

## The Genus *Andrena* from Kazakhstan and Kyrgyzstan (Hymenoptera, Andrenidae) (2)

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## The Genus *Andrena* from Kazakhstan and Kyrgyzstan (Hymenoptera, Andrenidae) (2)

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**Abstract.** This is the second report of a taxonomic study of the genus *Andrena* collected by the Kyushu University Expedition in Kazakhstan and Kyrgyzstan in 2000 to 2004. Collection data obtained from Central Asia in Oberösterreichischen Landesuseum, Linz and the American Museum of Natural History, New York are added. In this paper twenty species of the genus *Andrena* from Kazakhstan and Kyrgyzstan are recorded.

**Key words:** taxonomy, Hymenoptera, Andrenidae, *Andrena*, Kazakhstan, Kyrgyzstan.

### INTRODUCTION

In the previous paper (Tadauchi, 2006) I recorded 10 species with redescription newly recorded from Kazakhstan by the Kyushu University Expedition in Kazakhstan and Kyrgyzstan, partly including collection of the Zoological Institute of Kazakhstan Academy of Sciences, Almaty. In this second report I record 20 species collected by the Kyushu University Expedition along with the collection obtained from Central Asia in Oberösterreichischen Landesuseum, Linz (OLML) and the American Museum of Natural History, New York (AMNH).

#### 11. *Andrena (Chlorandrena) humilis* Imhoff, 1832 (Figs. 1-2)

*Andrena humilis* Imhoff, 1832, Isis (Oken) Jena: 1201-1202 [female & male, Switzerland].

*Andrena scabrosa* Morawitz, 1866, Hor. Soc. Ent. Ross., 4: 12-13 [female, S. Europ. Russia].

*Andrena (Chlorandrena) humilis*: Warncke, 1967, Eos, Madr., 43: 35; Osytshnjuk, 1977, Fauna Ukraini, 12 (5): 50-52; Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 350-352; Osytshnjuk et al., 2005, Andrenidae Central & East. Palaearctic Part 1:

170-171.

Other synonymies: See Gusenleitner & Schwarz (2002).

*Specimens examined.* [KAZAKHSTAN] 9 females, Achisai, 670-700m, Mts. Karatau, S. Kazakhstan Prov., 4. vi. 2003 (K. Mitai); 6 females, Lake Charbarinskoe, Chordara, 180m, W of Tashkent, S. Kazakhstan Prov., 30. iv. 2004 (O. Tadauchi and R. Murao); 23 females, Polevod, riverside Syrdarya R., S. Kazakhstan Prov., 8. v. 2004 (O. Tadauchi and R. Murao); 1 female, Akkol-Talas, Jambul Prov., 14. v. 2004 (O. Tadauchi); 1 female, riverside Ili R., NW of Kapchagay, Almaty Prov., 19. v. 2004 (R. Murao). *Other than Kyushu University Expedition*: OLML. 1 female, Darbaza, 30 km NW Tashkent, 11. iv. 1992 (S. Bečvář).

[KYRGYZSTAN] *Other than Kyushu University Expedition*: AMNH. 13 females and 1 male, Chuy, Suusamyr Valley, W side Kichl-Kormdy R., 42°13'28" N 73°41'31"E, 2291m, 14. vi. 1999 (J. G. Rozen, J. K. Bouseman).

*Remarks.* This species is thought to be a European-Siberian element occurring from Europe to Central Asia. It mainly visits *Taraxacum* in Kazakhstan.

*Distribution.* Kazakhstan, Kyrgyzstan, Kaukasus, Asia Minor, European Russia, Europe, North Africa.

*Floral record in Kazakhstan.* *Traxacum* sp.

**12. *Andrena (Melanapis) fuscata*  
Erichson, 1835**  
(Figs. 3-4)

- Andrena fuscata* Erichson, 1835, in Walzl, Reise d. Tyrol u. dem südl. Spanien, 2: 103-104 [male, S. Spain].
- Andrena dagestanica* Radoszkowski, 1867, Hor. Soc. Ent. Ross., 5: 76 [female & male, Caucasus].
- Andrena turcestanica* Morawitz, 1876, in Fedtschenko, Izv. Imp. Obschch. Ljub. Estest. Antrop. Etnog.: 192-193 [female & male, Tajikistan].
- Andrena lepeletieri* var. *aschabadensis* Radoszkowski, 1893, Hor. Soc. Ent. Ross., 27: 56 [female, Turkmenistan].
- Melanapis violaceipennis* Cameron, 1902 (nec *Andrena violaceipennis* Dufour, 1841), J. Bombay Nat. Hist. Soc., 14: 422 [female & male, N. India: Himalaya].
- Melanapis rufifrons* Nurse, 1904, J. Nat. Bombay Hist. Soc., 15: 567-568 [female & male, Pakistan].
- Andrena rutila* ab. *carnea* Lebedev, 1933, Konowia, 12: 67 [female, Uzbekistan].
- Andrena rutila* ab. *zonaria* Lebedev, 1933, Konowia, 12: 67 [female & male, SE. Kazakhstan].
- Andrena (Melanapis) fuscata*: Warncke, 1967, Eos, Madr., 43: 55; Osytsnjuk, 1977, Fauna Ukraini, 12 (5): 101-103; Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 303-305.
- Other synonymies: See Gusenleitner & Schwarz (2002).

*Specimens examined.* [KAZAKHSTAN] 1 female, Kemertogan, Almaty Prov., 26. v. 2000 (A. Dawut); 1 female, Samsy, 750m, Almaty Prov., 28. v. 2000 (O. Tadauchi); 2 females, Nogaibay, 780m, Almaty Prov., 28. v. 2000 (A. Dawut); 1 female, Kantagi, 550-700m, near Kentau, Mts. Karatau, S. Kazakhstan Prov., 1. vi. 2003 (O. Tadauchi); 1 male, Achisai, 670-700m, Mts. Karatau, S. Kazakhstan Prov., 4. vi. 2003 (O. Tadauchi); 1 male, same locality and collector as above, 5. vi. 2003; 2 females, same locality and collector as above, 6. vi. 2003; 6 females and 1 male, Shayan-Birlik, S. Kazakhstan Prov., 8. vi. 2003 (K. Mitai); 4 females and 1 male, Jarekbas, near Shayan, S. Kazakhstan Prov., 8. vi. 2003 (O. Tadauchi); 2 females, Shayan, S. Kazakhstan Prov., 8. vi. 2003 (O. Tadauchi); 1 male, Birlik, S. Kazakhstan Prov., 8. vi. 2003 (O. Tadauchi); 3 females, Chordara, 200m, W of Tashkent, S. Kazakhstan Prov., 30. iv. 2004 (R. Murao); 1 female, Polevod, riverside Syrdarya R., S. Kazakhstan Prov., 8. v. 2004 (R. Murao); 1 male, Berkaza valley, 60km SW of Karatau City, Jambul Prov., 12. v. 2004 (R. Murao); 16 females and 2 males, NW of Tatti,

562-325m, Muyunkum desert, Jambul Prov., 15. v. 2004 (O. Tadauchi). *Other than Kyushu University Expedition*: OLML. 1 female and 1 male, Talas, Mt. R., 3km W Dzhabagly, 42°26'N 69°58'E, 5. viii. 2000 (Makogonova).

*Remarks.* This species is essentially thought to be a Mediterranean Basin element occurring from south Europe, North Africa, Asia Minor to Caspian Sea, extending to South Asia. We collected many specimens in semi-desert in Kazakhstan.

*Distribution.* Uzbekistan, Kazakhstan, Tajikistan, Turkmenistan, Caucasus, S. M. Europe, Asia Minor, Israel, India, Pakistan.

*Floral records in Kazakhstan.* *Brassica* sp., Cruciferae gen. et sp., Leguminosae gen. et ap., *Dianthus* sp.

**13. *Andrena (Plastandrena) eversmanni*  
Radoszkowski, 1867**  
(Figs. 5-6)

- Andrena eversmanni* Radoszkowski, 1867, Hor. Soc. Ent. Ross., 5: 74-75 [female & male, Kazakhstan]; Morawitz, 1890, Hor. Soc. Ent. Ross., 24: 357 [Mongolia].
- Andrena fasciata* Radoszkowski, 1876 (nec *Andrena fasciata* Fabricius, 1775, nec *Andrena fasciata* Imhoff, 1832, nec *Andrena fasciata* Nylander, 1852), Hor. Soc. Ent. Ross., 12: 83 [female & male, Caucasus].
- Andrena radoszkowskyi* Schmiedeknecht, 1884 (nec *Andrena radoszkowskii* Dalla Torre, 1896), Apid. Europ., 1: 694 (nom. nov. for *Andrena fasciata* Radoszkowski, 1876).
- Andrena (Plastandrena) eversmanni*: Popov, 1958, Trudy vses, Ent. Obschch., 46: 131, 140; Warncke, 1967, Eos, Madr., 43: 56; Xu & Tadauchi, 1997, J. Fac. Agr., Kyushu Univ., 41: 172-175 [redescription]; Gusenleitner & Schwarz, 2001, Entomofauna, 22: 293-294; Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 257-258.

*Specimens examined.* [KAZAKHSTAN] 36 females, Togusken, semi-desert near Janatas, S. Kazakhstan Prov., 7. vi. 2003 (O. Tadauchi and K. Mitai); 54 females and 5 males, W of Kamsomolskoe, Kyzylkum desert, S. Kazakhstan Prov., 1. v. 2004 (O. Tadauchi and R. Murao); 21 females and 1 male, Sutkent village, N. of Kamsomolskoe, S. Kazakhstan Prov., 3. v. 2004 (R. Murao); 21 females, hot spring, W of Kamsomolskoe, Kyzylkum desert, S. Kazakhstan Prov., 3. v. 2004 (O. Tadauchi and R. Murao); 4 females, Polevod, riverside Syrdarya R., S. Kazakhstan Prov., 8. v. 2004 (O. Tadauchi); 11 females, NW of Tatti, 462m, Muyunkum

desert, Jambul Prov., 15. v. 2004 (R. Murao); 1 female, Muyunkum-Kumozek 325m, Muyunkum desert, Jambul Prov., 16. v. 2004 (O. Tadauchi); 10 females, riverside Ili River, NW of Kapchagay, Almaty Prov., 19. v. 2004 (O. Tadauchi).

*Remarks.* This species is a small red *Plastandrena* and distributed in Caucasus to China and Mongolia. It mostly visits *Tamarix* flowers in semi-desert in Kazakhstan.

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

*Floral records in Kazakhstan.* This species mainly visits *Tamarix* sp. and *Salix* sp. in semi-desert.

#### 14. *Andrena (Plastandrena) bimaculata* (Kirby, 1802) (Figs. 7-8)

*Melitta bimaculata* Kirby, 1802, Monogr. Apum Angl., 2: 115-116 [male, England].

*Andrena consobrina* Eversmann, 1852, Bull. Soc. Nat. Moscou, 25: 30-31 [female, Europ. Russia].

*Andrena intermedia* Morawitz, 1870 (nec *Andrena intermedia* Thomson, 1870), Hor. Soc. Ent. Ross., 7: 321-322 [female, Europ. Russia].

*Andrena aulica* Morawitz, 1876, in Fedtschenko, Izv. Imp. Obschch. Ljubit. Estest. Antrop. Etnog.: 187-188 [female & male, Tajikistan].

*Andrena comparata* Morawitz, 1876, in Fedtschenko, Izv. Imp. Obschch. Ljubit. Estest. Antrop. Etnog.: 188 [male, Usbekistan].

*Andrena melanura* Morawitz, 1877, Hor Soc. Ent. Ross., 14: 82-83 [female, Caucasus].

*Andrena germabica* Radoszkowski, 1893, Hor Soc. Ent. Ross., 27: 56 [female & male, Trukmenistan].

*Andrena (Plastandrena) bimaculata*: Warncke, 1967, Eos, Madr., 43: 56; Osytsnjuk, 1977, Fauna Ukraini, 12 (5): 107-109; Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 130-133.

