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Research Article

New records of Cryptinae and Ichneumoninae (Hymenoptera: Ichneumonidae) species from Kerman province, Southeast Iran

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Abstract: The present study provides information about the Cryptinae and Ichneumoninae (Hymenoptera: Ichneumonidae) species collected from Kerman province, during 2013. A total of 12 species belonging to 10 genera of these two subfamilies were collected and identified. They were *Cryptus inculcator* (Linnaeus, 1758); *Dichrogaster longicaudata* (Thomson, 1884); *Dichrogaster saharator* (Aubert, 1964) and *Mesostenus albinotatus* Gravenhorst, 1829 (subfamily Cryptinae); *Anisobas cingulatellus* Horstmann, 1997; *Apaeleticus bellicosus* Wesmeal, 1845; *Barichneumon derogator* (Wesmeal, 1845); *Ctenichneumon devylderi* (Holmgren, 1871); *Ctenichneumon edictorius* (Linnaeus, 1758); *Diadromus collaris* (Gravenhorst, 1829); *Heterischnus filiformis* (Gravenhorst, 1829) and *Lysibia nana* (Gravenhorst, 1829) (subfamily Ichneumoninae) of which the genus *Apaeleticus* Wesmael and three species including *M. albinotatus*, *A. bellicosus* and *B. derogator* are new records for the fauna of Iran. All species are new for the fauna of Kerman province.

Keywords: Catalog, new record, parasitic wasps, systematics, taxonomy, *Apaeleticus*

Introduction

The family Ichneumonidae is an extremely large group of insects with over 100,000 (Gauld, 1991) estimated and about 25,000 described species in 48 subfamilies worldwide (Yu *et al*., 2012). This highly diverse family in tropical regions has poorly been represented in Iran. The subfamily Cryptinae is the largest subfamily with 397 genera and some similarities to Ichneumoninae, with which it may be confused (Wahl and Sharkey, 1993). Most of the species are idiobiont ectoparasitoids on pupae or prepupae of holometabolous insects, while some genera comprise the koinobiont endoparasitoids (Quicke *et al*., 2009). Cryptinae are not well known in Iran, where so far only 106 species have been recorded (Schwarz, 2009; Barahoei *et al*., 2012, 2014a; Ghahari and Schwarz, 2012; Ghahari *et al*., 2014). The subfamily Ichneumoninae is the second largest subfamily of Ichneumonidae including 4,300 species worldwide, of which 1,774 species occur in the Palaearctic region (Yu *et al*., 2012). Species of this group quite often parasitise lepidopterous hosts (Wahl and Sharkey, 1993). Yet, 179 species belonging to this subfamily have been previously recorded from Iran (Barahoei *et al*., 2012, 2014b, 2015; Ghahari, 2014; Ghahari and Schwarz, 2012; Kazemi *et al*., 2014). The aim of this paper is to improve our understanding and to provide more information about the fauna and distribution of ichneumonid wasps of two largest subfamilies Cryptinae and Ichneumoninae in

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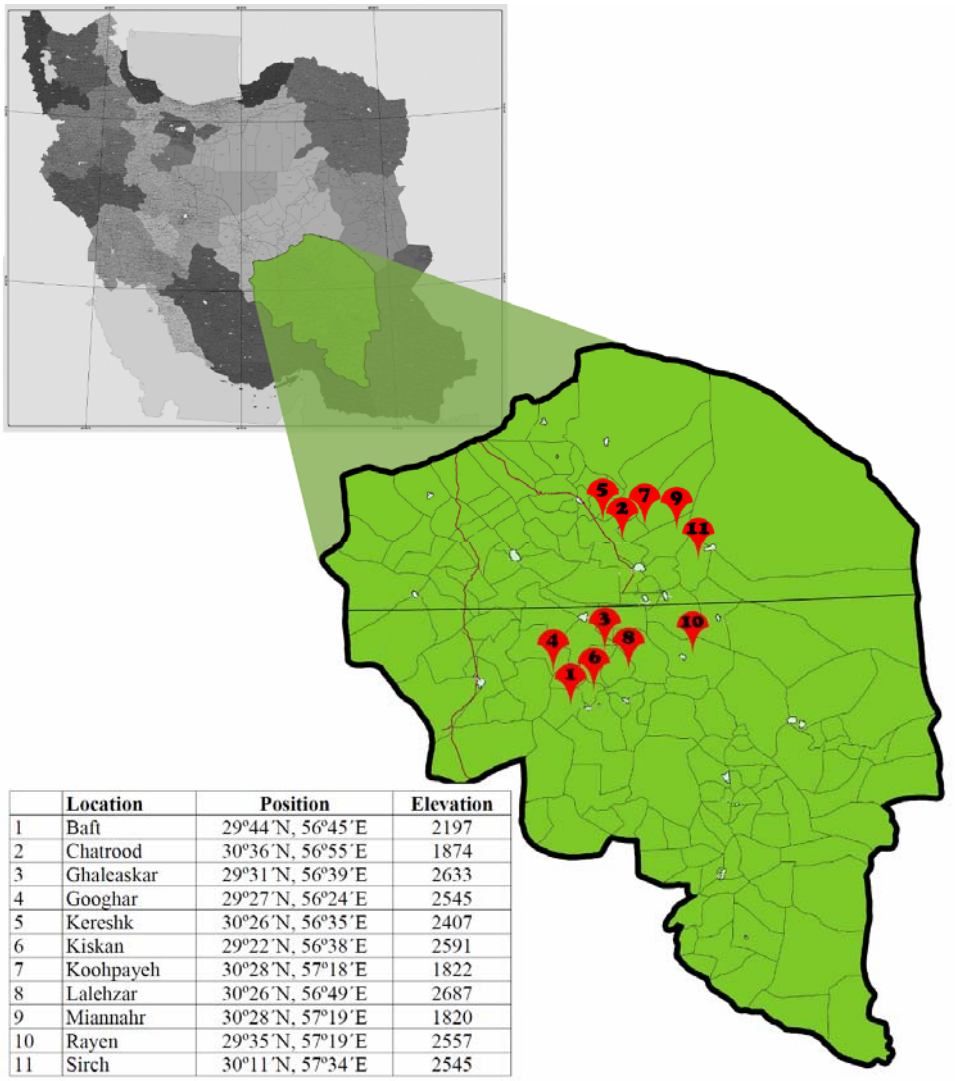
Kerman province, Southeast of Iran for using in biological control programs.

