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**CONTRIBUTION TO THE KNOWLEDGE OF DRYINID WASPS  
GENUS *ANTEON* JURINE, 1807 (HYMENOPTERA: DRYINIDAE)  
IN THE RUSSIAN FAR EAST**

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**Summary.** *Anteon magnatum* Kim et Lee, 2013 and *A. septentrionale* Xu, He et Olmi 2002 are newly recorded from fauna of Russia, *A. gaullei* Kieffer, 1905 is recorded for the first time from Russian Far East, *A. pubicorne* (Dalman, 1818) and *A. exiguum* (Haupt 1941) from Amur province, *A. exiguum* from Eastern Siberia. The number of known species of the genus *Anteon* Jurine, 1807 increased in Russia to 18 and Russian Far East to 13. A key to 13 species of *Anteon* from Russian Far East (based on females) is given.

**Key words:** Chrysidoidea, Amur Province, new records, key.

**Д. Н. Кочетков, М. Ольми, А. С. Лелей. Вклад в познание ос-дриинид рода *Anteon* Jurine, 1807 (Hymenoptera: Dryinidae) Дальнего Востока России // Дальневосточный энтомолог. 2019. N 393. С. 11-17.**

**Резюме.** *magnatum* Kim et Lee, 2013 и *A. septentrionale* Xu, He et Olmi 2002 впервые указываются для фауны России, *A. gaullei* Kieffer, 1905 для Дальнего Востока России, *A. pubicorne* (Dalman, 1818) и *A. exiguum* (Haupt 1941) для Амурской области, а *A. exiguum* – для Восточной Сибири. Число известных видов рода *Anteon* Jurine, 1807 возросло в России до 18, а на Дальнем Востоке России до 13. Дается определительная таблица (по самкам) 13 видов, известных с Дальнего Востока России.

**INTRODUCTION**

Dryinidae (Hymenoptera: Aculeata) are small (most are 2–8 mm) wasps belonging to the superfamily Chrysidoidea. Their larvae are parasitoids of Hemiptera Auchenorrhyncha (Guglielmino & Olmi 1997, 2006, 2007; Guglielmino *et al.* 2013). In the world, 16 subfamilies (12 extant), 50 genera, 1884 species are known (Olmi *et al.* 2019). In the Palearctic region and Russia, subfamilies, genera and species are respectively 9/24/257 and 5/8/65 (including current data) (Lelej & Loktionov 2017, Olmi *et al.*, 2019).

In this paper, new records of five dryinid species from the Russian Far East are documented. The material is deposited in the collections of the Khinganskiy State Nature Reserve, Amur province, Arkhara, Russia and Federal Scientific Center of the East Asia Terrestrial Biodiversity, Vladivostok, Russia. The distribution data of the species follows Ponomarenko (1992, 1995), Olmi (2004), Olmi & Xu (2015) and Lelej & Loktionov (2017). The new records are asterisked (\*).

## RESULTS

### Genus *Anteon* Jurine, 1807

Type species: *Anteon jurineanum* Latreille, 1809, by subsequent monotypy.

NOTES. For the full list of generic synonymies see Olmi *et al.* (2019) and Olmi & Xu (2015). This is a worldwide distributed dryinid genus. Members of this genus are known as parasitoids of Cicadellidae (Guglielmino & Olmi 1997, 2006, 2007; Guglielmino *et al.* 2013). Larvae of *Anteon* were described by Ponomarenko (1975) and more recently by Guglielmino *et al.* (2017). Number of the species: World – 464, Palaearctic – about 50, Russia – 18, Russian Far East – 13 (Lelej & Loktionov 2017, Olmi *et al.*, 2019, including current data).

#### *Anteon exiguum* (Haupt, 1941)

Figs 1, 6

MATERIAL EXAMINED. **Russia:** Amur prov., Arkhara, mountain oak forest, 49°25'34"N 130°05'42"E, 12.IX 2016, 1 ♀ (D. Kochetkov). Buryatia, 149 km W Lake Baikal, western bank of river Khalagun, 0.6 km W its river mouth in river Irkut, 51°38'09"N 101°33'18"E, 6.VIII 2016, Ru 2185, 1 ♂ (M. von Tschirnhaus) (Massimo Olmi's collection).

DISTRIBUTION. **Russia:** \*Eastern Siberia (Buryatia), Far East (\*Amur prov., Primorskii krai). – Europe (from France to Finland and Poland), Korean Peninsula.