Other synonymies: See Gusenleitner & Schwarz (2002).

*Specimens examined.* [KAZAKHSTAN] 1 female, Jabagly, 1080-1200m, S. Kazakhstan Prov., 27. v. 2003 (O. Tadauchi); 10 females, Achisai, 670-700m, Mts. Karatau, S. Kazakhstan Prov., 4. vi. 2003 (O. Tadauchi); 7 females and 2 males, same locality as above, 5. vi. 2003 (O. Tadauchi and K. Mitai); 2 females, Achisai, 500-550m, Mts. Karatau, S. Kazakhstan Prov., 6. vi. 2003 (O. Tadauchi and K. Mitai); 2 females, Jabagly, 1180-1250m, S. Kazakhstan Prov., 14. vi. 2003 (K. Mitai). 2004: 5

females, W of Kamsomolskoe, Kyzylkum desert, N. of Chordara, S. Kazakhstan Prov., 1. v. 2004 (O. Tadauchi and R. Murao); 1 female, Polevod, riverside Syrdarya R., S. Kazakhstan Prov., 8. v. 2004 (R. Murao); 1 male, Jabagly, 1150-1250m, S. Kazakhstan Prov., 8. v. 2004 (V. Lina); 3 females, E and N of Boroldy village, Mts. Karatau, S. Kazakhstan Prov., 10. v. 2004 (O. Tadauchi and R. Murao); 1 female, riverside Ili River, NW of Kapchagay, Almaty Prov., 18. v. 2004 (R. Murao); 31 females and 1 male, riverside Ili River, NW of Kapchagay, Almaty Prov., 19. v. 2004 (O. Tadauchi and R. Murao). *Other than Kyushu University Expedition*: OLML. 1 female, Ili riv. area, Bakanas Distr., iv.-v. 2001 (Gurko).

[KYRGYZSTAN] *Other than Kyushu University Expedition*: AMNH. 1 male, Dzhahalabad, ca. jct. Kokenm & Kugan Rivers, 41°26'32"N 73°57'7"E, 1247m, 29. vi. 1999 (J. G. Rozen, J. K. Bouseman); 20 females, Naryn, N bank Naryn R., 12km W Ak-Tal-Tchal, 41°25'36" N 74°56'6"E, 1600m, 1. vii. 1999 (J. G. Rozen, J. K. Bouseman).

*Remarks.* This species is widely distributed from Europe, North Africa, Asia Minor to Central Asia. It is a relatively common species in Kazakhstan.

*Distribution.* Uzbekistan, Kazakhstan, Kyrgyzstan, Tajikistan, Trukmenistan, Caucasus, Iran, Iraq, Asia Minor, European Russia, Europe, North Africa.

*Floral records in Kazakhstan and Kyrgyzstan.* *Ferula tenuisecta*, *Rosa* sp., Umbelliferae gen. et sp.

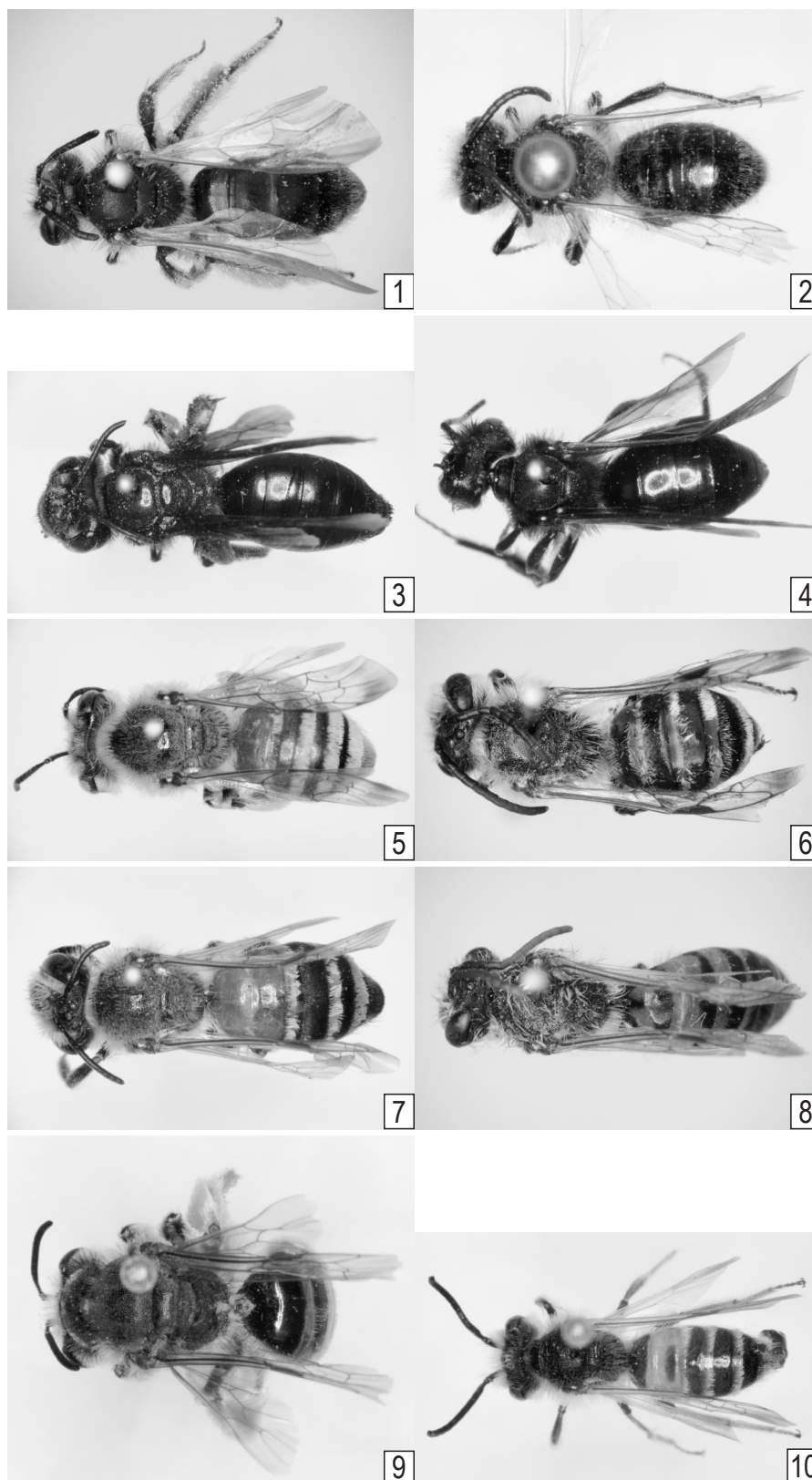
#### 15. *Andrena (Plastandrena) mongolica* Morawitz, 1880 (Figs. 9-10)

*Andrena mongolica* Morawitz, 1880, Bull. Acad. Imp. Sci. St. Petersburg, 26: 360-361 [female, Mongolia]; Morawitz, 1880, Melang. Biol., 10: 477 [Mongolia].

*Andrena (Plastandrena) mongolica*: Popov, 1949, Ent. Obozr., 30: 393 [female & male, Russia]; Xu & Tadauchi, 1997, J. Fac. Agr., Kyushu Univ., 41: 175-176 [redescription]; Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 490.

*Specimens examined.* [KAZAKHSTAN] *Other than Kyushu University Expedition*: OLML 2 females, Karatau, Kujuk, 24. vi. 1983 (Tkalcû); 1 male, Dzambul, 25. vi. 1983 (Tkalcû); 1 female, Dzambul, 27. vi. 1983 (Tkalcû); 1 male, Alma-Ata, 35km zap. Aksaj, 16. vii. 1981 (Kocourek); 4 males, Dzambul, Kara Tau, prusmyk Ujuk, 1000m, 3. vi. 1980 (Dr. Z. Pádr); 1 male, Alma-Arasan, vii. 1976 (Dr. Svozil).

[KYRGYZSTAN] *Other than Kyushu University*



**Figs. 1-10.** General habitus in dorsal view of *Andrena* spp. collected from Kazakhstan and Kyrgyzstan. 1: *A. (Chlorandrena) humilis* Imhoff, female, 2: the same, male, 3: *A. (Melanapis) fuscata* Erichson, female, 4: the same, male, 5: *A. (Plastandrena) eversmanni* Radoszkowski, female, 6: the same, male, 7: *A. (Plastandrena) bimaculata* (Kirby), female, 8: the same, male, 9: *A. (Plastandrena) mongolica* Morawitz, female, 10: the same, male.



*Expedition*: OLML. 1 male, Talasskaya Obl., Toktogul Stausee, 20km W Toktogul, 41°52' N 72°43'E, 950m, 1. od. 5. vi. 1995 (H. and R. Rausch, P. Ressler).

*Remarks*. This species is a large species having the reddened metasomal terga in part. This is the first record from Kazakhstan and Kyrgyzstan. It is thought to be a Turkmen (Western and Central Asian) element occurring in Central Asia..

*Distribution*. Kazakhstan (new record), Kyrgyzstan (new record), European Russia, Mongolia.

*Floral record*. Not available.

**16. *Andrena (Plastandrena) pilipes*  
Fabricius, 1781  
(Figs. 11-12)**

*Apis atra* Müller, 1776 (nec *Apis atra* Scopoli, 1763), Zool. Dan. Prodr.: 165 [female, Denmark].

*Andrena pilipes* Fabricius, 1781, Spec. Insect., 1: 474 [female, Italy]; Morawitz, 1880, Bull. Biol. Acad. Sci. St. Petersburg, 10: 479 [Mongolia].

*Andrena elongata* Radoszkowski, 1871 (nec *Andrena elongata* Imhoff, 1834), Hor. Soc. Ent. Ross., 8: 197 [female, NE Iran].

*Andrena dolorosa* Nurse, 1904, J. Bombay Nat. Hist. Soc., 15: 563 [female, Pakistan].

*Andrena (Plastandrena) carbonaria* ssp. *imamiana* Osytschnjuk, 1994, Vest. Zool., 1: 35 [female, Kazakhstan].

*Andrena (Plastandrena) pilipes*: Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 594-597.

Other synonymies: See Gusenleitner & Schwarz (2002).

*Specimens examined*. [KAZAKHSTAN] 4 females, Kemertogan, Almaty Prov., 26. v. 2000 (A. Dawut); 1 female, Kurday, 800m, Almaty Prov., 26. v. 2000 (A. Dawut); 2 females, Samsy, 750m, Almaty Prov., 28. v. 2000 (O. Tadauchi and A. Dawut); 6 females, Uzenagash, Almaty Prov., 28. v. 2000 (O. Tadauchi and A. Dawut); 1 female, Near Sternjak, Kokchetav District, N. Kazakhstan Prov., 17. vi. 2002 (V. Kazenas, A. Jdanko and V. Kascheev); 1 female, same locality and collector as above, 23. vi. 2002; 1 female, same locality and collector as above, 30. vi. 2002; 1 male, Ulken-Kaindy, 1800m, Jabagly, S. Kazakhstan Prov., 5. ix. 2002 (O. Tadauchi); 1 female and 1 male, Jabagly, 1080-1200m, S. Kazakhstan Prov., 27. v. 2003 (O. Tadauchi and K. Mitai); 2 females, Achisai, 670-700m, Mts. Karatau, S. Kazakhstan Prov., 4. vi. 2003 (O. Tadauchi); 11 females, same locality as above, 5. vi. 2003 (O. Tadauchi and K. Mitai); 1 female,

Achisai, 500-550m, Mts. Karatau, S. Kazakhstan Prov., 6. vi. 2003 (O. Tadauchi); 2 females, Shayan-Birlik, S. Kazakhstan Prov., 8. vi. 2003 (O. Tadauchi and K. Mitai); 1 female, Baijansai, 1030m, Mts. Karatau, S. Kazakhstan Prov., 9. vi. 2003 (O. Tadauchi); 1 female, Seslavino, 960m, Daubaba River, S. Kazakhstan Prov., 12. vi. 2003 (O. Tadauchi); 1 female, Aksu Valley, S. Kazakhstan Prov., 16. vi. 2003 (O. Tadauchi); 1 female, Polevod, riverside Syrdarya R., S. Kazakhstan Prov., 8. v. 2004 (O. Tadauchi); 1 female, Jabagly, 1150-1250m, S. Kazakhstan Prov., 8. v. 2004 (V. Lina); 2 males, 1180-1250m, S. Kazakhstan Prov., 11. v. 2004 (R. Murao); 1 female, riverside Chu R., Moyenkum, 480m, Jambul Prov., 17. v. 2004 (R. Murao); 7 females, riverside Ili River, NW of Kapchagay, Almaty Prov., 19. v. 2004 (O. Tadauchi and R. Murao); 1 female, Almaty-Big Almaty Lake, 1560-1360m, Almaty Prov., 22. v. 2004 (O. Tadauchi). *Other than Kyushu University Expedition*: AMNH. 1 male, Alma-Arasan, 15km S Alma-Ata, 43°2'N 76°8'E, 27. v. 1994 (K. Denes Jr.); OLML. 6 males, Ili riv. area, Bakanas Distr., iv. – v. 2001 (Gurko); 1 female and 4 males, Lake Alakol, Koktuma, 22. vi. 1995 (M. Múčka); 1 male, Kaptzagai, 100 km N Alma-Ata, 18. vi. 1995 (M. Múčka); 1 male, Dzhaniybek, 21-27. vi. 1999 (J. Miatleuski); 1 female and 1 male, Rym-Kum steppe, NW Kandagash, vi. 2000 (J. Miatleuski).