Materials and Methods

The ichneumonid specimens were collected using a standard sweeping net and Malaise traps at different places located in Kerman province (Fig. 1) in 2013. Twelve Malaise traps were used for collecting of samples. The traps were placed in different ecosystems, latitudes and altitudes. The specimens were collected from the traps and sorted weekly. The collected specimens were subsequently dried and mounted on cards. The external morphology of specimens was studied using NIKON™ SMZ645 stereomicroscope. Illustrations were taken using a Sony™ digital camera. Terminology of morphological characters follows Gauld (1991). The identity of new recorded species was confirmed by Matthias Riedel (Germany). Nomenclature and distributional data are mainly used from Yu *et al*. (2012). The specimens were deposited in the Insect Collection of SMM in Department of Biology, Shahid Bahonar University of Kerman, Iran.



	Location	Position	Elevation
1	Baft	29°44′N, 56°45′E	2197
2	Chatrood	30°36′N, 56°55′E	1874
3	Ghaleaskar	29°31′N, 56°39′E	2633
4	Googhar	29°27′N, 56°24′E	2545
5	Kereshk	30°26′N, 56°35′E	2407
6	Kiskan	29°22′N, 56°38′E	2591
7	Koohpayeh	30°28′N, 57°18′E	1822
8	Lalehzar	30°26′N, 56°49′E	2687
9	Miannahr	30°28′N, 57°19′E	1820
10	Rayen	29°35′N, 57°19′E	2557
11	Sirch	30°11′N, 57°34′E	2545

Figure 1 Map of the sampling localities at Kerman province.

Results

Totally, 150 specimens consisting of five species of Cryptinae belonging to four genera (40 specimens) and seven species of Ichneumoninae belonging to six genera (110 specimens) are reported here of which one genus (*Apaeleticus* Wesmael) and three species are new records for the fauna of Iran, indicated by an asterisk (*). All species are new records for the fauna of Kerman province. The list of the taxa arranged alphabetically.

Subfamily Cryptinae Kirby, 1837

***Cryptus inculcator* (Linnaeus, 1758)**

Material examined: 1♂, Malaise trap, Kerman-Kereshk, (N30º26' E56º35'), 27-V-2013; 1♀, Malaise trap, Kerman-Koohpayeh, (N30º28' E57º18'), 25-V-2013; 1♀, Malaise trap, Kerman-Sirch, (N30º11' E57º34'), 25-V-2013, leg.: Sh. Mohebban.

Known biology: This species is parasitoid of *Sesia apiformis* (Clerck, 1759) (Lep.: Sesiidae), *Agrotis vestigialis* (Hufnagel, 1766), *Hoplodrina ambigua* (Denis & Schiffermuller, 1775), *Panolis flammea* (Denis & Schiffermuller, 1775) (Lep.: Noctuidae), *Drymonia ruficornis* (Hufnagel, 1766) (Lep.: Notodontidae) and *Cimbex connata* (Schrank, 1776) (Hym.: Cimbicidae) (Yu *et al*., 2012).

Distribution in Iran: Alborz (Masnadi and Jussila, 2008a), Isfahan (Barahoei *et al*., 2014a), Sistan - Baluchestan (Firuzi Jahantighi *et al*., 2012; Barahoei *et al*., 2013) and Yazd provinces (Zarepour *et al*., 2008).

General distribution: Western Palaearctic (Yu *et al*., 2012).

***Dichrogaster longicaudata* (Thomson, 1884)**

Material examined: 1♂, Malaise trap, Kerman-Lalehzar, (N30º26' E56º49'), 27-X-2013; 3♀♀ and 7♂♂, Malaise trap, Kerman-Miannahr, (N30º28' E57º19'), 19-VI-2013; 3♀♀ and 4♂♂, Malaise trap, Kerman-Rayen, (N29º35' E57º19'), 11-VI-2013; 1♂, swept on *Medicago sativa* L., Kerman-Ghaleaskar, (N29º31' E56º39'), 07-XI-2013; 6♂♂, swept on *Medicago sativa*, Kerman-Kiskan, (N29º22' E56º38'), 09-XI-2013; 1♀, Malaise trap, Kerman-Koohpayeh, (N30º28' E57º18'), 19-VI-2013, leg.: Sh. Mohebban.

Known biology: This species is parasitoid of *Chrysoperla carnea* (Stephens, 1836) (Neuroptera: Chrysopidae) (Yu *et al*., 2012).

Distribution in Iran: Fars and Mazanderan provinces (Kolarov and Ghahari, 2007).

General distribution: Holarctic (Yu *et al*., 2012).

***Dichrogaster saharator* (Aubert, 1964)**

Material examined: 1♂, Malaise trap, Kerman-Chatrood, (N30º36' E56º55'), 03-VII-2013; 1♀ and 1♂, Malaise trap, Kerman-Rayen, (N29º35' E57º19'), 11-VI-2013, leg.: Sh. Mohebban.

