by capturing with glass cups and Males traps.

Some species of *Andrena* were identified with the help of D.V. Panfilov at the Zoological Museum of the Moscow State University, most of the remaining species were determined by A.Z. Osychnyuk at the Institute of Zoology, National Academy of Sciences of Ukraine, Kiev. In addition, we checked some identification against the reference collection of bees kept in the Senckenberg German Entomological Institute, Müncheberg, Germany in 2005 and 2010. The food plants were identified by K. F. Akhundov, Head of the Herbarium of the Institute of Botany, National Academy of Sciences of Azerbaijan.

Abbreviations: KhA – Kh. Aliyev, AB – A. Bogachev, MV – M. Vinovsky, GG – G. Guseynzade, TY – T. Yunusov, MM – M. Magerramov, YU.M – Yu. Mirzoev

## RESULTS AND DISCUSSION

### Genus *Andrena* Fabricius, 1775

#### Subgenus *Chlorandrena* Perez, 1890

A Palaearctic subgenus which includes 53 species. Azerbaijan is represented by five species.

#### *Andrena (Chlorandrena) humilis* Imhoff, 1832

**Distribution.** Europe, except the north, Africa and Central Asia, the Caucasus, northern China and the Far East.

**Material:** Kazakh, Alpout, 10.05.1979, 5 ♂, KhA; Kuba, Kachresh, 8.06.1981, 1 ♂, KhA; Shusha, Gaybaly, forest, 13.05.1980, 3 ♂, KhA; Mardakert (now Agdare), Leninavan, 27.04.1979, 1 ♂, KhA; Altiaghac, 29.05.1981, 1 ♂, KhA; Agdash, Turianchay State Reserve, 10.05.1992, 1 ♂, KhA, Lankaran, near Khanbulanchay Water Reservoir, 15.06.1991, 1 ♀.

**Remark.** Olygolecty, preferring plants with yellow flowers. Inhabits foothills steppe and forest, as well as midmontane forest landscapes up to 1400 m a.s.l.

**Trophic relations:** *Ranunculus arvensis*, *Īnula helenium*, *Helianthus cultus*.

#### *Andrena (Chlorandrena) cinerea* Brulle, 1832

**Distribution.** Morocco, Libya, Crete, Corsica, Greece, Spain, France, Croatia, Germany, Turkey, Armenia.

**Material:** Sangachali, Mount Chingyldag, 12.04.2005, 2 ♂, KhA

**Remark.** Inhabits semi-arid foothill landscapes.

**Trophic relations:** *Barbareae* sp.

***Andrena (Chlorandrena) cinereophila* Warncke, 1965**

**Distribution.** Crete, Cyprus, Turkey, Romania, Afghanistan, Azerbaijan, Russia (eastern Siberia).

**Material:** Kuba, Askeri, 10.06.1981, 2 ♀, KhA; Kusary, Laza, subalpine meadows, 21.08.1980, 1 ♀, KhA; Altyagach, 2.05.1980, 1 ♂, KhA; Lankaran, Azfilial, on Compositae, 20.05.1983, 3 ♀, KhA; Kuba, Kachresh, 8.06.1981, 2 ♀, KhA.

**Remark.** Occurs in lowland forest, low-montane forest and steppe and subalpine landscapes at edges, on clearings and in meadows.

**Trophic relations:** *Taraxcum sp.*, *Matricaria sp.*, *Tanacetum sp.*

***Andrena (Chlorandrena) panurgimorpha* Mavromoustakis, 1957**

**Distribution.** Ukraine, Crete, Cyprus, Turkey, Armenia, Azerbaijan, Iran.

**Material:** Ismayilly, 600 m, 01.05.1987, 1 ♀, KhA.

**Remark.** Dwells in low-montane forest landscapes at edges. Recorded in Azerbaijan for the first time.

***Andrena (Chlorandrena) taraxaci* Giraud, 1861**

**Distribution.** Slovenia, Hungary, Ukraine, Turkey, Israel, China, Japan (Shikoku and Honshu).

**Material:** Altiaghac, 25.05.1981, 3 ♀, KhA.

**Remark.** Lives in midmontane forested steppe landscapes up to 1000 m a.s.l.

**Trophic relations:** *Taraxacum officinale*, *Tragopagon sp.*

**Subgenus *Orandrena* Warncke, 1968**

A South Palaearctic subgenus containing nine species, of which only one is found in Azerbaijan.