REMARKS. By the opinion of M. Olmi, this is a color variety of *Anteon exiguum* (specimen was identified by MO by photos).

#### *Anteon gaullei* Kieffer, 1905

Figs 2, 7

MATERIAL EXAMINED. **Russia:** Jewish Autonomous Region, Bastak Nature Reserve: 25 km N Birobidzhan, Ikura river, glade in a mixed forest, 49°02'02"N 132°56'48"E, 24.VII 2018, 2 ♀ (D. Kochetkov).

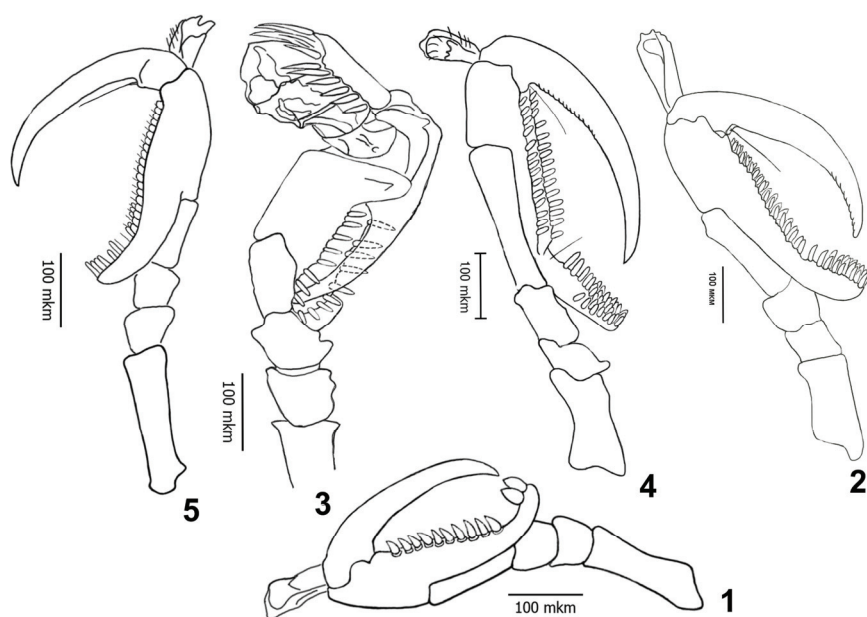
DISTRIBUTION. **Russia:** European part (center), Eastern Siberia (Irkutsk prov.), \*Far East (Jewish Autonomous region). – Europe, Kyrgyzstan, Kazakhstan, Korean Peninsula.

#### *Anteon magnatum* Kim et Lee, 2013

Figs 3, 8, 12

MATERIAL EXAMINED. **Russia:** Amur province, Khingan Nature Reserve: 12 km W Kundur, Eract River, mountain oak forest, 49°05'26"N 130°35'49"E, 7.VIII 2018, 1 ♀ (D. Kochetkov).

DISTRIBUTION. \***Russia:** Far East (Amur prov.). – Korean Peninsula.



Figs 1–5. *Anteon* spp., female chelae: 1 – *Anteon exiguum*; 2 – *A. gaullei*; 3 – *A. magnatum*; 4 – *A. pubicorne*; 5 – *A. septentrionale*.

***Anteon pubicorne* (Dalman, 1818)**

Figs 4, 9, 11

**MATERIAL EXAMINED.** **Russia:** Amur province, Khingan Nature Reserve: 3 km E Uril, Tarmanchukan river, mountain oak forest, 26.VIII 2016, 1 ♀ (D. Kochetkov); same place, 49°13'07"N 130°31'48"E, 14, 30.VIII 2018, 7 ♀ (D. Kochetkov); 12 km W Kundur, Eract River, mountain oak forest, 49°05'26"N 130°35'49"E, 7.VIII 2018, 2 ♀ (D. Kochetkov); 16 km SW Kundur, Dirty river, mountain oak forest, 49°04'48"N 130°29'58"E, 8-9.VIII 2018, 4 ♀ (D. Kochetkov).

**DISTRIBUTION.** Russia: European part, Urals, Western Siberia (Altai Republic), Eastern Siberia (Irkutsk prov.), Far East (\*Amur prov., Primorskii krai, Sakhalin, Magadan prov., Kamchatka). – Europe, Morocco, Turkey, Armenia, Kazakhstan, Mongolia, China (Liaoning, Ningxia, Xinjiang), Korean Peninsula, Japan (Hokkaido, Honshu).