Known biology: Not available

Distribution in Iran: Ardabil, Fars, Khuzestan, Mazandaran, Tehran, Zanjan (Kolarov and Ghahari, 2007), Isfahan (Barahoei *et al*., 2014a) and Sistan-Baluchestan provinces (Kolarov and Ghahari, 2007, Firuzi Jahantighi *et al*., 2012; Barahoei *et al*., 2013).

General distribution: Mediterranean and Middle East (Yu *et al*., 2012).

***Lysibia nana* (Gravenhorst, 1829)**

Material examined: 2♂♂, Malaise trap, Kerman-Koohpayeh, (N30º28' E57º18'), 25-V-2013, leg.: Sh. Mohebban.

Known biology: This species is hyperparasitoid or parasitoid of some species of Chalcidoidea and many species of Ichneumonoidea and Lepidoptera (Yu *et al*., 2012).

Distribution in Iran: Isfahan (Barahoei *et al*., 2014a), Mazandaran (Kolarov and Ghahari, 2007) and Qazvin provinces (Ghahari and Schwarz, 2012).

General distribution: Holarctic (Yu *et al*., 2012).

***Mesostenus albinotatus* Gravenhorst, 1829* (Figs. 2, 5C, 5D)**

Material examined: 1♂, Malaise trap, Kerman-Chatrood, (N30º36' E56º55'), 06-V-2013; 2♂, Malaise trap, Kerman-Chatrood, (N30º36' E56º55'), 03-VII-2013; 1♀, swept on *Medicago sativa*, Kerman-Googhar, (N29º27' E56º24'), 07-XI-2013; 1♀ and 1♂, swept on

Medicago sativa, Kerman-Kiskan, (N29º22' E56º38'), 09-XI-2013, leg.: Sh. Mohebban.
Known biology: This species is parasitoid of *Plodia interpunctella* (Hubner, 1813) (Lep.: Pyralidae) (Yu *et al*., 2012).
Distribution in Iran: Kerman province (new for Iranian fauna).
General distribution: Holarctic (Yu *et al*., 2012).
Diagnosis (Based on females): Body black (Figs. 2, 5C, 5D), clypeus strongly convex (Figs. 2A, 2B), upper margin of pronotum moderately swollen, epomia strong (Fig. 2D), propodeum weekly convex (Fig. 2D), petiole long, rather slender, ventro-lateral carina and sutures between tergite and sternite usually distinct (Fig. 2I), half of petiole and segments II-III brown (Figs. 2I, 5D), hind coxa and trochanter brown (Fig. 5D), ovipositor sheath equal to metasoma length and 2.5 times as long as hind tibia (Fig. 5D), body length 8-9 mm.

Subfamily Ichneumoninae Latreille, 1802
***Anisobas cingulatellus* Horstmann, 1997**
Material examined: 1♀ and 1♂, Malaise trap, Kerman-Kereshk, (N30º26' E56º35'), 05-VI-2013; 1♂, Malaise trap, Kerman-Miannahr, (N30º28' E57º19'), 19-VI-2013; 1♀ and 3♂♂, swept on *Medicago sativa*, Kerman-Baft, (N29º44' E56º45'), 29-VIII-2013; 3♀♀, swept on *M. Sativa*, Kerman-Ghaleaskar, (N29º31' E56º39'), 07-XI-2013; 14♀♀ and 18♂♂, swept on *M. sativa*, Kerman-Kiskan, (N29º22' E56º38'), 28-XI-2013, leg.: Sh. Mohebban.
Known biology: Members of this species are parasitoids of *Aricia agestis* (Denis & Schiffermuller, 1775); *Lycaena phlaeas* (Linnaeus, 1761); *Lysandra coridon* (Poda, 1761); *Polyommatus hispanus* Herrich-Schaffer, 1852; *P. icarus* (Rottemburg, 1775); *Plebejus argus* (Linnaeus, 1758) (Lep.: Lycaenidae) and *Phragmatiphila nexa* (Hubner, 1808) (Lep.: Noctuidae) (Yu *et al*., 2012).
Distribution in Iran: Semnan (Kolarov and Ghahari, 2008) and Tehran provinces (Masnadi and Jussila, 2008b).
General distribution: Western Palaearctic (Yu *et al*., 2012).

***Apaeleticus bellicosus* Wesmeal, 1845* (Figs. 3, 5A)**
Material examined: 2♀♀ and 2♂♂, Malaise trap, Kerman-Rayen, (N29º35', E57º19'), 07-VII-2013, leg.: Sh. Mohebban.
Known biology: Not available.
Distribution in Iran: Kerman province (genus and species are new for Iranian fauna).
General distribution: Western Palaearctic (Yu *et al*., 2012).
Diagnosis (Based on females): Face black with red pattern, anterior margin of clypeus without tooth (Fig. 3B), malar space equal to mandible base width, mandibles gradually narrowed to apex and sharply carinated along upper border (Fig. 3B), clypeus transverse, convex, clearly separated from face by impression (Figs. 3A, 3B), surface of face and frons punctured, collar of pronotum moderately long (Fig. 3D), mesonotum moderately convex, notauli distinct almost to middle, scutellum slightly convex, laterally carinated up to middle (Fig. 3E), propodeum with distinct division on horizontal and vertical parts, basal area deep with tooth (Fig. 3F), areolate pentagonal, stigma broad, nervulus interstitial (Fig. 3G), petiole at base practically not flattened, surface punctured by big smoothpunctures (Fig. 3H), all tergites shining, red, segments 4-5 dark brown, segments 6-7 with white posterior margin (Fig. 5A), sheath of ovipositor small, directed from hypopygium upwards (Fig. 5A), body length 7 mm.