***Andrena (Orandrena) oralis* Morawitz, 1876**

**Distribution.** Greece, Romania, Turkey, Czech Republic, Slovenia, Croatia, Hungary, Ukraine, Russia (Rostov-on-Don, Dagestan, Bashkortostan), Kazakhstan, Azerbaijan, Uzbekistan.

**Material:** Kazakh, Poilu, Eldar Steppe, 20.05.1985, 1 ♀, MV.

**Remark.** Lives in foothill steppe landscapes.

**Subgenus *Lepidandrena* Hedicke, 1933**

A Palaearctic subgenus comprising about 16 species. Azerbaijan hosts five species.

***Andrena (Lepidandrena) curvungula* Thomson, 1870**

**Distribution.** Europe, except the far north, Turkey, Armenia, Azerbaijan, western Kazakhstan.

**Material:** Lankaran, Azfilial, 20.05.1983, on *Campanula caucasica*, 9 ♀, KhA; Salyan, bank of Kura River, 18.06.1996, 1 ♀, KhA.

**Remark.** Lives in low-lying semi-arid landscape, as well as on the margins of lowland rainforest. Spends the night in the flowers *Campanula sp.*

**Trophic links:** *Campanula caucasica*.

***Andrena (Lepidandrena) pandellei* Perez, 1895**

**Distribution.** Morocco, Portugal, France, Switzerland, Austria, Slovenia, Ukraine, Turkey, Azerbaijan (Talysh Mts.)

**Material:** Lankaran, Azfilial, 26.05.2008, 3 ♀ 1 ♂, KhA.

**Remark.** Inhabits glades and edges of humid lowland forest.

**Trophic links:** *Campanula sp.*

***Andrena (Lepidandrena) paucisquama* Noskiewicz, 1924**

**Distribution.** Spain, France, Italy, Greece, Austria, Czech Republic, Hungary, Poland, Moldova, Ukraine, Turkey, Georgia, European Russia (Pyatigorsk, Dagestan, Bashkortostan), Azerbaijan.

**Material:** Shamahy, Sis, 11.06.2004, 3 ♀, 2 ♂, KhA.

**Remark.** Lives in midmontane forest landscapes at edges up to 1400 m a.s.l.

**Trophic links:** *Geranium sp.*, *Campanula sp.*

***Andrena (Lepidandrena) rufizona* Imhoff, 1834**

**Distribution.** France, Italy, Switzerland, Austria, Germany, Czech Republic, Poland, Ukraine, European Russia (North Ossetia, Bashkortostan), Azerbaijan.

**Material.** Shusha, Gaybaly, 25.07.1980, 2 ♀, 1 ♂, KhA.

**Remarks.** Lives in midmontane forest landscapes at edges up to 1400 m a.s.l.

**Trophic relations.** *Campanula sp.*, *Geranium sp.*

***Andrena (Lepidandrena) florivaga* Eversmann, 1852**

**Distribution.** France, Germany, Austria, Czech Republic, Hungary, Greece, Turkey, Ukraine, Lithuania, European Russia (Dagestan, Bashkortostan), Azerbaijan.

**Material.** Ordubad, Bilav, 14.06.1980, 1 ♀, KhA; Baku, 24.03.1938, 1 ♂, AB; Baku, 01.04.2009, 2 ♂, 1 ♀, TY

**Remarks.** Inhabits lowland semi-desert and midmontane steppe landscapes up to 1400 m a.s.l.

**Subgenus *Poecilandrena* Hedicke, 1933**

A South Palaearctic subgenus with about 40 species, six of which occur in Azerbaijan.

