

AN ADDITIONAL LIST WITH NEW RECORDS OF BRACONID WASPS OF THE FAMILY Braconidae (Hymenoptera) FROM VIETNAM

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ABSTRACT: Braconidae (Hymenoptera) is one of two most diverse families of Hymenoptera and both belong to the superfamily Ichneumonoidea, most braconid wasps are known as parasitoids of other insects damaging agricultural crops, many members of the parasitic braconid wasps are the important agents for biological control of insect pests. This paper presented the list of 210 braconid wasps of the family Braconidae from Vietnam with the information of the museums where the types are deposited, the published papers of the first record of braconid species in Vietnam, hosts and distribution of braconid species. Sixty two species recorded for the first time from Vietnam, which is 12.6% of the 492 braconid species belonging to 24 subfamilies now known from Vietnam. Additionally, there are 18 species listed with information about their hosts, being agricultural pests controlled to some degree by these parasitoids.

Keywords: Ichneumonoidea, Braconidae, checklist, distribution, diversity, new record, parasitoids, types, Vietnam.

INTRODUCTION

The family Braconidae is the second-most species-rich group of the Hymenoptera and its members of this family occur world-wide. Braconid wasps are either ectoparasitoids or entoparasitoids of other insects. Braconids are essential to maintain an ecological balance in ecosystems because of their ability to respond in a density-dependent manner to the population size of their hosts. Several of them may be able to regulate the density of agricultural insect pests.

This is the third list of species of the family Braconidae of Vietnam that were reported in published papers. The first list compiled in 2003 by Khuat Dang Long & Belokobylskij (2003)[29] contained 257 species belonging to 21 subfamilies, and the second paper published by Khuat Dang Long (2004) [12] reported an additional list of 25 species. Since 2004 hundreds of Vietnamese braconid wasps were recorded and described as new species [2, 14-15, 17, 19-28, 30-31]. In this paper we aim to provide an additional list of wasp species of the family Braconidae from Vietnam that were reported in the period 2004-2014.

MATERIALS AND METHODS

This study is based on specimens deposited in the Parasitic Hymenoptera Collections at the Institute of Ecology and Biological Resources (IEBR) and Vietnam National Museum of Nature (VNMN), Vietnam Academy of Science and Technology (VAST). The distribution of the species within Vietnam is indicated in order of areas, provinces (in brackets) from north to south, and outside Vietnam distribution (countries and/or regions) of species follows in the alphabetical order (Yu et al., 2012) [34]. For every species in this list we included the page of the first citing of species for Vietnam except for 62 species indicated by an asterisk recorded for the first time from Vietnam. The mark “?” is put if no detail information of type and type location. All the abbreviations used in the paper as follows:

AEI: American Entomological Institute, Gainesville (USA); ANIC: Australian National Insect Collection, Canberra (Australia); ASIZ: Academia Sinica, Institute of Zoology, Beijing (China); BAU: Beijing Agricultural University, Beijing (China); BPBM: Bernice P. Bishop Museum, Honolulu (USA); BMNH: Natural History Museum, London (United Kingdom); CNC: Canadian National Collection, Ottawa

(Canada); EIHU: Faculty of Agriculture, Hokkaido University, Sapporo (Japan); FAU: Fujian Agricultural & Forestry University, Fuzhou (China); HIC: Hymenoptera Institute Collection, University of Kentucky, Lexington (USA); IEBR: Institute of Ecology and Biological Resources, Hanoi (Vietnam); MNHN: National Museum of Natural History, Paris (France); NMI: National Museum of Ireland, Kildare Street, Dublin (Ireland); NRS: Naturhistoriska Riksmuseet, Stockholm (Sweden); PAN: Polska Akademia Nauk, Warsaw (Poland); QSBG: Queen Sirikit Botanic Gardens, Chiang Mai (Thailand); RMNH: Naturalis Biodiversity Center, Leiden (The Netherlands); TARI: Taiwan Agricultural Research Institute, Entomology Collection, Taichung (Taiwan); SDEI: Senckenberg Deutsche Entomologische Institute, Müncheberg (Germany); SWDZI: Zoologiska Institutionen, Lund (Sweden); TAMU: Texas A & M University, College Station (USA); TMA: Termesztudományi Múzeum Alattara, Budapest (Hungary); UMO: Hope Entomological Collection, University Museum, Oxford (United Kingdom); USNM: National Museum of Natural History, Washington D.C. (USA); VNMN: Vietnam National Museum of Nature, Hanoi (Vietnam); ZISP: Zoological Institute, Saint Petersburg (Russia); ZJUH: Parasitic Hymenoptera Collection of Zhejiang University, Hangzhou (China); ZMHU: Zoologisches Museum der Humboldt Universität, Berlin (Germany); ZMU: Zoological Museum, Uppsala (Sweden); The abbreviation of areas: N= North, S= South, C= Central, NC= North Central, NE= Northeast, NW= Northwest.