***Barichneumon derogator* (Wesmeal, 1845)* (Figs. 4, 5B)**
Material examined: 1♂, Malaise trap, Kerman-Chatrood, (N30º36' E56º55'), 06-V-2013; 1♂, Malaise trap, Kerman-Lalehzar, (N30º26' E56º49'), 19-VI-2013; 1♂, Malaise trap, Kerman-Rayen, (N29º35' E57º19'), 11-VI-2013; 1♂, swept on *Medicago sativa*, Kerman-Kiskan, (N29º22' E56º38'), 28-XI-2013, leg.: Sh. Mohebban.
Known biology: Members of this species are parasitoids of *Chiasmia clathrata* (Linnaeus, 1758), *Macaria liturata* (Clerck, 1759) (Lep.: Geometridae), *Aphomia sociella* (Linnaeus, 1758) (Lep.: Pyralidae) and *Panolis*

flammea (Denis & Schiffermuller, 1775) (Lep.: Noctuidae) (Yu et al., 2012).
Distribution in Iran: Kerman province (new for Iranian fauna).
General distribution: Western Palaearctic (Yu *et al*., 2012).
Diagnosis (Based on males): Clypeus wide, separate from face by deep groove (Figs. 4A, 4B), mesoscutum covered by long hairs, notauli distinct, about half of scutellum white (Fig. 4E), propodeum with distinct carina, central part long (Figs. 4D, 4F), petiole with long setae in dorsal view (Fig. 4I), petiole and last segments black, sometimes with white pattern, with red or reddish yellow base (Fig. 5B), areolet pentagonal, with two bullae, nervulus vertical (Fig. 4G, 4H), fore femora white, tibiae and tarsi yellow with black pattern, hind femora reddish with black pattern, tibiae with white base (Fig. 5B), body length 7-8 mm.

***Ctenichneumon devylderi* (Holmgren, 1871)**
Material examined: 15♂♂, Malaise trap, Kerman-Chatrood, (N30º36' E56º55'), 03-VII-2013; 6♀♀ and 12♂♂, Malaise trap, Kerman-Miannahr, (N30º28' E57º19'), 03-VII-2013; 9♂♂, Malaise trap, Kerman-Sirch, (N30º11' E57º3'), 19-VI-2013, leg.: Sh. Mohebban.
Known biology: Not available.
Distribution in Iran: Qom province (Masnadi and Jussila, 2008b).
General distribution: Western Palaearctic (Yu *et al*., 2012).

***Ctenichneumon edictorius* (Linnaeus, 1758)**
Material examined: 3♂♂, Malaise trap, Kerman-Miannahr, (N30º28' E57º19'), 24-VII-2013; 1♂, Malaise trap, Kerman-Sirch, (N30º11' E57º34'), 19-VI-2013, leg.: Sh. Mohebban.
Known biology: Members of this species are parasitoids of *Inachis io* (Linnaeus, 1758), *Nymphalis antiopa* (Linnaeus, 1758) (Lep.: Nymphalidae), *Acronicta aceris* (Linnaeus, 1758), *Acronicta alni* (Linnaeus 1767) and *Mniotype adustus* (Esper, 1790) (Lep.: Noctuidae) (Yu et al., 2012).
Distribution in Iran: Guilan and Golestan provinces (Kolarov and Ghahari, 2005).
General distribution: Western Palaearctic (Yu *et al*., 2012).

***Diadromus collaris* (Gravenhorst, 1829)**
Material examined: 1♂, Malaise trap, Kerman-Rayen, (N29º35' E57º19'), 11-VI-2013; 1♀ and 2♂♂, swept on *M. sativa*, Kerman-Kiskan, (N29º22' E56º38'), 28-XI - 2013, leg.: Sh. Mohebban.
Known biology: This species is parasitoid of *Acrolepiopsis assectella* (Zeller, 1839), *Plutella xylostella* (Linnaeus, 1758) (Lep.: Plutellidae), *Lobesia (Polychrosis) botrana* (Denis & Schiffermuller, 1775) (Lep.: Tortricidae) (Yu et al., 2012).
Distribution in Iran: Golestan (Kolarov and Ghahari, 2008; Ghahari and Jussila, 2011), Isfahan (Afiunizadeh and Karimzadeh, 2010), Sistan - Baluchestan (Firuzi Jahantighi *et al*., 2012; Barahoei *et al*., 2013) and Semnan provinces (Ghahari, 2012).
General distribution: Palaearctic, Ethiopian (Yu *et al*., 2012).

***Heterischnus filiformis* (Gravenhorst, 1829)**
Material examined: 1♂, Malaise trap, Kerman-Chatrood, (N30º36' E56º55'), 03-VI-2013; 1♂, Malaise trap, Kerman-Koohpayeh, (N30º28' E57º19'), 25-V-2013; 3♂♂, Malaise trap, Kerman-Miannahr, (N30º28' E57º19'), 19-VI-2013; 1♀, Malaise trap, Kerman-Rayen, (N29º35' E57º19'), 24-VII-2013; 1♂, Malaise trap, Kerman-Sirch, (N30º11' E57º34'), 19-VI-2013; 3♂♂, swept on *M. sativa*, Kerman-Kiskan, (N29º22' E56º38'), 28-XI-2013, leg.: Sh. Mohebban.
Known biology: This species is parasitoid of *Xestia collina* (Boisduval, 1840) (Lep.: Noctuidae) (Yu et al., 2012).
Distribution in Iran: Isfahan province (Barahoei *et al*., 2015).
General distribution: Western Palaearctic (Yu *et al*., 2012).