***Andrena (Poecilandrena) labiata* Fabricius, 1871**

**Distribution.** All over Europe, except the extreme north, Turkey, the Caucasus, Kyrgyzstan.

**Material.** Apsheron, Shuvelan, 14.03.1977, 1 ♀, KhA. Gandja (former Kirovabad), 21.04.1939, 1 ♀, AB. Kuba, Kachresh, 8.06.1981, 2 ♂, TY. Altiaghac, 1.06.1981, 1 ♀, KhA. Gabala, 1000 m a.s.l., 2.05.1987, 1 ♂, KhA.

**Remarks.** Lives in semi-desert foothill steppe, low-montane steppe and forest landscapes. Settles mainly in sandy habitats. A polylect, females found to carry pollen of 15 plant species from seven families. In the mountains reaching up to 1000 m a.s.l.

**Trophic relations.** *Nonnea setosa*, *Ranunculus scleratus*, *Trifolium diffusum*, *Spiraea crenata*, *Geranium robertianum*, *Euphorbia sp.*

***Andrena (Poecilandrena) laticeps* Morawitz, 1877**

**Distribution.** Turkey and the Caucasus.

**Material.** Altiaghac, 30.05.1981, 1 ♀, KhA.

**Remarks.** Dwells in low-montane steppe landscapes up to 1000 m a.s.l.

**Trophic relations.** *Veronica gentianoides*.

***Andrena (Poecilandrena) seminuda* Friese, 1896**

**Distribution.** Czech Republic, Slovakia, Hungary, Croatia, Romania, Ukraine, Turkey, Iran, Greece, Italy, Azerbaijan.

**Material.** Lerik, 5.06.1999, 2 ♀, 1 ♂, KhA.

**Remarks.** Lives in midmontane forest landscapes up to 1200 m a.s.l.

**Trophic relations.** *Crataegus sp.*, *Ranunculus sp.*

***Andrena (Poecilandrena) semirubra* Morawitz, 1876**

**Distribution.** Ukraine, Turkey, Israel, southern Russia (Rostov-on-Don Region), Georgia and Azerbaijan.

**Material.** Yardymly, Awash, 16.06.1996, 1 ♀, KhA.

**Remarks.** Occurs in midmontane forest landscapes in open areas with sparse vegetation up to 1200 m a.s.l.

**Trophic relations.** *Potentilla* sp.

***Andrena (Poecilandrena) viridescens* Viereck, 1916**

**Distribution.** Switzerland, Austria, Germany, Poland, Ukraine, Czech Republic, Hungary, Serbia, Greece, Romania, Turkey and Azerbaijan.

**Material.** Lankaran, Azfilial, 10.06.1976, 3 ♀, KhA.

**Remarks.** Inhabits glades and edges of lowland forests.

**Trophic relations.** *Veronica* sp.

***Andrena (Poecilandrena) potentillae* Panzer, 1809**

**Distribution.** Central Europe, Greece to Bashkiria, Azerbaijan.

**Material.** Lerik, Divagach, 1400 m, 25.05.2003, 1 ♀, KhA.

**Remarks.** Lives in midmontane steppe landscapes on dry slopes up to 1400 m a.s.l. New to the fauna of Azerbaijan.

**Trophic relations.** *Taraxacum* sp.

**Subgenus *Ulandrena* Warncke, 1968**

A South Palaearctic subgenus with 25 species, four of which occur in Azerbaijan.

***Andrena (Ulandrena) abbreviata osychniuki* Warncke, 1973**

**Distribution.** Ukraine, Greece, Macedonia, Bulgaria, Romania, Turkey and Azerbaijan.

**Material.** Shamahy, Darakend, 17.05.2007, 1 ♀, 2 ♂, KhA. Baku, Sumgait, 24.04.1937, 1 ♀, AB.

**Remarks.** Lives in semi-arid steppe and foothill landscapes up to 400 m a.s.l.

**Trophic relations.** *Nonnea* sp.

***Andrena (Ulandrena) combaella* Warncke, 1966**

**Distribution.** Italy, Austria, Slovakia, Greece, Bulgaria, Hungary, Ukraine, Turkey, Georgia and Azerbaijan.

**Material.** Alat, Island Glinyanyi (now Gil), 10.04.1983, 19 ♀, 10 ♂, KhA. Shamahy, Derekend, 17.05.2007, 1 ♂, 1 ♀, TY.