RESULTS AND DISCUSSION

List of Braconidae from Vietnam 2004-2014

Subfamily AGATHIDINAE Nees, 1814

1. *Agathis citrinisoma* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH).
van Achterberg & Long, 2010: 18.
Distribution: S Vietnam (Dak Lak).
2. *Bassus albifasciatus* (Watanabe, 1934)
Type: lectotype, ♀ (SDEI).
van Achterberg & Long, 2010: 22.
Distribution: NE Vietnam (Ha Giang, Ninh Binh), S Vietnam (Dong Nai); China; Japan; Korea.
3. *Bassus albobasalis* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH); paratypes, 7♀ (IEBR, RMNH).
van Achterberg & Long, 2010: 22.
Distribution: NC Vietnam (Thua Thien-Hue), S Vietnam (Dak Lak).
4. *Bassus albozonatus* van Achterberg & Long, 2010
Type: holotype, ♂ (RMNH); paratypes, 2♂ (IEBR, RMNH).
van Achterberg & Long, 2010: 26.
Distribution: NE Vietnam (Ninh Binh), S NW (Dak Lak).
5. *Biroia soror* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH); paratypes, 12♀ (IEBR, RMNH).
van Achterberg & Long, 2010: 29.
Distribution: S Vietnam (Dong Nai).
6. *Braunsia bicolorata* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH); paratypes, 2♀ 5♂ (IEBR, RMNH).
van Achterberg & Long, 2010: 33.
Distribution: NW Vietnam (Lao Cai, Hoa Binh).
7. *Braunsia devriesi* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH).
van Achterberg & Long, 2010: 36.
Distribution: NW Vietnam (Phu Tho).
8. *Braunsia maculifera* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH).
Van Achterberg & Long, 2010: 39.
Distribution: NW Vietnam (Phu Tho).
9. *Braunsia nigrapiculata* van Achterberg & Long, 2010

- Type: holotype, ♀ (RMNH); paratype, ♀ (IEBR).
van Achterberg & Long, 2010: 42.
Distribution: C Vietnam (Thua Thien-Hue, Quang Nam).
10. *Braunsia pumatica* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH); paratypes, 7♀ (IEBR, RMNH).
van Achterberg & Long, 2010: 45.
Distribution: NW Vietnam (Phu Tho), C Vietnam (Nghe An), S Vietnam (Dak Lak).
11. *Camptothlipsis hanoiensis* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH), 1♀+1♂ (IEBR, RMNH).
van Achterberg & Long, 2010: 48.
Distribution: N Vietnam (Hanoi).
12. *Coccygidium angostura* (Bhat & Gupta, 1977)
Type: holotype, ♀, (USNM).
van Achterberg & Long, 2010: 51.
Distribution: NW Vietnam (Hoa Binh); China.
13. *Coronagathis cornifera* van Achterberg & Long, 2010
Type: holotype, ♂ (RMNH).
van Achterberg & Long, 2010: 53.
Distribution: NW Vietnam (Lao Cai).
14. *Cremnops atricornis* (Smith, 1874)
Type: holotype, ♀, (BMNH).
van Achterberg & Long, 2010: 56.
Distribution: NE Vietnam (Ha Giang), NW Vietnam (Phu Tho), NC Vietnam (Nghe An), S Vietnam (Dong Nai, Kien Giang, Ninh Thuan); China; India; Indonesia; Japan; Korea.
15. *Disophrys erythrocephala* Cameron, 1900
Type: “?”, ♀ (UMO).
van Achterberg & Long, 2010: 59.
Distribution: NW Vietnam (Hoa Binh), NC Vietnam (Nghe An), S Vietnam (Dak Lak); China; India; Indonesia; Malaysia; Sri Lanka; Thailand.
16. *Disophrys maculifera* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH); paratypes, 1♀4♂ (IEBR, RMNH).
van Achterberg & Long, 2010: 59.
Distribution: NC Vietnam (Ha Tinh), S Vietnam (Dong Nai).
17. *Disophrys quymanhi* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH); paratype ♀ (IEBR).
van Achterberg & Long, 2010: 62.
Distribution: NC Vietnam (Nghe An), S Vietnam (Dong Nai).
18. *Disophrys rhinoides* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH); paratypes, 8♀ 2♂ (IEBR, RMNH).
van Achterberg & Long, 2010: 65.
Distribution: NE Vietnam (Thai Nguyen), NW Vietnam (Hoa Binh), NC Vietnam (Nghe An).
19. *Earinus aurantius* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH).
van Achterberg & Long, 2010: 68.
Distribution: NW Vietnam (Lao Cai).
20. *Earinus brevistigmus* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH).
van Achterberg & Long, 2010: 71.
Distribution: S Vietnam (Lam Dong).
21. *Euagathis flavosoma* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH).
van Achterberg & Long, 2010: 79.
Distribution: S Vietnam (Tay Ninh).
22. *Euagathis maculipennis* (Brullé, 1846)
Type: lectotype, ♂ (MNHN).
van Achterberg & Long, 2010: 84
Distribution: NC Vietnam (Ha Tinh, Nghe An); China; India.
23. *Euagathis mayunae* van Achterberg & Chen, 2002
Type: holotype, ♀ (ZJUH).
van Achterberg & Long, 2010: 85.