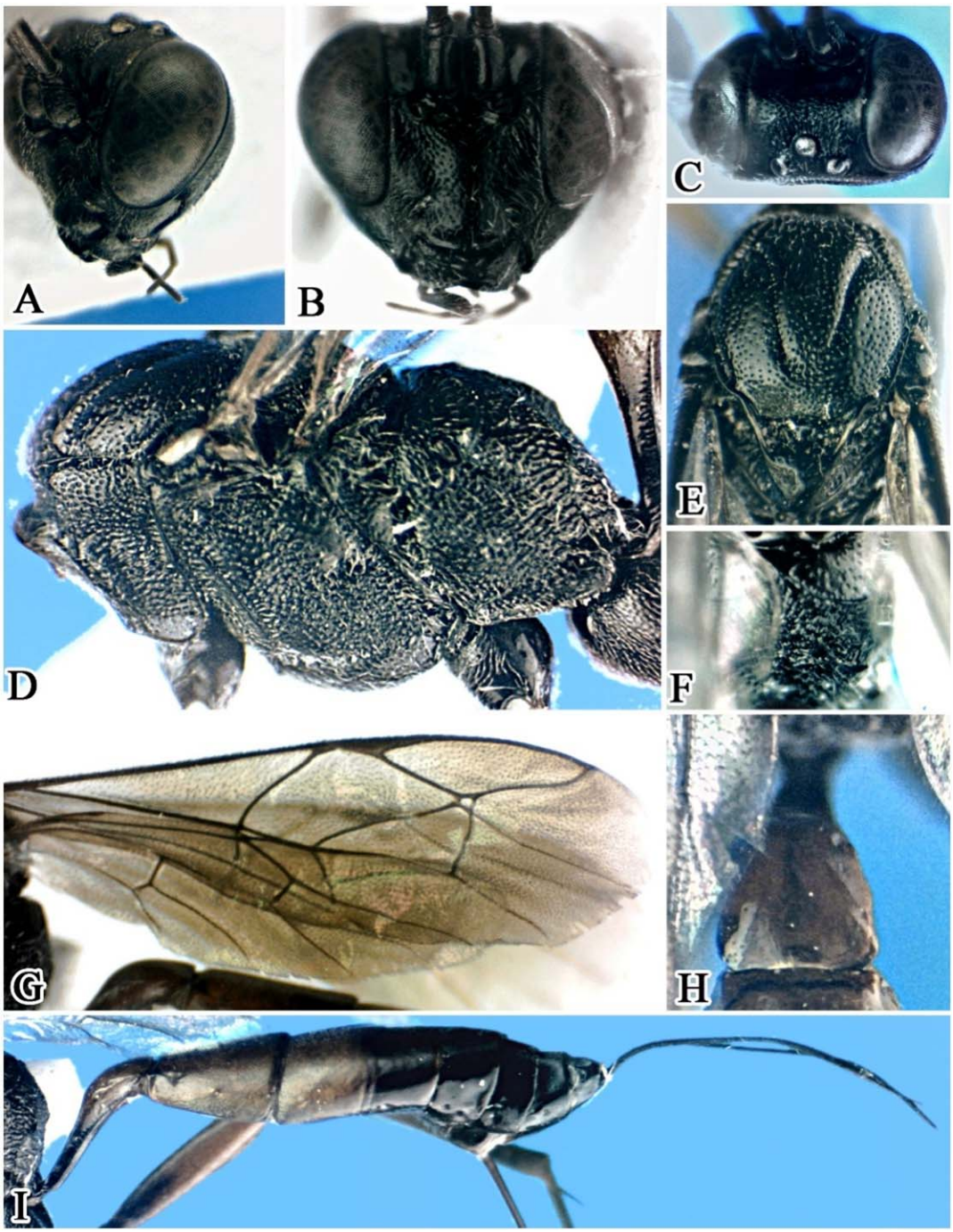


Figure 2 The external morphology of female specimen of *Mesostenus albinotatus* Gravenhorst: A-lateral view of head; B-frontal view of head; C-dorsal view of head; D-thorax; E-mesoscutum; F-propodeum; G-fore and hind wings; H-petiole; I-lateral aspect of the gaster and ovipositor.