**Remarks.** Lives in the foothills of the steppe landscape in dry Habitats with a predominance of crucifers. Isolated population is found on the island of Clay.

**Trophic relations.** *Anthemis candidissima*, *Barbareae* sp.

***Andrena (Ulandrena) elegans* Giraud, 1863**

**Distribution.** France, Croatia, Bulgaria, Romania, Ukraine, Turkey, Italy, the south of Europe. Part of Russia, western Kazakhstan, Georgia and Azerbaijan.

**Material.** Zakataly, 24.06.1933, 1 ♂, AB, Zakataly, Perzivan, 15.06.1984, 1 ♀ 2 ♂, KhA

**Remarks.** Dwells in the low forest landscape on the fringe. In the mountains rising up to 900 m a.s.l.

**Trophic relations.** *Achillea* sp., *Potentilla* sp.

***Andrena (Ulandrena) tecta* Radoszkowski, 1876**

**Distribution.** Azerbaijan.

**Material.** Ordubad, Ag-dara, 18.06.1980, 1 ♂, KhA, Ordubad, Ag-dara, 20.06.2012, 1 ♂ 1 ♀, KhA

**Remarks.** Lives in are middle steppe landscape on steppe meadows. In the mountain rises to 1,800 meters.

**Trophic relations.** *Lathyrus* sp., *Cephalaria* sp.

### Subgenus *Nobandrena* Warncke, 1968

South Palearctic subgenus of 13 known species in Azerbaijan live 5 species.

#### *Andrena (Nobandrena) anatolica* Alfken, 1935

**Distribution.** Ukraine, Romania, Macedonia, Lebanon, Turkey, Greece, Moldova, Russia (Siberia), Azerbaijan.

**Material.** Ordubad zap.skl. of Kapydzhik, 20.06.1980, 1♀ 1♂, KhA, Lerik, mnt. Kemyurkey, 20.06.2004, 2♀ 1♂, KhA

**Remarks.** Lives in subalpine landscape. In the mountains rising up to 2000 m a.s.l.

**Trophic relations.** *Erucastrum armoracioides*, *Ranunculus* sp., *Lepidium draba*.

#### *Andrena (Nobandrena) athenensis* Warncke, 1965

**Distribution.** Greece, Turkey, Romania, Ukraine, Macedonia, Armenia, and Azerbaijan.

**Material.** Ganja, valley R.Gandzha -chay, 10.06.1933, 4♀, AB, Lerik, Zuvand, 15.06.2004, 1♀ 1♂, KhA

**Remarks.** Lives in the foothills of the steppe and steppe landscapes are middle along the banks of rivers. In the mountains rising up to 1500 m a.s.l.

**Trophic relations.** *Barbareae* sp., *Sisymbrium* sp., *Erucastrum* sp.

#### *Andrena (Nobandrena) compta* Lepeletier, 1841

**Distribution.** Morocco, Algeria, Libya, Italy (Sicily), Azerbaijan.

**Material.** Julfa, Goynuk, 1.06.2006, 1♂, MM

**Remark.** Lives in are middle steppe landscape. In the mountain rises to 1,600 m a.s.l. Noted for the first time for the fauna of Azerbaijan.

#### *Andrena (Nobandrena) flavobila* Warncke, 1965

**Distribution.** Greece, Turkey, Ukraine, Azerbaijan.

**Material.** Lerik, Gilidara, 29.05.2001, 2♂1♀, KhA

**Remarks.** Lives in are middle steppe landscape on dry slopes. In the mountain rises to 1,700 meters.

**Trophic relations.** *Sisymbrium* sp.

#### *Andrena (Nobandrena) nobilis* Morawitz, 1874

**Distribution.** Central and Southern Europe to Bashkiria, Asia Minor, Azerbaijan, Iran, Turkmenistan.

**Material.** Apsheron, Pirshagi, 20.05.1997, 1♂, KhA, Julfa, Pazmara, 12.06.1980, 2♂, KhA, Baku, Perikishkyul, 6.05.1938, 1♂, AB

**Remarks.** Lives in semi-desert and steppe landscapes are middle in sandy and sandy Habitats. In the mountain rises to 1,700 meters.