- Distribution: N Vietnam (Hai Phong); China.
24. *Gyrogathis quy* van Achterberg & Long, 2010
 Type: holotype, ♀ (RMNH).
 van Achterberg & Long, 2010: 88.
 Distribution: Vietnam (Ninh Binh).
25. *Gyrochus yuananensis* Wang, 1984
 Type: holotype, ♀ (ASIZ).
 van Achterberg & Long, 2010: 91.
 Distribution: S Vietnam (Dak Lak); China.
26. *Lytopylus romani* (Shestakov, 1940)
 Type: “?”, ♀ (NRS).
 van Achterberg & Long, 2010: 93.
 Distribution: NW Vietnam (Hoa Binh, Lao Cai); from India to Japan.
27. *Therophilus annuliferus* van Achterberg & Long, 2010
 Type: holotype, ♀ (RMNH); paratypes, 2♀ (IEBR; RMNH)
 van Achterberg & Long, 2010: 98.
 Distribution: C Vietnam (Thua Thien-Hue), S Vietnam (Dak Lak).
28. *Therophilus cattienensis* van Achterberg & Long, 2010
 Type: holotype, ♀ (RMNH); paratypes, 2♂ (IEBR, RMNH).
 van Achterberg & Long, 2010: 102.
 Distribution: S Vietnam (Dak Lak, Dong Nai).
29. *Therophilus contrastus* van Achterberg & Long, 2010
 Type: holotype, ♀ (RMNH); paratypes, 3♀ (IEBR, RMNH).
 van Achterberg & Long, 2010: 103.
 Distribution: N Vietnam (Hanoi), S Vietnam (Dong Nai).
30. *Therophilus crenulisulcatus* van Achterberg & Long, 2010
 Type: holotype, ♀ (RMNH).
 van Achterberg & Long, 2010: 107.
 Distribution: NW Vietnam (Lao Cai).
31. *Therophilus depressiferus* van Achterberg & Long, 2010
 Type: holotype, ♀ (RMNH); paratypes, 2♀ (IEBR, RMNH).
 van Achterberg & Long, 2010: 110.
 Distribution: NE Vietnam (Ninh Binh), S Vietnam (Dong Nai).
32. *Therophilus elongator* van Achterberg & Long, 2010
 Type: holotype, ♀ (RMNH).
 van Achterberg & Long, 2010: 114.
 Distribution: NC Vietnam (Ha Tinh).
33. *Therophilus festivus* (Muesebeck, 1953)
 Type: holotype, ♀ (USNM).
 van Achterberg & Long, 2010: 115.
 Distribution: NE Vietnam (Ha Giang, Vinh Phuc), NW Vietnam (Hoa Binh, Lao Cai), C Vietnam (Quang Tri), S Vietnam (Dong Nai); India; Japan; Korea; Nepal; Philippines; Russia (Far East); Introduced into USA..
34. *Therophilus javanus* (Bhat & Gupta, 1977) (= *Baeognatha javana* Bhat & Gupta, 1977: Long & Belokobylskij, 2003: 386)
 Type: (?), ♀ (USNM).
 van Achterberg & Long, 2010: 118.
 Distribution: NE Vietnam (Bac Ninh, Hanoi), C Vietnam (Quang Nam), S Vietnam (Lam Dong); Indonesia and Malaysia.
35. *Therophilus levisoma* van Achterberg & Long, 2010
 Type: holotype, ♀ (RMNH); paratypes, 2♀ 2♂ (IEBR, RMNH).
 van Achterberg & Long, 2010: 118.
 Distribution: NW Vietnam (Lao Cai).
36. *Therophilus lienhoachihensis* (Chou & Sharkey, 1989)
 Type: holotype, ♀ (TARI).
 van Achterberg & Long, 2010: 122.
 Distribution: NE Vietnam (Ha Giang, Vinh Phuc), NC Vietnam (Ha Tinh); China.
37. *Therophilus marshi* (Bhat & Gupta, 1977)
 Type: holotype, ♀ (Gupta collection, USA).
 van Achterberg & Long, 2010: 122.
 Distribution: NE Vietnam (Ha Giang), NC Vietnam (Ha Tinh), S Vietnam (Dong Nai); Malaysia.
38. *Therophilus maruca* van Achterberg & Long, 2010