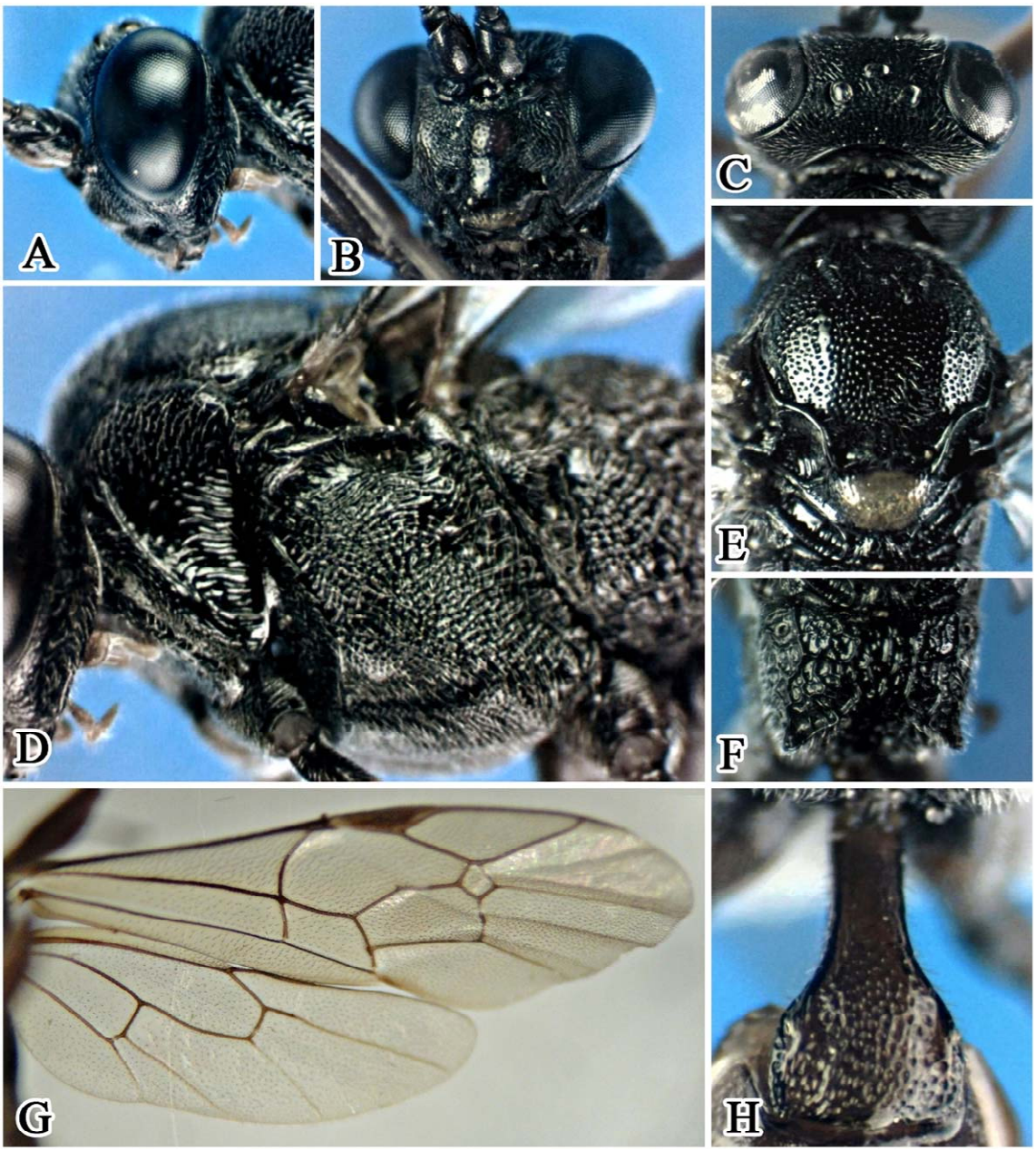


Figure 3 The external morphology of female specimen of *Apaeleticus bellicosus* Wesmeal: A-lateral view of head; B-frontal view of head; C-dorsal view of head; D-thorax; E-mesoscutum; F-propodeum; G-forewing; H-petiole.