**Trophic relations.** *Barbareae minor*, *Arabis* sp., *Isatis subradiata*.

### Subgenus *Truncandrena* Warncke, 1968

South Palearctic subgenus of 33 known species found in Azerbaijan only five.

#### *Andrena (Truncandrena) albopicta* Radoszkowski, 1874

**Distribution.** Iraq, Turkey, Iran and Azerbaijan.

**Material.** Apsheron, Shuvelan, 18.03.1977, 1♀, KhA, Apsheron, Inžirnaya, 10.04.1982, 1♀, KhA, Baku, 24.03.1938, 1♂, AB, Ismayilly, 900m ., 1.05.2002, 3♀, KhA

**Remark.** Lives in the semi-arid steppe and low-landshaftah.Gnezditsya preferably in sandy Habitats. In the mountains rising up to 900 m a.s.l.

**Trophic relations.** *Muscari leucostomum*, *Lepidium* sp., *Nonnea* sp., *Barbareae* sp.

***Andrena (Truncandrena) combusta* Morawitz, 1876**

**Distribution.** Turkey, Iran, Azerbaijan, Tajikistan.

**Material.** Apsheron, Inžirnaya, 20.08.1976, 1♀, KhA, Apsheron, Shuvelan, 9.04.1977, 1♀, KhA, Baku, Bot.sad, 16.04.1978, 2♀, KhA, Baku, 24.04.1037, 1♀, AB, Baku, 5-7. 04.1983, 33♂ 3♀, KhA

**Remark.** Lives in the semi-arid landscape in the gardens. Nest in the rocky soil.

**Trophic relations.** *Lepidium draba*.

***Andrena (Truncandrena) derbentina* Morawitz, 1886**

**Distribution.** Tunisia, Turkey, Azerbaijan.

**Material.** Baku, 9.04.1986, 1♀, KhA

**Remark.** Lives in the semi-arid landscape, nest in the rocky soil.

**Trophic relations.** *Prunus domestica*.

***Andrena (Truncandrena) rufomaculata optata* Warncke, 1975**

**Distribution.** Albania, Macedonia, Greece, Hungary, Ukraine, Azerbaijan.

**Material.** Agdash, Turianchai State Reserve, 6-10.05.1992, 1♀ 3♂, KhA, Ismayilly, 05.01.1987, 3, KhA

**Remarks.** Dwells in the low steppe landscape preference otalet dry biota with a predominance of crucifers.

**Trophic relations.** *Alyssum sp.*, *Sisymbrium sp.*

***Andrena (Truncandrena) truncatilabris* Morawitz, 1877**

**Distribution.** Morocco, from France to Kazakhstan, Turkey, Iran and Azerbaijan.

**Material.** Sheki, grain farm, 20.04.1976, 1♀ 2♂, KhA, Mardakert (now Agdare) Leninavan, 26.04.1976, 1♀, KhA, Nakhichevan, 31.05.1933, 3♂, AB ., Altiaghac, 2.05.1980, 01.06.1980, 4♂, KhA, Kyurdamir, Kerrar, 23.04.1979, 1♀, KhA, Sheki, 18.04.1979, 1♂, KhA, Kazakh, Alpout, 10.05.1979, 1♂, KhA, Ordubad, Ag-dara, 17.06.1980, 1♀, KhA, Agdash Turianchai State Reserve, 09.05.1992, 3♀, KhA .

**Remark.** Lives in semi-desert, foothill steppe, steppe and middle lowland steppe landscape in the mountains rising up to 1800 m a.s.l.

**Trophic relations.** *Astragalus sp.*, *Lathyrus sp.*, *Coluteocarpus vesicaria*, *Thlaspi freunii*, *Torularia torulosa*.

**Subgenus *Melittoides* Friese, 1921**

Eastern Mediterranean subgenus containing five species. Of these, only one is found in Azerbaijan.