[KYRGYZSTAN] 1 female, Issyk-ata, 1300m, 27. v. 2000 (O. Tadauchi); 1 female, Semenovka, 1700m, N of Lake Issik-Kol, 24. viii. 2004 (O. Tadauchi). *Other than Kyushu University Expedition*: AMNH. 12 females, Dzhalalabad, ca. jct. Kara Kysmak and Chatkal R. 42°4'0" N 71°35'41"E, 2240m, 19. vi. 1999 (J. G. Rozen, J. K. Bouseman); 1 female, Dzhalalabad, Chandalash R., 6km N jct Chalkal R., 41°44'19" N 70°52'22"E, 1630m, 21. vi. 1999 (J. G. Rozen, J. K. Bouseman); 1 female, Osh, Karakuldzha, Lajsu Ravine, 40°31'20"N 73°37'10"E, 1815m, 25. vi. 1999 (J. G. Rozen, J. K. Bouseman).

*Remarks*. This species is widely distributed from Europe, North Africa, Asia Minor to Central Asia, extending to South Asia and Far East Asia, thought to be a European- Siberian element. It has two generations a year.

*Distribution*. Uzbekistan, Kazakhstan, Kyrgyzstan, Iran, Caucasus, Asia Minor, European Russia, Russian Far East, Europe, North Africa, Pakistan, India.

*Floral records in Kazakhstan and Kyrgyzstan*. *Brassica* sp., Leguminosae gen. et sp., *Mentha asiatica*, *Rhamnus cathartica*, *Ferula tenuisecta*, *Achilleaiebersteinii*, Cruciferae gen. et sp.

**17. *Andrena (Plastandrena) tibialis*  
(Kirby, 1802)  
(Figs. 13-14)**

*Melitta tibialis* Kirby, 1802, Monogr. Apum Angl., 2: 107-108 [female, England].

*Andrena fulvitaris* Eversmann, 1852 (nec *Andrena fulvitaris* Brullé, 1832), Bull. Soc. Nat. Moscou, 25: 14 [female, Europ. Russia].

*Andrena ambigua* Eversmann, 1852, Bull. Soc. Nat. Moscou, 25: 16 [male, Europ. Russia].

*Andrena (Plastandrena) tibialis*: Warncke, 1967, Eos, Madr., 43: 56; Osytsnjuk, 1977, Fauna Ukraini, 12 (5): 105-107; Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 761-764.

Other synonymies: See Gusenleitner & Schwarz (2002).

*Specimens examined*. [KAZAKHSTAN] 14 females, Achisai, 670-700m, Mts. Karatau, S. Kazakhstan Prov., 4. vi. 2003 (K. Mitai); 3 females, Kemertogan, Almaty Prov., 26. v. 2000 (A. Dawut); 1 male, Kurday, 800m, Almaty Prov., 26. v. 2000 (A. Dawut); 18 females, Kurday, 880m, Almaty Prov., 26. v. 2000 (A. Dawut); 1 female, Uzenagash, Almaty Prov., 28. v. 2000 (O. Tadauchi); 2 females, Degeres, 850m, Almaty Prov., 28. v. 2000 (O. Tadauchi and A. Dawut); 1 female, Near Sternjak, Kokchetav District, N. Kazakhstan Prov., 16. vi. 2002 (V. Kazenas, A. Jdanko and V. Kascheev); 1 male, same data and collector as above, 25. vii. 2002. *Other than Kyushu University Expedition*: OLML. 5 females, Lake Alakol, Kaktuma, 22. vi. 1995 (M. Múčka).

[KYRGYZSTAN] 1 female, Bishkek City, 27. v. 2000 (A. Dawut); 9 females and 1 male, Bishkek City, 28. v. 2000 (O. Tadauchi and A. Dawut). *Other than Kyushu University Expedition*: AMNH. 2 females, Chuy, Boom, Ravine 3km N Kyz-Kujo, 42°39'28" N 75°53'9"E, 1380m, 6. vii. 1999 (J. G. Rozen, J. K. Bouseman).

*Remarks*. This species is thought to be a European-Siberian element occurring from Europe to Central Asia, extending to Russian Far East.

*Distribution*. Kazakhstan, Kyrgyzstan, Kaukasus, Asia Minor, European Russia, Russian Far East, Europe.

*Floral record in Kazakhstan*. *Ferula tenuisecta*.

**18. *Andrena (Trachandrena) discophora*  
Morawitz, 1876  
(Figs. 15-16)**

*Andrena discophora* Morawitz, 1876, in Fedtschenko, Izv. Imp. Obschch. Ljubit. Estest. Antrop. Etnog.:

202-203 [female & male, Uzbekistan].

*Andrena corallina* Morawitz, 1876, in Fedtschenko, Izv. Imp. Obschch. Ljubit. Estest. Antrop. Etnog.: 203-204 [female, Tajikistan].

*Andrena rufipes* Friese, 1922 (nec *Andrena rufipes* Fabricius, 1793), Konowia, 1: 217 [female, Turkestan].

*Andrena (Trachandrena) discophora*: Gusenleitner & Schwarz, 2001, Entomofauna, 22: 118-119, Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 228.

*Specimens examined*. [KAZAKHSTAN] *Other than Kyushu University Expedition*: OLML. 60 females and 15 males, Ili riv. area, Bakanas Distr., iv.-v. 2001 (Gurko).

*Remarks*. This species is a small *Trachandrena* having the red metasomal terga only known from Central Asia. This is the first record from Kazakhstan. It is thought to be a Turkmen (Western and Central Asian) element.

*Distribution*. Uzbekistan, Kazakhstan (new record), Tajikistan.

*Floral record*. Not available.

**19. *Andrena (Campylogaster) lateralis*  
Morawitz, 1876  
(Fig. 17)**

*Andrena lateralis* Morawitz, 1876, in Fedtschenko, Izv. Imp. Obschch. Ljubit. Estest. Antrop. Etnog.: 200-201 [female & male, Tajikistan].

*Andrena arenaria* Morawitz, 1876, in Fedtschenko, Izv. Imp. Obschch. Ljubit. Estest. Antrop. Etnog.: 201 [male, S. Kazakhstan].

*Andrena octomaculata* Pérez, 1887, Revue Ent., 6: 175-176 [male, Israel].

*Andrena sexmaculata* Friese, 1923, Zool. Jb. (Syst.), 46: 205 [female, S. Jugoslavia].

*Andrena concava* Lebedev. 1932, Konowia, 11: 68-69 [male, Uzbekistan].

*Andrena (Campylogaster) lateralis*: Warncke, 1967, Eos, Madr., 43: 73; Gusenleitner & Schwarz, 2001, Entomofauna, 22: 135-136, Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 415-416; Osytsnjuk et al., 2005, Andrenidae Central & East. Palaearctic Part 1: 144-145.

*Specimens examined*. [KAZAKHSTAN] 1 female, Samsy, 750m, Almaty Prov., 28. v. 2000 (A. Dawut); 1 female, Jabagly, 1180-1250m, S. Kazakhstan Prov., 28. v. 2003 (O. Tadauchi); 1 female, Kantagi, 550-700m, near Kentau, Mts. Karatau, S. Kazakhstan Prov., 1. vi. 2003 (K. Mitai); 2 females, Achisai, 670-700m, Mts. Karatau,

S. Kazakhstan Prov., 4. vi. 2003 (O. Tadauchi and K. Mitai); 7 females, Achisai, 670-700m, Mts. Karatau, S. Kazakhstan Prov., 5. vi. 2003 (O. Tadauchi and K. Mitai); 1 female, Baijansai, 1030m, Mts. Karatau, S. Kazakhstan Prov., 9. vi. 2003 (K. Mitai); 1 female, N of Boroldy village, Mts. Karatau, S. Kazakhstan Prov., 10. v. 2004 (O. Tadauchi); 2 females, riverside Ili River, NW of Kapchagay, Almaty Prov., 19. v. 2004 (O. Tadauchi).

*Remarks.* This species was originally described from Central Asia and has known from Asia Minor to South Europe.

*Distribution.* Uzbekistan, Kazakhstan, Kyrgyzstan, Tajikistan, Armenia, Azerbaijan, Turkmenistan, Iran, Asia Minor, Israel, old Yugoslavia, Greece, Spain, Portugal.

*Floral records in Kazakhstan.* *Ferula tenuisecta*, Curciferaceae gen. et sp., *Brassica* sp., Umbelliferae gen. et sp.

## 20. *Andrena (Holandrena) labialis* (Kirby, 1802) (Figs. 18-19)

*Melitta labialis* Kirby, 1802 (nec *Andrena labialis*, Gravenhorst, 1807), Monogr. Apum Angl., 2: 148-149 [male, England].

*Andrena (Holandrena) labialis*: Warncke, 1967, Eos, Madr., 43: 75; Osytshnjuk, 1977, Fauna Ukraini, 12 (5): 174-177; Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 110-112.

Other synonymies: See Gusenleitner & Schwarz (2002).