- Type: holotype, ♀ (RMNH); paratypes, 2♀
8♂ (IEBR, RMNH).
van Achterberg & Long, 2010: 122.
Hosts: Pod bean borer *Maruca vitrata* (Fabricus) and *Etiella zinckenella* (Treitschke)(Pyralidae) on soybean and black bean.
Distribution: NE Vietnam (Bac Ninh, Hanoi), S Vietnam (Lam Dong).
39. *Therophilus mellisoma* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH); paratypes, 2♀ (IEBR, RMNH).
Van Achterberg & Long, 2010: 127.
Distribution: NW Vietnam (Hoa Binh), NC Vietnam (Nghe An).
40. *Therophilus nigrolineatus* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH); paratypes, 15♀ 4♂ (IEBR, RMNH).
van Achterberg & Long, 2010: 130.
Distribution: S Vietnam (Dong Nai).
41. *Therophilus nuichuaensis* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH); paratypes, 1♀ 4♂ (IEBR, RMNH)
van Achterberg & Long, 2010: 133
Distribution: S Vietnam (Ninh Thuan).
42. *Therophilus parasper* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH).
van Achterberg & Long, 2010: 137.
Distribution: NW Vietnam (Lao Cai).
43. *Therophilus planifrons* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH).
van Achterberg & Long, 2010: 139.
Distribution: NW Vietnam (Lao Cai).
44. *Therophilus punctiscutum* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH).
van Achterberg & Long, 2010: 142.
Distribution: NW Vietnam (Hoa Binh).
45. *Therophilus robustus* van Achterberg & Long, 2010
Type: holotype, ♂ (RMNH).
van Achterberg & Long, 2010: 145.
Hosts: Bean leaffolder *Omiodes indicata* (Fabricus) (Pyralidae) on soybean.
Distribution: N Vietnam (Hanoi).
46. *Therophilus rugosiferus* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH); paratypes, 1♀ 1♂ (IEBR, RMNH).
van Achterberg & Long, 2010: 148.
Distribution: NW Vietnam (Lao Cai, Hoa Binh).
47. *Therophilus scutellatus* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH).
van Achterberg & Long, 2010: 151.
Distribution: NE Vietnam (Ninh Binh).
48. *Troticus alloflavus* van Achterberg & Long, 2010
Type: holotype, ♀ (IEBR).
van Achterberg & Long, 2010: 155.
Distribution: S Vietnam (Kien Giang).
49. *Troticus giganteus* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH).
van Achterberg & Long, 2010: 157.
Distribution: NC Vietnam (Nghe An).
50. *Zelodia absoluta* (Chen & Tang, 1998)
Type: holotype, ♀ (FAU).
van Achterberg & Long, 2010: 162.
Distribution: NE Vietnam (Ha Giang, Ninh Binh), NW Vietnam (Hoa Binh), NC Vietnam (Ha Tinh), C Vietnam (Thua Thien-Hue); China.
51. *Zelodia albobasalis* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH).
van Achterberg & Long, 2010: 164.
Distribution: S Vietnam (Dong Nai).
52. *Zelodia anginota* van Achterberg & Long, 2010
Type: holotype, ♀ (RMNH); paratype, ♀ (IEBR).
van Achterberg & Long, 2010: 167.