***Andrena (Melittoides) curiosa* (Morawitz, 1877)**

**Distribution.** Turkey and the Caucasus.

**Material.** Beshbarmak near Baku, 01.05.1937, 1♂ 3♀, AB, Mingechaur, 28.03.1946, 1♀, AB, Ordubad, Ag-dara, 2000m., 18.06.1980, 1♂, KhA, Ordubad, Nyusnyus, 2000m., 26.05.1980, 1♂, KhA, Lerik, Gosmolyan, 25.05.1983, 1400 m., 1♂, KhA, Shahbuz, forest, 22.06 .1967, 1♂, Osychnyuk, Lerik, Galabyn, 27.05.1983, 1♂, KhA

**Remark.** Lives in the foothills of the steppe, steppe and forest are middle landscapes. In the mountain rises to 2000m.

**Trophic relations.** *Lathyrus incurvus*, *Vicia pannonica*, *Oxytropis pilosa*, *Torilis anthriscus*.

**Subgenus *Charitandrena* Hedicke, 1933**

Holarctic subgenus with two species. In Azerbaijan one species.



***Andrena (Charitandrena) hattorfiana (Fabricius, 1775)***

**Distribution.** All of Europe, except the extreme north, North Africa, Turkey, the Caucasus, Azerbaijan.

**Material.** Agdare (former Mardakert), Leninavan 21.07.1978, 1 ♀, KhA, Kusary, Laza, 2000 m., 20.08.1980, 14.08.1981, 2 ♀, KhA

**Remarks.** Lives in the foothills of the steppe and subalpine landscapes. In the mountains rising up to 2000 m a.s.l.

**Trophic relations.** *Carduus sp.*, *Senecio renifolius*.

**Subgenus *Scitandrena* Warncke, 1968**

South Palearctic subgenus with one species.

***Andrena (Scitandrena) scita Eversmann, 1852***

**Distribution.** Central and Southern Europe, Asia Minor, the Caucasus, Turkmenistan, Afghanistan.

**Material.** Nakhichevan, Dorosham, 05/30/1933, 1 ♀, AB, Karagachly, Samukh district, 03.06.1935, 2 ♀, MV, Mil steppe, 16-27.05.1934, 1 ♀ 2 ♂, A .B., Ganja, valley r.Gandzha- chay, 10.06.1933, 11 ♀ 1 ♂, MV, Kyurdamir, Kerrar, 23.04.1979, 1 ♂, KhA, Lerik, Galabyn, 1400m., 27.05.1983, 1 ♂, KhA, Lerik, Gilidara, 1700m., 20.05.1983, 1 ♂, KhA

**Remarks.** Lives in low-lying semi-arid, lowland steppe and steppe landscapes are middle in dry Habitats. In the mountain rises to 1700 m a.s.l.

**Trophic relations.** *Erucastrum armoracioides*, *Sisymbrium altissimum*, *Nonnea sp.*, *Achillea millifolium*, *Allium cepa*, *Medicago sp.*, *Berteroa incana*.

**Subgenus *Melanapis* Cameron, 1902**

South Palearctic subgenus with one species.

***Andrena (Melanapis) fuscata Erichson, 1835***

**Distribution.** Canary Islands, Mauritania, Algeria, Tunisia, Libya, Egypt, Spain, Italy, Switzerland, Austria, Poland, Ukraine, Israel, Cyprus, Turkey, Russia (Dagestan), Georgia, Azerbaijan, Iran, Turkmenistan, Tajikistan, Afghanistan, Pakistan, India.

**Material.** Lerik, Galabyn, 23.07.1976, 4 ♀, KhA, Lerik, Galabyn, 27.05.1983, 1 ♀, KhA, 06.07.1983, 1 ♀, KhA, Mil steppe, 19.04.1935, 1 ♂, AB, Altiaghac, 02.05.1980, 1 ♂, KhA, Ordubad, beat, 19.06.1980, 1 ♀, KhA, Oguz, 02.05.1987, 1 ♂, KhA ., Ordubad, Tiwi, 20.06.2007, 1 ♂, MM

**Remarks.** Inhabits from lowland semi-desert to the middle mountain steppe and forest landscapes. In the mountain rises to 1700 meters.