*Specimens examined.* [KAZAKHSTAN] 3 females and 1 male, Almaty City, Almaty Prov., 24. v. 2000 (O. Tadauchi); 1 male, Degeres, 850m, Almaty Prov., 28. v. 2000 (A. Dawut); 1 female and 2 males, Almaty City, Almaty Prov., 29. v. 2000 (O. Tadauchi and A. Dawut); 1 female, Near Sternjak, Kokchetav District, N. Kazakhstan Prov., 23. vi. 2002 (V. Kazenas, A. Jdanko and V. Kascheev); 1 female, same locality and collector as above, 30. vi. 2002; 8 males, Jabagly, 1080-1200m, S. Kazakhstan Prov., 27. v. 2003 (O. Tadauchi and K. Mitai); 4 females, Shayan-Birlik, S. Kazakhstan Prov., 8. vi. 2003 (O. Tadauchi and K. Mitai); 10 females, Baijansai, 1030m, Mts. Karatau, S. Kazakhstan Prov., 9. vi. 2003 (O. Tadauchi and K. Mitai); 2 females and 5 males, Karaalma, 1210m, near Jabagly, S. Kazakhstan Prov., 17. vi. 2003 (O. Tadauchi and K. Mitai); 2 females and 11 males, Kamsomolskoe, N. of Chordara, S. Kazakhstan Prov., 1. v. 2004 (O. Tadauchi and R. Murao); 4 females and 25

males, Sutkent village, N. of Kamsomolskoe, S. Kazakhstan Prov., 3. v. 2004 (O. Tadauchi and R. Murao); 1 female, riverside Ili River, NW of Kapchagay, Almaty Prov., 19. v. 2004 (O. Tadauchi). *Other than Kyushu University Expedition*: AMNH. 24 females, and 1 male, Kapczagai, 60 km N Alma Ata, 43.9°N76.8°E, 26. v. 1994 (K. Denes Jr.); 5 males, Alma- Arasan, 15km S Alma-Ata, 43.2°N76.8°E, 27. v. 1994 (K. Denes Jr.). OLML. 1 male, Georgievka, 75.6°- 43.2°, 16. vi. 1995 (J. Halada); 5 females and 1 male, Mts. Isyk- Ata Distr., 27. v. 2001 (Gurko); 1 female, Dzambul env., Kara Tau Pruamyk Ujuk, 1000m, 3. vi. 1980 (Dr. Z. Pádr); 1 male, Issik 3km S, 22-23. vi. 1992 (K. Denes); 1 female, Karatau, Kujuk, 24. vi. 1983 (Tkalčû); 1 female, Alma-Ata, 2800m, Alma-Arasan, 5. vii. 1981 (L. Hlaváčková).

[KYRGYZSTAN] *Other than Kyushu University Expedition*: AMNH. 1 male, Dzhahalalabad, ca. jct. Kara Kysmak and Chatkal R. 42°4'0" N71°35'41"E, 2240m, 19. vi. 1999 (J. G. Rozen, J. K. Bouseman); 1 female, Dzhahalalabad, Chandalash R., 6km N jct Chatkal R., 41°44'19" N70°52'22"E, 1630m, 20. vi. 1999 (J. G. Rozen, J. K. Bouseman); 1 male, Naryn, S. slope Moldo-Too Ridge, E. Kara-Go Pass, 41°30'22" N74°44'11"E, 2260m, 30. vi. 1999 (J. G. Rozen, J. K. Bouseman); 3 males, Chuy, Boom, Ravine 3km N Kyz-Kujo, 42°39'28" N75°53'9"E, 1380m, 6. vii. 1999 (J. G. Rozen, J. K. Bouseman). OLML. 1 female and 1 male, Mts., Isyk- Ata, Distr., 27. v. 2001 (Gurko).

*Remarks.* This species is widely distributed from Europe, North Africa, Asia Minor to Central Asia. It is a relatively common species visiting various flowers in Kazakhstan and Kyrgyzstan.

*Distribution.* Kazakhstan, Kyrgyzstan, middle and near East, Asia Minor, Europe, European Russia, North Africa.

*Floral records in Kazakhstan and Kyrgyzstan.* *Taraxacum* sp., *Brassica* sp., *Achillea* sp., *Triforium repens*, *Tamarix* sp., *Onobrychis arenaria*.

## 21. *Andrena (Zonandrena) flavipes* Panzer, 1799 (Figs. 20-21)

*Andrena flavipes* Panzer, 1799, Faun. Insect. German., 64: 20 [female, Austria].

*Andrena levilabris* Cameron, 1908, J. Bombay nat. Hist. Soc., 18: 308-309 [female, NW India].

*Andrena punjaubensis* Cameron, 1909, J. Bombay nat. Hist. Soc., 19: 130-131 [female, NW India].

*Andrena kengracensis* Cockerell, 1930, Ann. Mag. Nat. Hist., (10) 5: 113-114 [female, Uzbekistan].

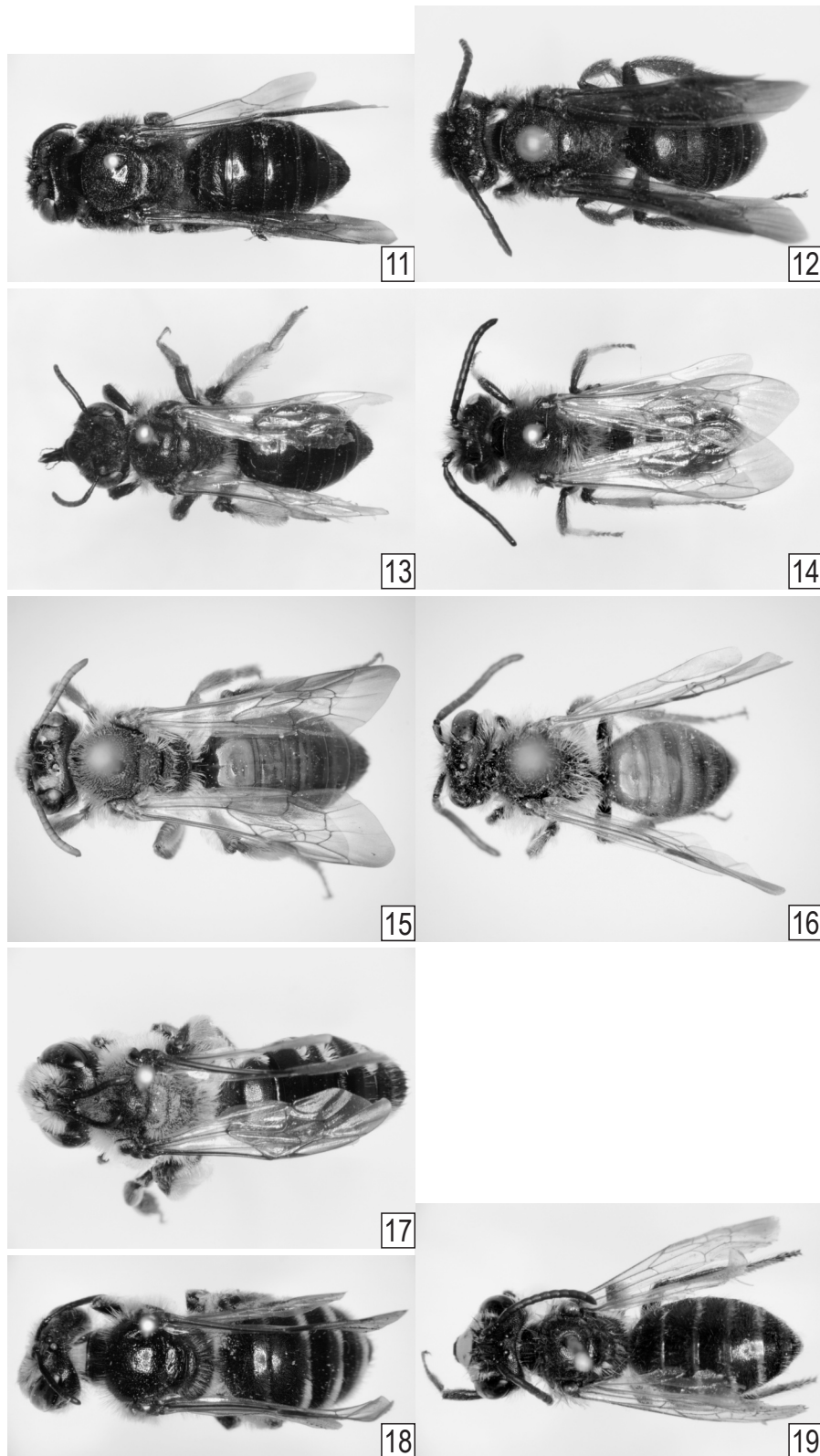


*Andrena (Zonandrena) flavipes*: Warncke, 1967, Eos, Madr., 43: 79; Osytsnjuk, 1977, Fauna Ukraini, 12 (5): 182-185; Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 274-276; Tadauchi & Matsumura, 2007, Esakia, (47): 1-2 [Nepal]; Xu & Tadauchi, 2008, J. Fac. Agr., Kyushu Univ., 53: 65-66 [China].

Other synonymies: See Gusenleitner & Schwarz (2002).

*Specimens examined*. [KAZAKHSTAN] 1 female, Medew, Almaty Prov., 24. v. 2000 (O. Tadauchi); 1 female, Panpilof Park, Almaty City, Almaty Prov., 25. v. 2000 (O. Tadauchi); 149 females and 22 males, Kemertogan, Almaty Prov., 26. v. 2000 (O. Tadauchi and A. Dawut); 5 females, Fabrichini, 850 m, Almaty Prov., 26. v. 2000 (O. Tadauchi); 3 females and 3 males, Kurday, 800m, Almaty Prov., 26. v. 2000 (A. Dawut); 18 females, Kurday, 880m, Almaty Prov., 26. v. 2000 (A. Dawut); 36 females and 6 males, Uzenagash, Almaty Prov., 28. v. 2000 (O. Tadauchi and A. Dawut); 2 females, Kurday, 880m, Almaty Prov., 28. v. 2000 (A. Dawut); 27 females, Nogaibay, 780 m, Almaty Prov., 28. v. 2000 (O. Tadauchi and A. Dawut); 2 females, Samsy, 750m, Almaty Prov., 28. v. 2000 (A. Dawut); 4 females and 1 male, Degeres, 850m, Almaty Prov., 28. v. 2000 (O. Tadauchi); 10 females and 1 male, Almaty City, Almaty Prov., 29. v. 2000 (O. Tadauchi and A. Dawut); 1 female and 1 male, Near Sternjak, Kokchetav District, N. Kazakhstan Prov., 19. vi. 2002 (V. Kazenas, A. Jdanko and V. Kascheev); 1 female, Nat. border, Chenjaevka, S. Kazakhstan Prov., 26. v. 2003 (O. Tadauchi); 7 females and 3 males, Jabagly, 1080-1200m, S. Kazakhstan Prov., 27. v. 2003 (O. Tadauchi and K. Mitai); 8 females and 3 males, Jabagly, 1180-1250m, S. Kazakhstan Prov., 28. v. 2003 (O. Tadauchi and K. Mitai); 68 females and 3 males, East of Chimbent, 570m, S. Kazakhstan Prov., 30. v. 2003 (O. Tadauchi and K. Mitai); 5 females, Kogam, 250m, near Otar, S. Kazakhstan Prov., 31. v. 2003 (O. Tadauchi); 1 female, Kantagi, 550-700m, near Kentau, Mts. Karatau, S. Kazakhstan Prov., 1. vi. 2003 (K. Mitai); 1 female, same locality as above, 2. vi. 2003 (O. Tadauchi); 7 females, Achisai, 670-700m, Mts. Karatau, S. Kazakhstan Prov., 4. vi. 2003 (O. Tadauchi and K. Mitai); 18 females, same locality and collector as above, 5. vi. 2003; 3 females, same locality and collector as above, 6. vi. 2003; 1 female, Janatas, S. Kazakhstan Prov., 7. vi. 2003 (O. Tadauchi); 4 females and 1 male, Shayan-Birlik, S. Kazakhstan Prov., 8. vi. 2003 (O. Tadauchi and K. Mitai); 7 females, Baijansai, 1030m, Mts. Karatau, S. Kazakhstan Prov., 9. vi. 2003 (O. Tadauchi and K. Mitai); 1 female,