***Anteon septentrionale* Xu, He et Olmi 2002**

Figs 5, 10, 13

**MATERIAL EXAMINED.** **Russia:** Amur prov., Khingan Nature Reserve: 3 km W Kundur, Karapcha River, mountain oak forest, 49°06'50"N 130°43'45"E, 5.VIII 2018, 1 ♀ (D. Kochetkov); 12 km W Kundur, Eract River, mountain oak forest, 49°05'26"N 130°35'49"E, 7.VIII 2018, 1 ♀ (D. Kochetkov).

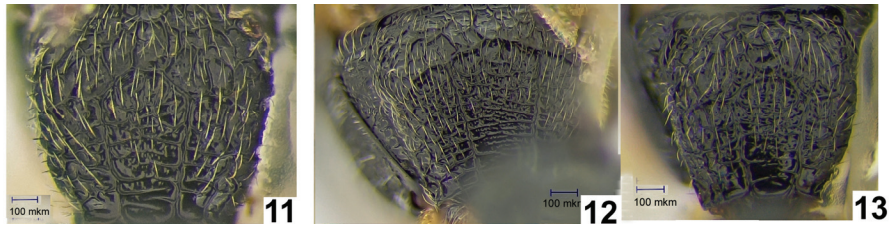
**DISTRIBUTION.** \*Russia: Far East (Amur prov.). – China (Jilin, Liaoning), Korean Peninsula.



Figs 6–10. *Anteon* spp., female habitus, dorsal (6) and lateral (7–10) view: 6 – *A. exiguum*; 7 – *A. gaullei*; 8 – *A. magnatu*; 9 – *A. pubicorne*; 10 – *A. septentrionale*.

**Key to the species of the genus *Anteon* from the Russian Far East (females)**

1. Segment 4 of protarsus at most about 0.5 as long as segment 1; protarsal segment 3 or 4 produced into hook ..... 2
  - Segment 4 of protarsus as long as, or longer than, or little shorter than segment 1 (in last case, at least 0.66 as long as segment 1); usually protarsal segment 2 produced into hook ..... 6
2. Posterior surface of propodeum without longitudinal keels. – Notauli reaching 0.3–0.5 length of scutum. – Russia: European part, Ural, Western Siberia (Altai), Far East (Primorskii krai, Sakhalin, Kurils, Kamchatka). – Europe, Turkey, Jordan, Turkmenistan, Kazakhstan, Mongolia, China, Korean Peninsula, Japan, Nepal .....
  - ..... *A. jurineanum* Latreille, 1809
  - Posterior surface of propodeum with two longitudinal keels (Fig. 12). – Face carinate centrally ..... 3
3. Segment 5 of protarsus laterally expanded and forming wide and slightly concave lamina. – \*Russia: Far East (Amur prov.). – Korean Peninsula ..... *A. magnatum* Kim et Lee, 2013
  - Segment 5 of protarsus normally shaped, not expanded to form wide lamina ..... 4
4. Head completely and strongly reticulate rugose; segment 4 and occasionally also segment 3 of protarsus produced into hook. – Notauli reaching about 0.4–0.5 length of scutum. – Russia: Far East (Primorskii krai). – North China, Korean Peninsula, Japan (Kyushu) ....
  - ..... *A. esakii* Yasumatsu, 1960
  - Head not or partly reticulate rugose; segment 3 of protarsus produced into hook ..... 5
5. Distal part of segment 5 of protarsus approximately as long as proximal part (Fig. 5). – \*Russia: Far East (Amur prov.), China (Jilin, Liaoning), Korean Peninsula (See also couplet 10) ..... *A. septentrionale* Xu, He et Olmi, 2002, part.
  - Distal part of segment 5 of protarsus much shorter than proximal part. Head with complete frontal line. – Russia: European part, Ural, Far East (Primorskii krai). – Europe, Algeria, Kazakhstan, Mongolia, Korean Peninsula ..... *A. flavicorne* (Dalman, 1818)
6. Posterior surface of propodeum with median area shining, mostly smooth and unsculptured, partly rugose ..... 7
  - Posterior surface of propodeum with median area dull, completely rugose, approximately as rugose as lateral regions ..... 9
7. Head, pronotum, scutum and scutellum yellow or reddish. – Russia: European part, Ural, Eastern Siberia (Yakutiya), Far East (Primorskii krai, Sakhalin, Kurils). – Europe, Morocco, Turkey, Lebanon, Kyrgyzstan, Kazakhstan, Mongolia, China, Korean Peninsula, Japan. (See also couplet 14) ..... *A. ephippiger* (Dalman, 1818)
  - Head and thorax completely black; at most clypeus and face partly testaceous ..... 8
8. Smaller species, less than 2.5 mm long; head finely punctate and completely smooth; face smooth, without keels or areolae; segment 5 of protarsus with 1 row of lamellae. – Russia: European part, Ural, Western Siberia (Altai), Eastern Siberia, Far East (\*Amur prov., Primorskii krai, Sakhalin, Kamchatka, Magadan prov.). – Europe, Morocco, Turkey, Armenia, Kazakhstan, Mongolia, China, Korean Peninsula, Japan (Hokkaido, Honshu). (See also couplet 11) ..... *A. pubicorne* (Dalman, 1818), part.
  - Larger species, more than 3.0 mm long; head strongly punctate; face usually with keels or areolae, rarely completely smooth, punctate, unsculptured among punctures; segment 5 of protarsus with one or 2 rows of lamellae. – Antennal segments 2 + 3 approximately as long as, or slightly longer than, segment 1. – Russia: European part (center), Far East (Primorskii krai). – Europe, Azerbaijan, Turkey, Japan (Honshu) ..... *A. infectum* (Haliday, 1837)