- Distribution: NW Vietnam (Phu Tho), S Vietnam (Dak Lak).
53. *Zelodia bicoloristigma* van Achterberg & Long, 2010
 Type: holotype, ♀ (RMNH); paratypes, 4♀ 6♂ (IEBR, RMNH).
 van Achterberg & Long, 2010: 170.
 Distribution: NW Vietnam (Lai Chau, Lao Cai, Phu Tho), NC Vietnam (Nghe An, Ha Tinh, Thua Thien-Hue).
54. *Zelodia brevifemoralis* van Achterberg & Long, 2010
 Type: holotype, ♀ (RMNH); paratypes, 1♀ 6♂ (IEBR, RMNH).
 van Achterberg & Long, 2010: 173.
 Distribution: NE Vietnam (Ha Giang), NC Vietnam (Ha Tinh), S Vietnam (Kon Tum).
55. *Zelodia flavistigma* van Achterberg & Long, 2010
 Type: holotype, ♀ (RMNH); paratypes, 9♀ 14♂ (RMNH, IEBR).
 van Achterberg & Long, 2010: 176.
 Distribution: S Vietnam (Dak Lak, Lam Dong, Pleicu, Tay Ninh).
56. *Zelodia longidorsata* (Bhat & Gupta, 1977)
 Type: (?), ♀ (CNC).
 van Achterberg & Long, 2010: 179.
 Distribution: NC Vietnam (Nghe An); China; Thailand.
57. *Zelodia microcellata* van Achterberg & Long, 2010
 Type: holotype, ♂ (RMNH).
 van Achterberg & Long, 2010: 180.
 Distribution: C Vietnam (Thua Thien-Hue).
- Subfamily APHIDIINAE Haliday, 1833**
58. *Aphidius colemani* Viereck, 1912
 Type: holotype, ♀ (USNM).
 Khuat Dang Long, Pham Van Lam, 2006: 496.
 Hosts: *Brevicoryne brassicae* on cabbage, *Myzus persicae* on tabaco.
 Distribution: N Vietnam (Hanoi), S Vietnam (Lam Dong); Australasian; Eastern Palaearctic; Ethiopian; Europe; Nearctic; Neotropical; Oceanic; Oriental; Western Palaearctic.
59. *Aphidius rosae* Haliday, 1833
 Type: lectotype ♀ (BMNH).
 Khuat Dang Long, Pham Van Lam, 2006: 498.
 Hosts: *Brevicoryne brassicae* on cabbage, *Myzus persicae* on tabaco.
 Distribution: N Vietnam (Hanoi); Eastern Palaearctic; Europe; Nearctic; Neotropical; Oceanic; Oriental; Western Palaearctic.
60. *Binodoxys brevicornis* (Haliday, 1833)
 Type: (?), ♀ (BMNH).
 Khuat Dang Long, Pham Van Lam, 2006: 501.
 Hosts: *Schizaphis graminum* on rice.
 Distribution: N Vietnam (Hanoi); Eastern Palaearctic; Europe; Neotropical; Oriental; Western Palaearctic.
61. *Diaeretiella rapae* (M'Intosh, 1855)
 Type: “?”, (?).
 Khuat Dang Long, Nguyen Thi Kim Oanh, Tran Thi Thuy, 1996: 31; Khuat Dang Long, Pham Van Lam, 2006: 499.
 Hosts: *Brevicoryne brassicae* on cabbage, *Myzus persicae*.
 Distribution: N Vietnam (Hanoi); Australasian; Eastern Palaearctic; Ethiopian; Europe; Nearctic; Neotropical; Oceanic; Oriental; Western Palaearctic.
62. *Lysiphlebia japonica* (Ashmead, 1906)
 Type: lectotype, ♀ (USNM).
 Starý & Zeleny, 1983: 190-195; Khuat Dang Long, Pham Van Lam, 2006: 500.
 Hosts: *Aphis gossipii* on soybean.
 Distribution: N Vietnam (Hanoi); China; India; Japan; Korea.
- Subfamily BBETYLOBRACONINAE Tobias, 1979**
63. *Aulosaphobracon capitatus* Belokobylskij et Long, 2005
 Type: holotype, ♀ (ZISP); paratype, ♀ (ZISP).
 Belokobylskij et Long, 2005: 157.
 Distribution: NW Vietnam (Hoa Binh).
64. *Facitorus granulatus* Belokobylskij et Long, 2005