Jarekbas, near Shayan, S. Kazakhstan Prov. (O. Tadauchi); 1 female, Seslavino, 960m, Daubaba River, S. Kazakhstan Prov., 11. vi. 2003 (O. Tadauchi); 90 females and 1 male, Daubaba, 700m, S. Kazakhstan Prov., 13. vi. 2003 (O. Tadauchi and K. Mitai); 1 female, Seslavino, 960m, Daubaba, River, S. Kazakhstan Prov., 13. vi. 2003 (K. Mitai); 3 females, Jabagly, 1180-1250m, S. Kazakhstan Prov., 14. vi. 2003 (O. Tadauchi and K. Mitai); 3 males, Kashi-Kaindy, 1700m, Jabagly, S. Kazakhstan Prov., 15. vi. 2003 (O. Tadauchi and K. Mitai); 1 female and 1 male, Aksu Valley, S. Kazakhstan Prov., 16. vi. 2003 (O. Tadauchi and K. Mitai); 5 females, Chordara, 200m, W of Tashkent, S. Kazakhstan Prov., 30. iv. 2004 (O. Tadauchi and R. Murao); 69 females and 55 males, Kamsomolskoe, N. of Chordara, S. Kazakhstan Prov., 1. v. 2004 (O. Tadauchi and R. Murao); 11 females, Jabagly, 1150-1250m, S. Kazakhstan Prov., 1. v. 2004 (V. Lina); 69 females and 3 males, Jabagly, 1150-1250m, S. Kazakhstan Prov., 3. v. 2004 (O. Tadauchi and V. Lina); 13 females and 7 males, Sutkent village, N. of Kamsomolskoe, S. Kazakhstan Prov., 3. v. 2004 (R. Murao); 19 females, Polevod, riverside Syrdarya R., S. Kazakhstan Prov., 8. v. 2004 (O. Tadauchi and R. Murao); 1 male, Jabagly, 1150-1250m, S. Kazakhstan Prov., 8. v. 2004 (V. Lina); 38 females and 4 males, E and N of Boroldy village, Mts. Karatau, S. Kazakhstan Prov., 10. v. 2004 (O. Tadauchi and R. Murao); 4 females and 4 males, 1180-1250m, S. Kazakhstan Prov., 11. v. 2004 (O. Tadauchi and R. Murao); 6 females and 1 male, Berkaza valley, 60km SW of Karatau City, Jambul Prov., 12. v. 2004 (R. Murao); 44 females and 8 males, Cordai, 680m, Jambul Prov., 17. v. 2004 (O. Tadauchi and R. Murao); 22 females and 2 males, Moyenkum-Chu, Jambul Prov., 17. v. 2004 (O. Tadauchi and R. Murao); 2 females and 1 male, riverside Ili River, NW of Kapchagay, Almaty Prov., 19. v. 2004 (R. Murao); 4 females and 1 male, Medau, 1600m, Almaty Prov., 21. v. 2004 (O. Tadauchi and R. Murao); 1 female, Almaty-Big Almaty Lake, 1560-1360m, Almaty Prov., 22. v. 2004 (O. Tadauchi). *Other than Kyushu University Expedition*: OLML. Some of the specimens cited. 1 female, Novovaskresonovka, 40km E Merke, 4. v. 1994 (J. Halada); 48 females and 75 males, Georgievka, 75.6°-43.2°, 16. vi. 1995 (M. Múčka); 1 female, Kaptzagai, 100 km N Alma-Ata, 18. vi. 1995 (M. Múčka); 53 females and 14 males, Lake Alakol, Koktuma, 22. vi. 1995 (M. Múčka); 3 females and 1 male, Dzhungarskij, Ala-Tau, Koksu fl., Rudnicnyj, 23. v. 1991 (Benes); 1 male, Dzhaniybek, 21-27. vi. 1999 (J. Miatleuski); 3 males, Taldy-Kurgan reg., E-Kazakhstan, vi. 2000 (Gurko); 19 females and 49 males, Ili riv. area, Bakanas Distr., iv-v. 2001 (Gurko); 4 females, Talas, Mt. R., 3km W Dzhabagly,



**Figs. 11-19.** General habitus in dorsal view of *Andrena* spp. collected from Kazakhstan and Kyrgyzstan. 11: *A. (Plastandrena) pilipes* Fabricius, female, 12: the same, male, 13: *A. (Plastandrena) tibialis* (Kirby), female, 14: the same, male, 15: *A. (Trachandrena) discophora* Morawitz, female, 16: the same, male, 17: *A. (Camylogaster) lateralis* Morawitz, female, 18: *A. (Holandrena) labialis* (Kirby), female, 19: the same, male.

42°26'N 69°58'E, 5. viii. 2000 (Makogonova).

[KYRGYZSTAN] 18 females and 10 males, Issyk-ata, 1300m, 27. v. 2000 (O. Tadauchi and A. Dawut); 3 females, Krasnayarichika, 800m, 27. v. 2000 (A. Dawut); 1 male, Bishikek, 27. v. 2000 (A. Dawut); 138 females and 3 males, Bishikek, 28. v. 2000 (O. Tadauchi and A. Dawut); 1 female, Semenovka, 1700m, N of lake Issyk-Kol, 24. viii. 2004 (O. Tadauchi); 1 female and 1 male, Chon-Akusu, 1700m, N of lake Issyk-Kol, 24. viii. 2004 (O. Tadauchi); 1 female, Arashan, 1850m, near Karakol, E of lake Issyk-Kol, 25. viii. 2004 (O. Tadauchi); 1 female, Tamga, 1580m, S of lake Issyk-Kol, 26. viii. 2004 (O. Tadauchi). *Other than Kyushu University Expedition*: AMNH. 1 female and 2 males, Chuy, Boom, Ravine 3km N Kyz-Kujo, 42°39'28" N 75°53'9"E, 1380m, 6. vii. 1999 (J. G. Rozen, J. K. Bouseman); 1 female, Osh, Karakuldzha, Lajsu Ravine, 40°31'20" N 73°71'0"E, 1815m, 25. vi. 1999 (J. G. Rozen, J. K. Bouseman); 1 male, Dzhallal Abad, 10 km W Dzhallal- Abad, 40°55'57" N 72°53'35"E, 840m, 27. vi. 1999 (J. G. Rozen, J. K. Bouseman).

*Remarks.* This is a widely distributed species from Europe, North Africa to Central Asia, extending to China. It is the most common species in the genus *Andrena* and thought to be the most important pollinator for *Brassica* in spring in Kazakhstan and Kyrgyzstan. It has two generations a year.

*Distribution.* Kazakhstan, Kyrgyzstan, Uzbekistan, Nepal, India, China, European Russia, Asia Minor, Middle and Near East, Europe, North Africa.

*Floral records in Kazakhstan and Kyrgyzstan.* *Brassica* sp., *Crataegus* sp., *Taraxacum* sp., Leguminosae gen. et sp., *Achillea* sp., *Trifolium repens*, *Bellis perennis*.

## 22. *Andrena (Taeniandrena) ovatula* (Kirby, 1802) (Figs. 22-23)

*Melitta ovatula* Kirby, 1802, Monogr. Apum Angl., 2: 149-150 [female, England].

*Andrena ovatula*: Stockhert, 1930, in Nord-und Mitteleurop., 936, 986 [female & male, in key]; Alfken, 1929, Verh. Zool-Bot. Ges. Wien., 79: 333 [China].

*Andrena hirticeps* Eversmann, 1852, Bull. Soc. Nat. Moscou, 25: 17 [male, Europ. Russia].

*Andrena interrupta* Eversmann, 1852, Bull. Soc. Nat. Moscou, 25: 23 [female, Europ. Russia].

*Andrena (Taeniandrena) ovatula* ssp. *transcaspiensis* Osytshnjuk, 1994, Vest. Zool., 1: 32 [female, Kazakhstan].

*Andrena (Taeniandrena) ovatula*: Warncke, 1967, Eos, Madr., 43: 80; Osytshnjuk, 1977, Fauna Ukraini, 12 (5): 187-191; Osytshnjuk, 1995, Key Insects Russian Far East, Vol. 4, Part 1, 506, 523; Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 564-566.

Other synonymies: See Gusenleitner & Schwarz (2002).

*Specimens examined.* [KAZAKHSTAN] 5 females, Almaty City, Almaty Prov., 24. v. 2000 (O. Tadauchi); 2 females, Panpilof Park, Almaty City, Almaty Prov., 25. v. 2000 (O. Tadauchi and A. Dawut); 2 females, Kemertogan, Almaty Prov., 26. v. 2000 (A. Dawut); 1 female, Fabrichini, 850 m, Almaty Prov., 26. v. 2000 (O. Tadauchi); 1 female, Kurday, 800m, Almaty Prov., 26. v. 2000 (A. Dawut); 1 female, Uzenagash, Almaty Prov., 28. v. 2000 (A. Dawut); 4 females, Degerees, 850m, Almaty Prov., 28. v. 2000 (O. Tadauchi and A. Dawut); 1 female and 1 male, Nat. border, Chernjaevka, S. Kazakhstan Prov., 26. v. 2003 (K. Mitai); 2 females and 2 males, Jabagly, 1080-1200m, S. Kazakhstan Prov., 27. v. 2003 (O. Tadauchi and K. Mitai); 17 females and 1 male, East of Chimkent, 570m, S. Kazakhstan Prov., 30. v. 2003 (O. Tadauchi and K. Mitai); 5 females, Kogam, 250m, near Otar, S. Kazakhstan Prov., 31. v. 2003 (O. Tadauchi); 1 female, Achisai, 500-550m, Mts. Karatau, S. Kazakhstan Prov., 6. vi. 2003 (K. Mitai); 3 females, Janatas, S. Kazakhstan Prov., 7. vi. 2003 (O. Tadauchi); 2 females, Shayan-Birlik, S. Kazakhstan Prov., 8. vi. 2003 (K. Mitai); 1 female, Jarekbas, near Shayan, S. Kazakhstan Prov., 8. vi. 2003 (O. Tadauchi); 1 female and 6 males, Baijansai, 1030m, Mts. Karatau, S. Kazakhstan Prov., 9. vi. 2003 (O. Tadauchi and K. Mitai); 1 female, Daubaba, 700m, S. Kazakhstan Prov., 13. vi. 2003 (K. Mitai); 5 females and 2 males, Karaalma, 1210m, near Jabagly, S. Kazakhstan Prov., 17. vi. 2003 (O. Tadauchi and K. Mitai); 80 females and 24 males, Kamsomolskoe, W of Chordara, S. Kazakhstan Prov., 1. v. 2004 (O. Tadauchi); 1 female, Kamsomolskoe, W of Chordara, S. Kazakhstan Prov., 2. v. 2004 (R. Murao); 71 females and 17 males, Sutkent village, N. of Kamsomolskoe, S. Kazakhstan Prov., 3. v. 2004 (O. Tadauchi and R. Murao); 9 females and 1 male, Hot spring, W of Kamsomolskoe, Kyzylkum desert, S. Kazakhstan Prov., 3. v. 2004 (O. Tadauchi and R. Murao); 35 females, Polevod, riverside Syrdarya R., S. Kazakhstan Prov., 8. v. 2004 (O. Tadauchi and R. Murao); 3 females and 1 male, E and N of Boroldy village, Mts. Karatau, S. Kazakhstan Prov., 10. v. 2004 (O. Tadauchi and R. Murao); 7 females, Cordai, 680m, Jambul Prov., 17. v. 2004 (O. Tadauchi and R. Murao). *Other than Kyushu University Expedition*: OLML. 1 female, Novovaskresonovka,



40km E Merke, 4. v. 1994 (J. Halada); 48 females and 75 males, Georgievka, 75.6°- 43.2°, 16. vi. 1995 (M. Múčka); 1 female, Kaptzagai, 100 km N Alma-Ata, 18. vi. 1995 (M. Múčka); 53 females and 14 males, Lake Alakol, Koktuma, 22. vi. 1995 (M. Múčka); 3 females and 1 male, Dzhungarskij, Ala-Tau,, Koksu fl., Rudnicnyij, 23. v. 1991 (Benes); 1 male, Dzhaniybek, 21-27. vi. 1999 (J. Miatleuski); 3 males, Taldy-Kurgan reg., E- Kazakhstan, vi. 2000 (Gurko); 19 females and 49 males, Ili riv. area, Bakanas Distr., iv.-v. 2001 (Gurko); 4 females, Talas, Mt. R., 3km W Dzhabyagly, 42°26'N 69°58'E, 5. viii. 2000 (Makogonova).