**Trophic relations.** *Sisymbrium officinale*, *Cardamine impatiens*, *Barbareae arcuata*, *Draba nemorosa*, *Genista transcaucasica*, *Valeriana leucophae*.

**Subgenus *Plastandrena* Hedicke, 1933**

Holarctic subgenus consists of 34 species. Azerbaijan has found 7 species.

***Andrena (Plastandrena) carbonaria (Linnaeus, 1767)***

**Distribution.** Very widespread species in the Palearctic.

**Material.** Mil steppe, 17-19.05.1935, 9 ♀ 1 ♂, AB, Kurt Mahmudlu, env. Karyagin (now Fizuli), 14.06.1929, 2 ♀ 1 ♀, AB, Ganja, 28.04.1933, 11 ♀ 1 ♂, MV, Gandja, 11.05.1933, 4 ♂, MV Baku, Surahani, 13.06.1933, 1 ♀, AB, Nakhichevan, Abrakunis, 16.05.1933, 5 ♀; Baku, 24.04.1937, 2 ♀ AB, Baku, Mardakan, 30.06.1939, 1 ♀, Mardakert (now Agdare) Metsshhen, 21.07.1978, 1 ♀, KhA, Eynaly, in Kazakh., 18.07.1927, 1 ♀, Alekseev, Agdam, 29.04.1969, 1 ♀, YM, Zengelan, Vejnali, 25.07.1978, 1 ♀, KhA, Lerik, Gilidara, 05/16/1976, 07/26/1976, 2 ♀ 3 ♂, KhA, Barda, 25.06.1969, 2 ♀, YM, Ucar, 19.06.1953, 1 ♀, N.Samedov, Nakhichevan, 04.05.1933, 1 ♀, AB .,

Vartashen (now Oguz), 23.07.1935, 1♂, AB, Lachin, Karykaha, 20.07.1978, 1♀, KhA, Ordubad, 11.07.1928, 1♀, Mammadov, Baku, Puta, 15.04.1935, 1♀ 1♂, Baku, Mashtaga, 14.04.1947, 1♂, AB, Mir-Bashir (now Tartar) Damirchilyar, 17.05.1979, 2♀, KhA, Shusha Gaybaly, 13.05.1980, 1♂, KhA, Agdash Turianchay State Reserve, 10.05.1992, 7♀, KhA

**Remarks.** Inhabits from lowland semi-to mid-mountain steppe and forest landscapes. In the mountains rising up to 1500 m a.s.l.

**Trophic relations.** *Nigella orientalis*, *Cerasus avium*, *Barbareae sp.*, *Malcolmia sp.*, *Leontice minor*, *Cydonia oblonga*, *Sorbus boissieri*, *Armeniaca sp.*, *Grossularia reclinata*, *Goebelia alopecuroides*, *Trigonella gladiata*, *Lavatera punctata*, *Erodium cicutarium*, *Euphorbia ispahanica*.

***Andrena (Plastandrena) crataegi* Robertson, 1893**

**Distribution.** USA, Azerbaijan.

**Material.** Sheki, Bash-Laisk, 03.05.1987, 1♂, KhA, Oguz, 02.05.1987, 1♂, KhA

**Remark.** Dwells in the low forest landscape on the fringe. In the mountains rising up to 900 m a.s.l. Marked the first time for the fauna of Azerbaijan.

**Trophic relations.** *Taraxacum sp.*

***Andrena (Plastandrena) bimaculata* (Kirby, 1802)**

**Distribution.** Morocco, Tunisia, all Europe, Middle and Central Asia and the Caucasus.

**Material.** Apsheron, Shuvelan, 20.03.1977, 2♂, KhA, Mil steppe, 17-19.- 4.1935, 6♂, AB, env. Lankaran, 16.06.1929, 1♂, E.Selivanchik, Ganja, 19.04.1933, 1♀, MV, Ordubad, beat, 14.06.1980, 1♀, KhA, Agdash, Turianchai State Reserve, 06.05.1992, 1♀, KhA

**Remarks.** Lives in low-lying semi-arid and sub-tropical, foothill steppe and steppe landscapes are middle. In the mountains rising up to 1400 m a.s.l.