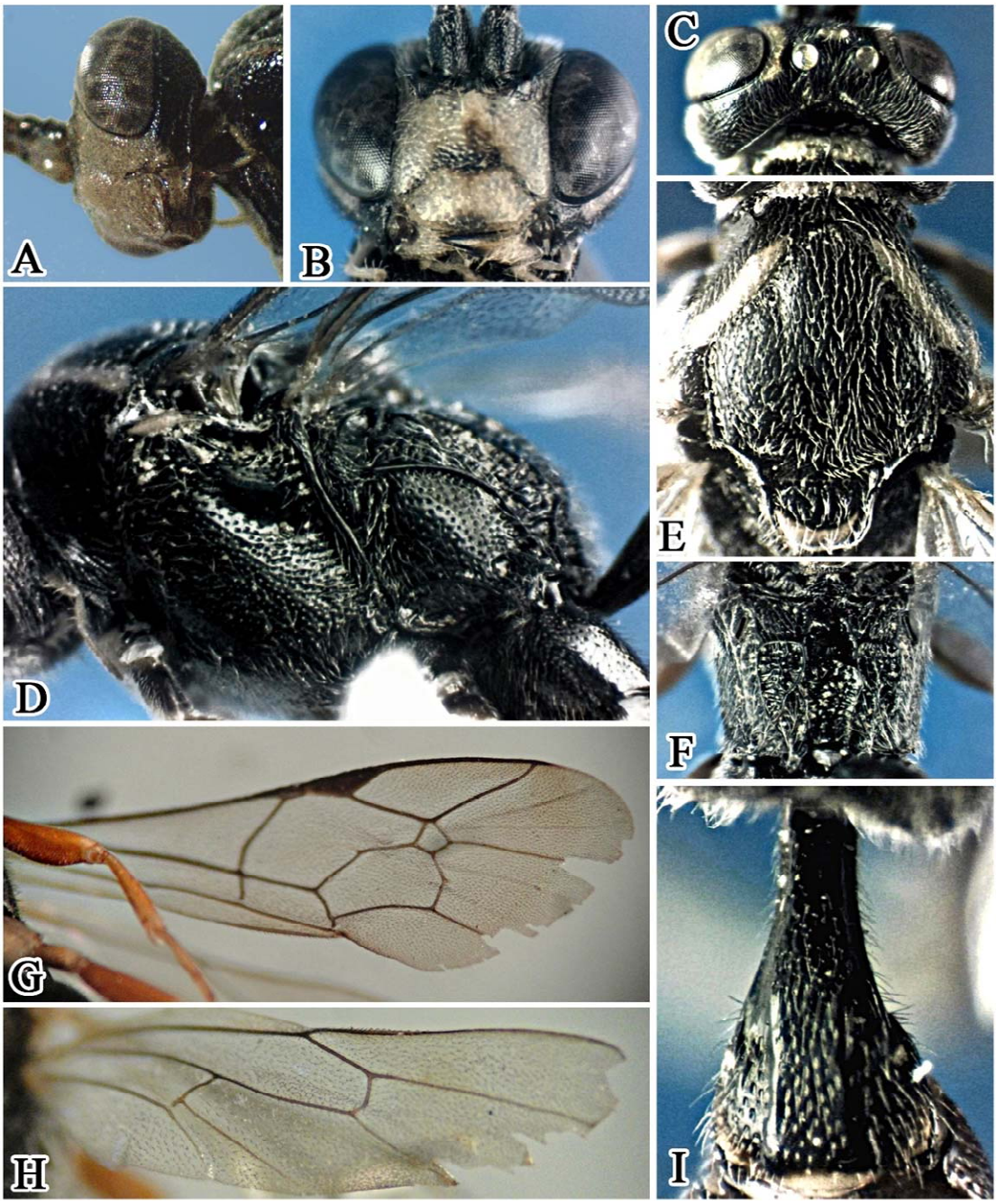


Figure 4 The external morphology of female specimen of *Barichneumon derogator* (Wesmeal): A-lateral view of head; B-frontal view of head; C-dorsal view of head; D-thorax; E-mesoscutum; F-propodeum; G-fore wing; H-hind wing; I-petiole.

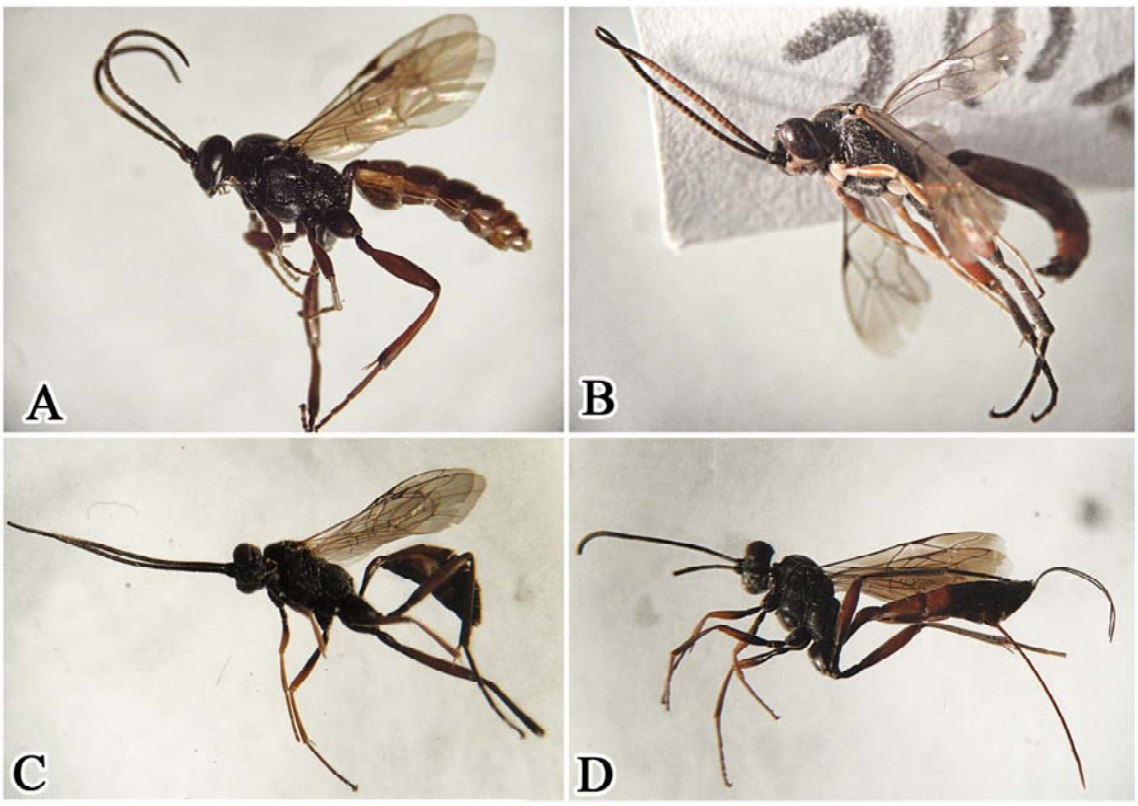


Figure 5 Adult specimens: A-female of *Apaeleticus bellicosus* Wesmeal; B-male of *Barichneumon derogator* (Wesmeal); C-male of *Mesostenus albinotatus* Gravenhorst; D-female of *Mesostenus albinotatus* Gravenhorst.

Discussion

Twelve species of two Subfamilies, Cryptinae and Ichneumoninae were identified and recorded from Kerman province, southeast Iran. One genus and three species were recorded for the first time for the fauna of Iran. Until now, only five species from the subfamily Cryptinae (Barahoei *et al*., 2012) (Table 1) and three species from the subfamily Ichneumoninae (Barahoei *et al*., 2012; Kazemi *et al*., 2014) (Table 1) have been reported from Kerman province.