[KYRGYZSTAN] 6 females, Bishkek City, 27. v. 2000 (O. Tadauchi and A. Dawut); 1 female, Issyk-ata, 1300m, 27. v. 2000 (A. Dawut); 4 females, Bishkek City, 28. v. 2000 (O. Tadauchi and A. Dawut); 2 females, Semenovka, 1700m, N of lake Issyk-Kol, 24. viii. 2004 (O. Tadauchi); Arashan, 1850m near Karakol, E of Lake Issyk-Kol, 25. viii. 2004 (O. Tadauchi). *Other than Kyushu University Expedition*: OLML. 1 male, Talasskaya Obl., Talas, Alatau, Fluss Uzun-Akmat, 1300-1500m, 42°1' N72°25' E, 2-4. vi. 1995 (H. and R. Rausch, P. Ressler); 1 male, Oshskaya Obl., Ferg. Khrebet, NE Passhohe, Urumbash, 2000m, 41°20' 23"N73°40' E, 13-15. vi. 1995 (H. and R. Rausch, P. Ressler); 1 female, Issyk-Kul'skaya Obl., S. Teploklyochenka, 2000-2300m, 42°27' N78°31' E, 18-20. vi. 1995 (H. and R. Rausch, P. Ressler); 1 female, Kirgizsky, Mts. Isyk- Ata distr., 27. v. 2001 (Gurko). AMNH. 1 female, Naryn, N bank Naryn R. ca. Ak- Tal-Tchal, 41°25'53" N75°2'2"E, 1640m, 1. vii. 1999 (J. G. Rozen, J. K. Bouseman).

*Remarks.* This species is one of the most common species after *Andrena flavipes* in Kazakhstan and Kyrgyzstan. It is widely distributed from Europe, Asia Minor to Central Asia, extending to China and Russian Far East.

*Distribution.* Uzbekistan, Kazakhstan, Kyrgyzstan, Iran, Caucasus, China, Russian Far East, European Russia, Asia Minor, Europe, North Africa.

*Floral records in Kazakhstan and Kyrgyzstan.* *Brassica* sp., *Trifolium repens*, *Trifolium pratense*, *Umbelliferae* gen. et sp., *Leguminosae* gen. et sp., *Brassica juncea*, *Achillea* sp., *Tamarix* sp., *Melilotus suaveolens*.

### 23. *Andrena (Melandrena) albopunctata* (Rossi, 1792) (Figs. 24-25)

*Apis albopunctata* Rossi, 1792, Mantissa Insect., 1: 142 [female, M. Italy].

*Andrena funebris* Panzer, 1798, Faun. Insect. German.,

55: 5 [female, Austria].

*Andrena nigro-barbata* Morawitz, 1871, Hor. Soc. Ent. Ross., 8: 217-218 [female & male, SW. Yugoslavia].

*Andrena (Melandrena) albopunctata*: Warncke, 1967, Eos, Madr., 43: 82; Osytsnjuk, 1977, Fauna Ukraini, 12 (5): 203-205; Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 72-73.

Other synonymies: See Gusenleitner & Schwarz (2002).

*Specimens examined.* [KAZAKHSTAN] 1 female, Achisai, 670-700m, Mts. Karatau, S. Kazakhstan Prov., 5. vi. 2003 (K. Mitai); 1 female, Lake Charbarinskoe, Chordara, 180m, W of Tashkent, S. Kazakhstan Prov., 30. iv. 2004 (O. Tadauchi); 2 males, Sutkent village, N of Kamsomolskoe, S. Kazakhstan Prov., 3. v. 2004 (R. Murao); 1 female, Polevod, riverside Syrdarya R., S. Kazakhstan Prov., 8. v. 2004 (O. Tadauchi). *Other than Kyushu University Expedition*: OLML. 2 females, Darbaza, 30km NW Tashkent, 11. iv. 1992 (S. Bečvář); 1 male, 10km E Ddžambul, 31. v. 1994 (Ma. Halada); 2 males, Georgievka, 75.6°- 43.2°, 16. vi. 1995 (M. Múčka).

*Remarks.* This species is thought to be a Mediterranean Basin element occurring from South Europe, North Africa, Asia Minor to Caspian Sea.

*Distribution.* Kazakhstan, Uzbekistan, Caucasus, Asia Minor, Israel, European Russia, S. and M. Europe, North Africa.

*Floral record in Kazakhstan.* *Ferula tenuisecta*.

### 24. *Andrena (Melandrena) limata* Smith, 1853 (Figs. 26-27)

*Andrena lucida* Lepeletier, 1841 (nec *Andrena lucida* Panzer, 1798), Hist. Nat. Insect. Hymen., 2: 241 [female, France].

*Andrena limata* Smith, 1853, Cat. Hymen. Brit. Mus., 1: 110, nom. nov. for *Andrena lucida* Lepeletier, 1841.

*Andrena (Melandrena) limata*: Warncke, 1967, Eos, Madr., 43: 82; Osytsnjuk, 1977, Fauna Ukraini, 12 (5): 215-216; Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 433-434.

Other synonymies: See Gusenleitner & Schwarz (2002).

*Specimens examined.* [KAZAKHSTAN] 1 female, Uzenagash, Almaty Prov., 28. v. 2000 (O. Tadauchi); 10 females, Almaty City, Almaty Prov., 29. v. 2000 (O. Tadauchi and A. Dawut); 1 female, Jabagly, 1200-1250m, S. Kazakhstan Prov., 4. ix. 2002 (R. Murao); 1 female, Botanical Garden, Almaty City, Almaty Prov., 25. v. 2003



(K. Mitai); 8 females and 2 males, Jabagly, 1080-1200m, S. Kazakhstan Prov., 27. v. 2003 (O. Tadauchi and K. Mitai); 5 females and 1 male, Jabagly, 1180-1250m, S. Kazakhstan Prov., 28. v. 2003 (O. Tadauchi and K. Mitai); 1 female, East of Chimkent, 570m, S. Kazakhstan Prov., 30. v. 2003 (O. Tadauchi); 1 female, Achisai, 670-700m, Mts. Karatau, S. Kazakhstan Prov., 4. vi. 2003 (O. Tadauchi); 2 females, same locality and collector as above, 5. vi. 2003; 1 female, Shayan-Birlik, S. Kazakhstan Prov., 8. vi. 2003 (K. Mitai); 1 female, Seslavino, 960m, Daubaba River, S. Kazakhstan Prov., 12. vi. 2003 (O. Tadauchi); 2 females and 3 males, Jabagly, 1180-1250m, S. Kazakhstan Prov., 14. vi. 2003 (O. Tadauchi); 3 females and 4 males, Kashi-Kaindy, 1700-2000m, Jabagly, S. Kazakhstan Prov., 15. vi. 2003 (O. Tadauchi and K. Mitai); 7 females, Aksu Valley, S. Kazakhstan Prov., 16. vi. 2003 (O. Tadauchi and K. Mitai); 1 female, Karaalma, 1210m, near Jabagly, S. Kazakhstan Prov., 17. vi. 2003 (O. Tadauchi); 1 female, Jabagly, 1150-1250m, S. Kazakhstan Prov., 8. v. 2004 (V. Lina); 1 male, 1180-1250m, S. Kazakhstan Prov., 11. v. 2004 (O. Tadauchi); 1 female, Medeu-Almaty, Almaty Prov., 21. v. 2004 (O. Tadauchi). *Other than Kyushu University Expedition*: OLML. 9 females and 3 males, Alma-Ata env. – Axaj, 29. v. 1980 (Dr. Z. Pádr); 1 female, Alma-Ata env. Ala Tau, Alma Arasan, 3000m, 30. v. 1980 (Dr. Z. Pádr); 1 female and 1 male, Ryn-Kum steppe, NW Kandagash, vi. 2000 (J. Miatleuski); 6 females and 1 male, Talas, Mt. R., 3km W Dzhabagly, 42°26'N 69°58'E, 5. viii. 2000 (Makogonova); 1 male, Alma-Ata, 35km zap. Aksaj, 16. vii. 1981 (Kocourek); 1 male, Almaty reg., Zailiyskiy Alatau, Almatinskoe Lake env., 2500m, 3. viii. 2002 (Gurko); 1 male, Alma-Arasan, vii. 1976 (Dr. Svozil); 1 female, Alma-Ata, Alma-Arasan, 30. iv. 1972 (Jiri Niedl); 2 males, Georgievka, 75.6°-43.2°, 16. vi. 1995 (M. Múčka). AMNH. 2 females, Alma-Arasan, 15km S Alma-Ata, 43.2°N 76.8°E, 27. v. 1994 (K. Denes Jr.).

[KYRGYZSTAN] 2 females, Issyk-ata, 1800m, 27. v. 2000 (O. Tadauchi). *Other than Kyushu University Expedition*: OLML. 1 female, Tchujskaya Obl., Kirg. Khrebet, 8km S Sosnovka, 42°36'N 73°51'E, 1500-1800m, 26-29. v. 1995 (H. and R. Rausch, P. Ressler); 1 female, Tchujskaya Obl., Hochtal, Fluss Susamyr, 42°12' 23"N 73°37'38"E, 2300m, 30. v. 1995 (H. and R. Rausch, P. Ressler); 1 male, Talasskaya Obl., Talas, Alatau, Fluss Uzun-Akmat, 1300-1500m, 42°1'N 72°25'E, 2-4. vi. 1995 (H. and R. Rausch, P. Ressler); 1 male, Talasskaya Obl., Toktogul, Stausee, 20km W Toktogul, 950m, 41°52' 23"N 72°43'E, 1. od., 5-6. vi. 1995 (H. and R. Rausch, P. Ressler); 1 male, Talasskaya Obl., Khr. Kek-lyrim Too, Toktogul-Stausee, 950m, 41°47' N 72°59'E, 5-6. vi. 1995

(H. and R. Rausch, P. Ressler); 1 male, N. Tian-Shan Mt, Boom village, 15. v. 2001 (Gurko). AMNH. 1 female, Dzhalal-Abad, jct. Kokerim & Kugan Rivers, 41°26'32" N 73°57'7"E, 1247m, 29. vi. 1999 (J. G. Rozen, J. K. Bouseman).

*Remarks.* This species is distributed from Europe to Asia Minor, extending to Central Asia.

*Distribution.* Uzbekistan, Kazakhstan, Kyrgyzstan, Caucasus, European Russia, Asia Minor, S. and M. Europe.

*Floral records in Kazakhstan and Kyrgyzstan.* *Taraxacum* sp., *Mentha asiatica*, *Brassica* sp., *Vicia* sp., *Trifolium repens*, *Achillea* sp., *Rosa kokanica*, *Rhamnus cathartica*, *Lonicera* sp.

## 25. *Andrena (Melandrena) cussariensis* Morawitz, 1886 (Figs. 28-29)

*Andrena cussariensis* Morawitz, 1886, Hor. Soc. Ent. Ross., 20: 61-63 [female & male, Caucasus].

*Andrena cussariensis* var. *kohatensis* Cockerell, 1917, Ann. Mag. Nat. Hist., (8) 19: 283 [female, NW India].

*Andrena (Melandrena) cussariensis*: Warncke, 1967, Eos, Madr., 43: 82; Osytsnjuk, 1977, Fauna Ukraini, 12 (5): 201-202; Gusenleitner & Schwarz, 2001, Entomofauna, 22: 115, Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 213-214.

*Specimens examined.* [KAZAKHSTAN] 1 female, Almaty City, Almaty Prov., 29. v. 2000 (A. Dawut); 1 female and 2 males, Jabagly, 1180-1250m, S. Kazakhstan Prov., 14. vi. 2003 (O. Tadauchi); 3 males, Kashi-Kaindy, 1700m, Jabagly, S. Kazakhstan Prov., 15. vi. 2003 (O. Tadauchi); 1 female, Ulken-Kaindy, 1850-2000m, Jabagly, S. Kazakhstan Prov., 15. vi. 2003 (O. Tadauchi); 2 females, Karaalma 1210m, near Jabagly, S. Kazakhstan Prov., 17. vi. 2003 (O. Tadauchi and K. Mitai); 1 female, Berkaza valley, 60km SW of Karatau City, Jambul Prov., 12. v. 2004 (R. Murao). *Other than Kyushu University Expedition*: OLML. 1 female and 2 males, Alma Ata-Medeo, 1700m, Zaalijskij Alatau Mts., 5-8. vii. 1980 (P. Tyrner); 2 females, Alma Ata, 2800m, Alma Arasan, 5. vii. 1981 (L. Hlaváčková); 1 female, Issik 3km S, 22-23. vi. 1992 (K. Denes).