Figs 11–13. *Anteon* spp., female propodeum, posterodorsal view: 11 – *A. pubicorne*; 12 – *A. magnatum*; 13 – *A. septentrionale*.

9. Pronotum with posterior surface transverse, more than twice as broad as long ..... 10
- Pronotum with posterior surface approximately as long as broad, occasionally broader than long, then never more than twice as broad as long ..... 12
10. Segment 5 of protarsus with basal part about as long as distal part (Fig. 5). (See also couplet 5) ..... *A. septentrionale* Xu, He et Olmi, 2002, part.
- Segment 5 of protarsus with basal part much shorter than distal part ..... 11
11. Prothorax testaceous-reddish; posterior surface of pronotum less than three times as broad as long. – Russia: Far East (Primorskii krai). – Korean Peninsula, Japan (Kyushu) ..... *A. hikense* Olmi, 1995
- Prothorax black; posterior surface of pronotum at least three times as broad as long. – Russia: Far East (Primorskii krai). – Europe, Korean Peninsula ..... *A. exiguum* (Haupt, 1941)
12. Head and mesosoma completely black, occasionally brown or with cupreous tinges; mandible testaceous; head punctate, unsculptured among punctures. (See also couplet 8) ..... *A. pubicorne* (Dalman, 1818), part.
- Head and mesosoma partly or completely yellow, or testaceous, or reddish, or dark-reddish; occasionally completely dark-brown, or almost wholly or wholly black, then head partly rugose, or punctate and granulated among punctures ..... 13
13. Head wholly black; scutum completely or mainly black; pronotum reddish, or yellow, or testaceous (Fig. 7); segment 5 of protarsus with 2 rows of lamellae (Fig. 2). – Russia: European part (center), Eastern Siberia (Irkutsk prov.), \*Far East (Jewish Autonomous region). – Europe, Kyrgyzstan, Kazakhstan, Korean Peninsula .... *A. gaullei* Kieffer, 1905
- At least head partly yellow, or reddish, or testaceous; occasionally head and scutum dark brown or black, but then pronotum dark brown, or black, or blackish; segment 5 of protarsus with 1–2 rows of lamellae ..... 14
14. Head dull, always clearly and strongly granulated; antennal segment 1 approximately twice as long as segment 4. – Russia: Far East (Sakhalin). – Europe, Morocco, Algeria, Kazakhstan ..... *A. fulviventre* (Haliday, 1828)
- Head at least partly smooth, shining, punctate, unsculptured among punctures or very slightly granulated; antennal segment 1 approximately as long as or less than twice as long as segment 4 ..... 15
15. Pronotum always black; mesosoma totally black; head black, occasionally with face partly testaceous. – Russia: Far East (Primorskii krai). – China, Korean Peninsula, Japan (Kyushu) ..... *A. takenoi* Olmi, 1995
- Pronotum never black; head and mesosoma usually partly or totally testaceous, or yellow, or reddish, never black with face partly testaceous. (See also couplet 7) ..... *A. ephippiger* (Dalman, 1818)

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