The zoogeographic characterization of the collected species in the present study is based on the chorotype classification of the Near East fauna suggested by Taglianti *et al.* (1999). With regard to recent geographical distribution of the species, we can group them as follow: a) Species with Holarctic chorotypes: *Dichrogaster longicaudata*, *Lysibia nana* and *Mesostenus albinotatus.* b) West Palaearctic chorotypes include: *Cryptus inculcator*, *Anisobas cingulatellus*, *Apaeleticus bellicosus*, *Barichneumon derogastor*, *Ctenichneumon devylderi*, *C. edictorius* and *Heterischnus filiformis*. c) Species with distribution through two zoogeographic regions: *Diadromus collaris* with distribution in the Palaearctic and Ethiopian regions. d) Species with Turano-Mediterranean chorotypes which include only one species, *D. saharator*. *Gelis kermaniae* which already reported from Kerman province, can be regarded as endemic species with Turanian range. Most numerous species collected in the present study are the species with West-Palaearctic chorotype. The newly recorded genus, *Apaeleticus* contains 11 species worldwide (Yu et al., 2012) of which two species, *Apaeleticus americanus* Cushman,

1926 and *Apaeleticus brunnescens* Heinrich, 1962 have only Nearctic distribution. Three other species are regarded as endemic species: *Apaeleticus hungaricus* Strobl, 1901 which is restricted to Hungary, *Apaeleticus nigriventris* Pic, 1914, is restricted to Algeria and *Apaeleticus tonkinensis* Riedel, 2011, distributed in Vietnam (Yu et al., 2012). The remainder of the species including *A. bellicosus* (six species) are distributed in the Palaearctic region (mainly in European countries) except *Apaeleticus kriechbaumeri* Costa, 1885, which is distributed in France, Italy and Tunisia. In this study some habitats in north, northwestern and parts of southern parts of the Kerman province have not been surveyed in detail.

The province is among the rare regions that possesses the variety of climates and different aspects of environmental forms and probably with more extensive investigations the number of species in the future checklists will be increased and even new species and/or new records for Kerman province and Iran may be added. Most of the species collected in the present study are lepidopteran parasitoids, which are important pests of agricultural plants. As collected species are parasitoids of other ichneunomid and/or chalcidoid species but no information is available on host association of these species in Iran. Further studies are necessary to reveal the potential of these species for biological control programs.

Table 1 The species of Cryptinae and Ichneumoninae of Kerman province.

Subfamily	Species	Reference
Cryptinae	*Bathythrix maculata* (Hellén, 1957)	Kolarov and Ghahari (2007)
	Cryptus inculcator (Linnaeus, 1758)	New record for Kerman fauna
	Dichrogaster longicaudata (Thomson, 1884)	New record for Kerman fauna
	Dichrogaster saharator (Aubert, 1964)	New record for Kerman fauna
	Gelis exareolatus (Förster, 1850)	van Achterberg and Mehrnejad (2002)
	Gelis kermaniae Schwarz, 2009	Schwarz (2009)
	Gelis liparae (Giraud, 1863)	van Achterberg and Mehrnejad (2002)
	Lysibia nana (Gravenhorst, 1829)	New record for Kerman fauna
	Mesostenus albinotatus Gravenhorst, 1829	New record for Iran (Kerman) fauna
	Meringopus sogdianus (Maljavin, 1968)	Kolarov and Ghahari (2005)
Ichneumoninae	*Anisobas cingulatellus* Horstmann, 1997	New record for Kerman fauna
	Apaeleticus bellicosus Wesmeal, 1845	New record for Iran (Kerman) fauna
	Barichneumon derogator (Wesmeal, 1845)	New record for Iran (Kerman) fauna
	Cratichneumon semirufus (Gravenhorst, 1820)	Kolarov and Ghahari (2008)
	Ctenichneumon devylderi (Holmgren, 1871)	New record for Kerman fauna
	Ctenichneumon edictorius (Linnaeus, 1758)	New record for Kerman fauna
	Diadromus collaris (Gravenhorst, 1829)	New record for Kerman fauna
	Dicaelotus montanus (di Stefani, 1885)	Kazemi *et al*. (2014)
	Eutanyacra picta (Schrank, 1776)	Kolarov and Ghahari (2008)
	Heterischnus filiformis (Gravenhorst, 1829)	New record for Kerman fauna

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گزارش جدید از زیرخانواده‌های Cryptinae و Ichneumoninae (Hym.: Ichneumonidae) در استان کرمان، جنوب شرق ایران

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چکیده: تحقیق حاضر شامل اطلاعات گونه‌های دو زیرخانواده Cryptinae و Ichneumoninae جمع‌آوری شده از استان کرمان در سال ۱۳۹۲ می‌باشد. در مجموع ۱۲ گونه متعلق به ۱۰ جنس از این دو زیرخانواده به شرح زیر است: *Cryptus inculcator* (Linnaeus, 1758)، *Dichrogaster longicaudata* (Thomson, 1884)، *Dichrogaster saharator* (Aubert, 1964)، *Mesostenus albinotatus* Gravenhorst, 1829 و *Lysibia nana* (Gravenhorst, 1829) از زیرخانواده Cryptinae و *Anisobas cingulatellus* Horstmann, 1997، *Apaeleticus bellicosus* Wesmeal, 1845 (Wesmeal, 1845)، *Barichneumon derogator*، *Ctenichneumon devylderi* (Holmgren, 1871)، *Ctenichneumon edictorius* (Linnaeus, 1758)، *Diadromus collaris* (Gravenhorst, 1829) و *Heterischnus filiformis* (Gravenhorst, 1829) از زیرخانواده Ichneumoninae، که جنس *Apaeleticus* Wesmael و سه گونه *M. albinotatus*، *A. bellicosus* و *B. derogator* برای اولین بار از ایران گزارش می‌شوند. همه گونه‌ها گزارش جدید برای استان کرمان می‌باشند.

واژگان کلیدی: گزارش جدید، زنبور پارازیتوئید، سیستماتیک، تاکسونومی، *Apaeleticus*