**Trophic relations.** *Salix sp.*, *Tamarix sp.*, *Nonnea sp.*, *Amygdalus communis*, *Prunus spinosa*.

***Andrena (Plastandrena) ewersmanni* Radoszkowski, 1867**

**Distribution.** Caucasus, Kazakhstan, Mongolia, China.

**Material.** Baku, Shikhovo, 06.06.1081, 8♀, KhA

**Remarks.** Lives in low-lying semi-arid landscape in sandy habitats.

**Trophic relations.** *Taraxacum officinale*, *Capsella bursa pastoris*, *Tragopogon sp.*, *Teucrium polium*,

***Andrena (Plastandrena) mongolica* Morawitz, 1880**

**Distribution.** Turkey, Azerbaijan (Nakhichevan), Kazakhstan, Kyrgyzstan, Siberia, Mongolia, China.

**Material.** Ordubad, Bilav, 12.06.2012, 1♀ 1♂, KhA

**Remarks.** Lives in are middle steppe landscape. In the mountains rising up to 1400 m a.s.l.

**Trophic relations.** *Eryngium sp.*

***Andrena (Plastandrena) subconsobrina* Popov, 1949**

**Distribution.** Azerbaijan, Kazakhstan.

**Material.** Ganja, 10.04.1933, 1♂, AB, Lerik, Gosmolyan, 11.06.1996, 3♀, KhA

**Remarks.** Found in the foothills of the steppe and steppe landscapes are middle, lives in mesophytic habitats. In the mountain rises to 1600 meters.

**Trophic relations.** *Salix alba*, *Eryngium campestre*.

***Andrena (Plastandrena) tibialis* (Kirby, 1802)**

**Distribution.** The whole Palaearctic (from the UK to Japan).

**Material.** Nakhichevan, 07.05.1933, 1♀, AB, Talish, Alexeevka (now Burzhali), 4-28.04.1936, 2♀, AB, Kutkashen (now Gabala), 10.08.1935, 2♀, M.V., Ganja, 6-28.04.1933, 2♀ 1♂, MV, ibid, 8-14.06.1933, 2♀, MV, Mingechaur, 28.03.1946, 1♀1♂, AB, Samukh, Karagachly, 06.06.1935, 2♀, AB, Ordubad, Paragachay, 16.06.1980, 1♀, KhA, Ganja, valley R. Ganja-chay, 10.06.1933, 2♀, MV

**Remarks.** Occurs in subtropical lowland, foothill steppe, lowland steppe and forest, are middle of the steppe landscape in both dry and wet habitats. Often found in gardens. In the mountain rises to 1600 meters.

**Trophic relations.** *Cerasus avium*, *Eryngium nigromontanum*, *Zygophyllum fabago*, *Salix triandra*, *Echinophora trychophylla*, *Cotoniaster multifolia*, *Pyrus domestica*, *Malus sp.*, *Ribes orientale*, *Rosa sp.*, *Prunus communis*, *Padus rasemosa*, *Sisymbrium irio*.

Prospects of the studies on bee species *Andrena* is the identification and description of new species as well as adaptations of species to the different types of soils.

### CONCLUSIONS

An annotated checklist of 42 species of the bee genus *Andrena* belonging to 12 subgenera is given. The most species-rich subgenera are *Plastandrena* – 7, *Poecilandrena* – 6, *Lepidandrena* – 5, *Chlorandrena* – 5, *Nobadrena* – 5, *Truncandrena* – 5. Each species is supplied with date on landscape and khabitat preferences, as well as trophic relations. *Andrena panurgimorpha* Mavromoustakis, 1957, *A. potentillae* Panzer, 1809, *A. compta* Lepeletier, 1841 and *A. crataegi* Robertson, 1893 are recorded in Azerbaijan for the first time.

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