[KYRGYZSTAN] 5 males, Issyk-ata, 1800m, 27. v. 2000 (O. Tadauchi). *Other than Kyushu University Expedition*: AMNH. 1 female, Dzhalal-abad, Kara-Kysmak Ravine, 42°6'49" N 71°33'28"E, 2500m, 18. vi. 1999 (J. G. Rozen, J. K. Bouseman); 1 female, Dzhalal-abad, ca. jct. Kara Kysmak and Chalkal R. 42°4'0"



**Figs. 20-29.** General habitus in dorsal view of *Andrena* spp. collected from Kazakhstan and Kyrgyzstan. 20: *A. (Zonandrena) flavipes* Panzer, female, 21: the same, male, 22: *A. (Taeniandrena) ovatula* (Kirby), female, 23: the same, male, 24: *A. (Melandrena) albopunctata* (Rossi), female, 25: the same, male, 26: *A. (Melandrena) limata* Smith, female, 27: the same, male, 28: *A. (Melandrena) cussariensis* Morawitz, female, 29: the same, male.

N71°35'41"E, 2240m, 19. vi. 1999 (J. G. Rozen, J. K. Bouseman); 2 males, Karakuldzha, Lajsu Ravine, 40°31'20" N73°37'10"E, 1815m, 25. vi. 1999 (J. G. Rozen, J. K. Bouseman).

*Remarks.* This species is thought to be a Turkmen (Western and Central Asian) element occurring in Central Asia. It has two generations a year.

*Distribution.* Uzbekistan, Kazakhstan, Kyrgyzstan (new record), Iran, Asia Minor, European Russia..

*Floral records in Kazakhstan and Kyrgyzstan.* *Achillea* sp., *Trifolium repens*, *Taraxacum* sp., *Ranunculus* sp., *Rosa* sp.

## 26. *Andrena (Melandrena) vaga* Panzer, 1799 (Figs. 30-31)

*Andrena vaga* Panzer, 1799, Faun. Insect. German., 64: 18 [female, Austria].

*Andrena ovina* Klug, 1810, Magazin Ges. Naturf. Fr. Berl., 4: 266-270 [female & male, Germany].

*Andrena nitidiventris* Blanchard, 1840, Hist. Nat. Anim. Artic.: 414 [female, M. France].

*Andrena nitidiventris* Dufour, 1841 (nec *Andrena nitidiventris* Blanchard, 1840), Mem. Acad. Sci. Inst. Fr., 7: 456 [N. France].

*Andrena atricula* Bischoff, 1922, Dt. Ent. Z., 1922: 428-429 [male, N. Germany].

*Andrena (Melandrena) vaga*: Warncke, 1967, Eos, Madr., 43: 82; Osytshnjuk, 1977, Fauna Ukraini, 12 (5): 207-209; Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 798-800.

Other synonymies: See Gusenleitner & Schwarz (2002).

*Specimens examined.* [KAZAKHSTAN] 2 females, Jabagly, 1080-1200m, S. Kazakhstan Prov., 27. v. 2003 (K. Mitai); 1 female, Jabagly, 1180-1250m, S. Kazakhstan Prov., 28. v. 2003 (K. Mitai); 6 females, Achisai, 670-700m, Mts. Karatau, S. Kazakhstan Prov., 4. vi. 2003 (O. Tadauchi); 8 females and 1 male, Jabagly, 1150-1250m, S. Kazakhstan Prov., 1. v. 2004 (V. Lina); 28 females and 1 male, Jabagly, 1150-1250m, S. Kazakhstan Prov., 3. v. 2004 (V. Lina); 1 female, Jabagly, 1150-1250m, S. Kazakhstan Prov., 8. v. 2004 (V. Lina); 6 females, Jabagly, 1180-1250m, S. Kazakhstan Prov., 11. v. 2004 (R. Murao). *Other than Kyushu University Expedition:* OLML. 1 male, Alma-Ata, Medeo, 29. iv. 1972 (Jiří Niedl); 9 males, Alma-Ata, Alma-Arasan, 30. iv. 1972 (Jiří Niedl); 1 male, Alma-Arasan, Alma-Ata env., 28-30. v. 1974 (Kr. Pospíšil). AMNH. 1 male, Alma-Arasan, 15km S Alma-Ata, 43.2°N76.8°E, 27. v. 1994 (K. Denes Jr.).

[KYRGYZSTAN] *Other than Kyushu University Expedition:* OLML. 1 male, Talasskaya Obl., Ferg. Khrebet, Kara-Suu, 2000-2200m, 41°34' N73°13'E, 6-8. vi. 1995 (H. and R. Rausch, P. Ressler); 1 male, Tchujskaya Obl., Hochtal, Fluss Susamyr, 2300m, 42°12'23"N 73°37'38"E, 30. v. 1995 (H. and R. Rausch, P. Ressler).

*Remarks.* This species is distributed from middle and north Europe to Central Asia, thought to be a European-Siberian element.

*Distribution.* Kazakhstan, Kyrgyzstan, Caucasus, European Russia, M. and N. Europe.

*Floral record in Kazakhstan.* *Rosa* sp., *Rhamnus cathartica*, *Hypericum scabrum*.

## 27. *Andrena (Melandrena) metallescens* Cockerell, 1906 (Figs. 32-33)

*Andrena metallescens* Cockerell, 1906, Can. Ent., 38: 166, nom. nov. for *Andrena metallica* Radoszkowski. *Andrena metallica* Radoszkowski, 1876 (nec *Andrena metallica* Fabricius, 1793), Hor. Soc. Ent. Ross., 12: 83-84 [female & male, Caucasus].

*Andrena (Melandrena) metallescens*: Warncke, 1967, Eos, Madr., 43: 82; Gusenleitner & Schwarz, 2001, Entomofauna, 22: 306, Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 476.

*Specimens examined.* [KAZAKHSTAN] 9 females, Achisai, 670-700m, Mts. Karatau, S. Kazakhstan Prov., 4. vi. 2003 (O. Tadauchi and K. Mitai); 11 females, same locality and collector as above, 5. vi. 2003; 1 female, same locality as above, 6. vi. 2003 (K. Mitai); 1 female, Birlik near Shayan, S. Kazakhstan Prov., 8. vi. 2003 (O. Tadauchi); 1 female, N of Boroldy village, Mts. Karatau, S. Kazakhstan Prov., 10. v. 2004 (O. Tadauchi); 2 females, 1180-1250m, S. Kazakhstan Prov., 11. v. 2004 (O. Tadauchi and R. Murao); 3 females, Karatau City 600m, Jambul Prov., 13. v. 2004 (O. Tadauchi).

*Remarks.* This species is thought to be a Turkmen (Western and Central Asian) element occurring in Central Asia.

*Distribution.* Kazakhstan, Caucasus.

*Floral record in Kazakhstan.* *Ferula tenuisecta*.

## 28. *Andrena (Simandrena) sarta* Morawitz, 1876 (Figs. 34-35)

*Andrena sarta* Morawitz, 1876, in Fedtschenko, Izv. Imp. Obschch. Ljubit. Estest. Antrop. Etnog.: 171 [female, Kazakhstan].



*Andrena rufilabris* Morawitz, 1876, in Fedtschenko, Izv. Imp. Obschch. Ljubit. Estest. Antrop. Etnog.: 180 [female, Uzbekistan].

*Andrena (Simandrena) sarta*: Gusenleitner & Schwarz, 2001, Entomofauna, **22**: 163, Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 660-661.

*Specimens examined*. [KAZAKHSTAN] 17 females, Kamsomolskoe, N of Chordara, S. Kazakhstan Prov., 1. v. 2004 (O. Tadauchi and R. Murao); 1 female, Hot spring, W of Kamsomolskoe, Kyzylkum desert, S. Kazakhstan Prov., 3. v. 2004 (R. Murao); 2 females, Karatau City, 600m, Jambul Prov., 13. v. 2004 (O. Tadauchi); 2 females, N of Janatas, 420m, Jambul Prov., 13. v. 2004 (O. Tadauchi); 1 female, Karatau-Janatas 680m, Jambul Prov., 13. v. 2004 (R. Murao); 1 female, Muyunkum-Kumozek, 325m, Muyunkum desert, Jambul Prov., 16. v. 2004 (O. Tadauchi); 1 female, Riverside Ili R., NW of Kapchagay, Almaty Prov., 19. v. 2004 (O. Tadauchi). *Other than Kyushu University Expedition*: OLML. 13 females and 13 males, Ili riv. area, Bakanas Distr., iv.-v. 2001 (Gurko).

*Remarks*. This species is thought to be a Turkmen (Western and Central Asian) element occurring in Central Asia.

*Distribution*. Kazakhstan, Uzbekistan.

*Floral record in Kazakhstan*. Not available.

### 29. *Andrena (Simandrena) combinata* (Christ, 1791) (Fig. 36)

*Apis combinata* Christ, 1791, Naturg. Der Insect.: 187 [female, Germany].

*Andrena candens* Eversmann, 1852, Bull. Soc. Nat. Moscou, 25: 24 [female & male, Europ. Russia].

*Andrena albibarbis* Schenck, 1853, Jb. Ver. Naturk. Nassau, 9: 134 [Germany].

*Andrena sahlbergi* Morawitz, 1888, Hor. Soc. Ent. Ross., 22: 241-242 [female & male, M. Siberia].

*Andrena (Simandrena) combinata*: Warncke, 1967, Eos, Madr., 43: 88; Osytsnjuk, 1977, Fauna Ukraini, 12 (5): 239-241; Tadauchi & Xu, 1995, Esakia, (35): 203 [China]; Osytsnjuk, 1995, Key Insects Russian Far East, Vol. 4, Part 1, 508, 524 [Russian Far East]; Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 193-194.

Other synonymies: See Gusenleitner & Schwarz (2002).

*Specimens examined*. [KAZAKHSTAN] 1 female,

Uzenagash, Almaty Prov., 28. v. 2000 (O. Tadauchi); 1 female, Jabagly, 1180-1250m, S. Kazakhstan Prov., 28. v. 2003 (O. Tadauchi). *Other than Kyushu University Expedition*: OLML. 1 female, Alma-Arasan, vii. 1976 (Dr. Svozil).

[KYRGYZSTAN] 1 female, Krasnyarichika, 800m, 27. v. 2000 (A. Dawut). *Other than Kyushu University Expedition*: OLML. 1 female, Talasskaya Obl., Talas Alatau, Fluss Uzun-Akmat, 1300-1500m, 42°1'N72°25'E, 2-4. vi. 1995 (H. and R. Rausch, P. Ressler); 1 female, Talasskaya Obl., Khr. Kek-Ilyrim Too, Toktogul-Stausee, 950m, 41°47'N72°59'E, 5-6. vi. 1995 (H. and R. Rausch, P. Ressler); 1 female, Issyk-Kul'skaya Obl., S Teplokiyochenka, 2000-2300m, 42°27'N78°31'E, 18-20. vi. 1995 (H. and R. Rausch, P. Ressler).

*Remarks*. This species is thought to be a European-Siberian element occurring from Europe to Central Asia, extending to China and Russian Far East.

*Distribution*. Kazakhstan, Kyrgyzstan, Kaukasus, China, Siberia, Asia Minor, European Russia, Russian Far East, Europe, North Africa.

*Floral records in Kazakhstan and Kyrgyzstan*. *Brassica* sp., Umbelliferae gen. et sp.

### 30. *Andrena (Hoplendrena) rosae* Panzer, 1801 (Figs. 37-38)

*Andrena rosae* Panzer, 1801, Faun. Insect. German., 74: 10 [female, Germany].

*Andrena rosae* var. *alfkeni* Friese, 1914, Stettin. Ent. Ztg., 75: 228 [female, M. Siberia].

*Andrena florea* ssp. *sachalinensis* Yasumatsu, 1939, Insecta Mats., 13: 66-68 [female, Sakhalin].

*Andrena (Hoplendrena) rosae alfkeni*: Osytsnjuk, 1995, Key Insects Russian Far East, Vol. 4. Part 1, 501, 520; Xu & Tadauchi, 2005, Esakia, (45): 23.

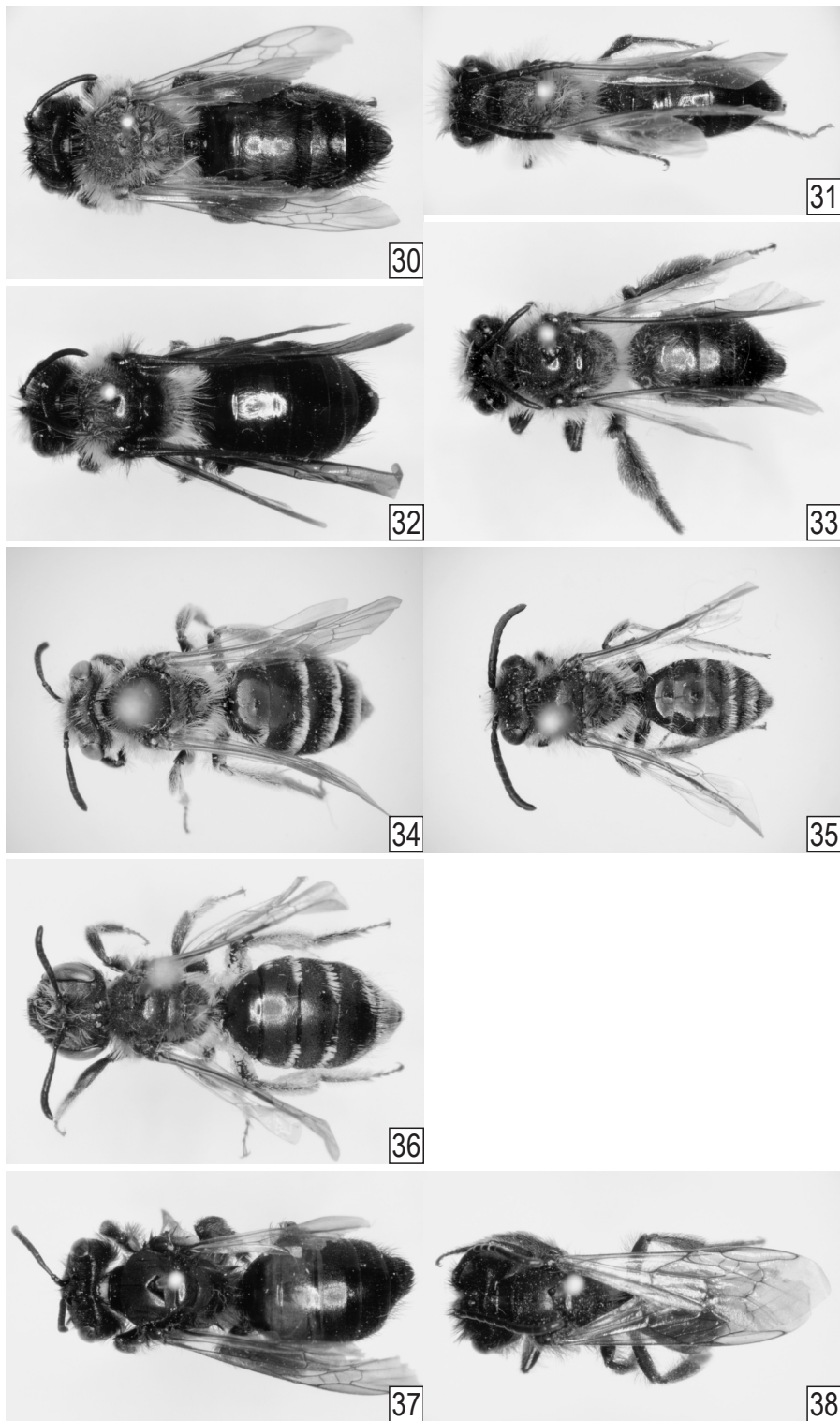
*Andrena (Hoplendrena) sachalinensis*: Hirashima, 1964, J. Fac. Agr., Kyushu Univ., 13: 91-93 [Japan]; Tadauchi & Hirashima, 1984, Kontyû, 52 (2): 284-285.

*Andrena (Hoplendrena) rosae*: Warncke, 1967, Eos, Madr., 43: 94; Osytsnjuk, 1977, Fauna Ukraini, 12 (5): 254-255; Gusenleitner & Schwarz, 2002, Entomofauna, Suupl., 12: 639-640.

Other synonymies: See Gusenleitner & Schwarz (2002).

*Specimens examined*. [KAZAKHSTAN] 1 female, Jabagly, 1080-1200m, S. Kazakhstan Prov., 27. v. 2003 (O. Tadauchi); 1 female, Jabagly, 1180-1250m, S. Kazakhstan Prov., 28. v. 2003 (O. Tadauchi); 1 female, Jabagly, 1180-1250m, S. Kazakhstan Prov., 14. vi. 2003





**Figs. 30-38.** General habitus in dorsal view of *Andrena* spp. collected from Kazakhstan and Kyrgyzstan. 30: *A. (Melandrena) vaga* Panzer, female, 31: the same, male, 32: *A. (Melandrena) metallescens* Cockerell, female, 33: the same, male, 34: *A. (Simandrena) sarta* Morawitz, female, 35: the same, male, 36: *A. (Simandrena) combinata* (Christ), female, 37: *A. (Hoplendrena) rosae* Panzer, female, 38: the same, male.

(K. Mitai); 1 female, Aksu Valley, S. Kazakhstan Prov., 16. vi. 2003 (O. Tadauchi); 19 females, Jabagly, 1150-1250m, S. Kazakhstan Prov., 1. v. 2004 (V. Lina); 14 females and 1 male, Jabagly, 1150-1250m, S. Kazakhstan Prov., 3. v. 2004 (V. Lina); 2 females, Jabagly, 1150-1250m, S. Kazakhstan Prov., 8. v. 2004 (V. Lina); 5 females, 1180-1250m, S. Kazakhstan Prov., 11. v. 2004 (O. Tadauchi).

*Remarks.* This species is widely distributed from Europe, Central Asia to Far East Asia. It is thought to be a European-Siberian element.

*Distribution.* Kazakhstan, Caucasus, Russian Far East including Sakhalin, Siberia, Japan, Korean Peninsula, China, Europe. European Russia.

*Floral record in Kazakhstan.* Leguminosae gen. et sp.

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### References

- Cockerell, T. D. A., 1930. Descriptions and records of bees 121. *Ann. Mag. Nat. Hist.*, (10) **5**: 108-115.
- Eversmann, E., 1852. Fauna Hymenopterologica Volgo-Uralensis. *Bull. Soc. Nat. Moscou*, **25**: 1-137.
- Friese, H., 1922. Neue Formen der Bienengattung *Andrena* (Hym.). *Konowia*, **1**: 209-217.
- Gusenleitner, F. & M. Schwarz, 2000. Angaben zur Morphologie einiger von A. Z. Osytshnjuk beschriebener, zumeist asiatischer *Andrena*-Arten (Hymenoptera: Apidae: Andrenidae). *Entomofauna*, **21**: 381-456.
- Gusenleitner, F. & M. Schwarz, 2001. Zur Morphologie verschiedener von F. Morawitz beschriebener *Andrena*-Arten (Hymenoptera: Apidae: Andrenidae). *Entomofauna*, **22**: 93-196.
- Gusenleitner, F. & M. Schwarz, 2002. Weltweite Checkliste der Bienengattung *Andrena* mit Bemerkungen und Ergänzungen zu paläarktischen Arten (Hymenoptera, Apidae, Andreninae, *Andrena*). *Entomofauna*, **12**, Suppl.: 1-1280.
- Lebedev, A. G., 1932. Einige neue *Andrena*-Arten aus S.S.S.R. *Konowia*, **11**: 65-73.
- Lebedev, A. G., 1933. Einige neue *Andrena*-Arten aus S.S.S.R. (Schluss). *Konowia*, **12**: 60-65.
- Morawitz, F., 1866. Bemerkungen über einige von Prof. Eversmann beschriebene Andrenidae, nebst Zusätzen. *Hor. Soc. Ent. Ross.*, **4**: 3-28.
- Morawitz, F., 1876. Bienen (Mellifera). II. Andrenidae. In Fedtschenko, A. P., *Reisen in Turkestan II*. Izv. Imp. Obshch. Ljubit. Estest. Antrop. Etnog., **21**: 161-303, Taf. 1-3. (In Russian.)
- Morawitz, F., 1888. Hymenoptera aculeate nova. *Hor. Soc. Ent. Ross.*, **22**: 224-302.
- Osytsnjuk, A. Z., 1977. Bees – Andrenidae (Apoidea, Andrenidae). *Fauna Ukraini*, **12** (5): 1-328. (In Ukrainian.)
- Osytsnjuk, A. Z., 1995. *Andrena*. pp. 489-527. In Lehr, P. A. (ed.) *Key to the Insects of Russian Far East in Six Volumes. Vol. 4, Neuropteroidea, Mecoptera, Hymenoptera*, Part 1. St. Petersburg, Nauka.
- Osytsnjuk, A. Z., L. Romasenko, J. Banaszak & T. Cierznia, 2005. *Andrenidae of the Central and Eastern Palaearctic*. Part 1. proDruk, Poznan, 235 pp.
- Popov, V. V., 1949. Subgenus *Plastandrena* Hedicke and its new representatives (Hym., Apoidea). *Ent. Obozr.*, **30**: 389-404. (In Russian.)
- Radoszkowski, O., 1867. Matériaux pour servir à l'étude des insectes de la Russie. IV. Notes sur quelques Hyménoptères de la tribu des Apides. *Hor. Soc. Ent. Ross.*, **5**: 73-90.
- Radoszkowski, O., 1893. Faune Hyménoptérologique Transcaspienne. *Hor. Soc. Ent. Ross.*, **27** (1892-93): 38-81.
- Tadauchi, O., 2006. The genus *Andrena* from Kazakhstan and Kyrgyzstan collected by the Kyushu University Expedition (Hymenoptera, Andrenidae) (1). *Esakia*, (46): 1-19.
- Tadauchi, O. & T. Matsumura, 2007. The genus *Andrena* collected from Nepal (Hymenoptera, Andrenidae) with redescription of some types of *Andrena* described from north India. *Esakia*, (47): 1-20.
- Tadauchi, O. & H-l. Xu, 1995. A revision of the subgenus *Simandrena* of the genus *Andrena* of eastern Asia with a key to palaearctic species (Hymenoptera, Andrenidae). *Esakia*, (35): 201-222.
- Warncke, K., 1967. Beitrag zur Klärung paläarktischer *Andrena*-Arten (Hym. Apidae). *Eos, Madr.*, **43**: 171-318.
- Xu, H-l. & O. Tadauchi, 1997. Subgeneric positions and redescription of Asian *Andrena* preserved in the Zoological

Institute, Russian Academy of Sciences, St. Petersburg  
(Hymenoptera, Andrenidae). *J. Fac. Agr., Kyushu Univ.*, **41**:  
165-178.

Xu, H-l. & O. Tadauchi, 2008. The subgenera *Margandrena*,

*Leimelissa*, *Stenomelissa* and *Zonandrena* of the genus  
*Andrena* of eastern Asia (Hymenoptera, Andrenidae). *J.*  
*Fac. Agr., Kyushu Univ.*, **53**: 63-66.