- Type: holotype, ♂ (ZISP); paratypes, 13♂(IEBR, ZISP)
 Belokobylskij et Long, 2005: 159.
 Distribution: NW Vietnam (Hoa Binh), NE Vietnam (Vinh Phuc).
65. *Facitorus tamdaoensis* Belokobylskij et Long, 2005
 Type: holotype, ♀ (ZISP).
 Belokobylskij et Long, 2005: 162.
 Distribution: NE Vietnam (Vinh Phuc).
- Subfamily CARDIOCHILINAE Ashmead, 1900**
66. *Hartemita coffeana* Long & van Achterberg, 2011
 Type: holotype, ♀ (IEBR).
 Long & van Achterberg, 2011: 19.
 Distribution: S Vietnam (Dak Lak).
67. *Hartemita daklaka* Long & van Achterberg, 2011
 Type: holotype, ♂ (IEBR).
 Long & van Achterberg, 2011: 22.
 Distribution: S Vietnam (Dak Lak).
68. *Hartemita khuatbaolinhae* Long & van Achterberg, 2011
 Type: holotype, ♀ (IEBR); paratypes, ♀♀ (IEBR, RMNH).
 Long & van Achterberg, 2011: 24.
 Distribution: NW Vietnam (Phu Tho), NC Vietnam (Ha Tinh).
69. *Hartemita maculata* Long & van Achterberg, 2011
 Type: holotype, ♀ (IEBR); paratypes, 5♂ (RMNH), 4♂ (IEBR), 3♀ (IEBR), 6♀ (RMNH).
 Long & van Achterberg, 2011: 26.
 Distribution: NE Vietnam (Ninh Binh, Thai Nguyen, Vinh Phuc), NW Vietnam (Phu Tho), NC Vietnam (Nghe An), C Vietnam (Thua Thien- Hue); China (Hunan).
70. *Hartemita nigrina* Long & van Achterberg, 2011
 Type: holotype, ♀ (IEBR).
 Long & van Achterberg, 2011: 225.
 Distribution: NW Vietnam (Hoa Binh).
71. *Hartemita similis* Long & van Achterberg, 2011
 Type: holotype, ♂ (IEBR); paratype ♂ (RMNH)
 Long & van Achterberg, 2011: 29.
 Distribution: S Vietnam (Dak Lak, Dong Nai).
72. *Hartemita singaporensis* (Mao, 1945)
 Type: (?), ♀ (USNM).
 Long & van Achterberg, 2011: 39.
 Distribution: C Vietnam (Thua Thien-Hue), S Vietnam (Dak Lak); Laos, Singapore, Malaysia.
73. *Hartemita tamdaona* Long & van Achterberg, 2011
 Type: holotype, ♀ (IEBR).
 Long & van Achterberg, 2011: 227.
 Distribution: NE Vietnam (Vinh Phuc).
74. *Hartemita vietnamica* Long & van Achterberg, 2011
 Type: holotype, ♀ (IEBR); paratype ♂ (RMNH).
 Long & van Achterberg, 2011: 31
 Distribution: NE Vietnam (Vinh Phuc), NC Vietnam (Nghe An).
- Subfamily DORYCTINAE Foerster, 1862**
75. *Doryctes malayensis* Fullaway, 1919
 Type: holotype, ♀ (*Ischiogonus malayensis* 192) (BPBM).
 Belokobylskij & Maetô, 2009: 114.
 Distribution: NW Vietnam (Hoa Binh); Japan; Indonesia; Malaysia.
76. *Eodendrus elongatus* Belokobylskij & Long, 2005
 Type: holotype, ♂ (ZISP); paratype, ♀ (ZISP).
 Belokobylskij, Chen & Long, 2005: 2728.
 Distribution: NW Vietnam (Hoa Binh), NC Vietnam (Ha Tinh).
77. *Eodendrus flavus* Belokobylskij & Long, 2005
 Type: holotype, ♀ (ZISP).
 Belokobylskij, Chen & Long, 2005: 2734
 Distribution: NE Vietnam (Vinh Phuc).
78. *Eodendrus hoabinicus* Belokobylskij & Long, 2005

- Type: holotype, ♀ (ZISP); paratypes, 2♀ (IEBR, BMNH).
 Belokobylskij, Chen & Long, 2005: 2737.
 Distribution: NW Vietnam (Hoa Binh); Brunei.
79. *Halyscaea sonata* Belokobylskij, 2002
 Type: holotype, ♂ (TMA).
 Belokobylskij, 2002: 73.
 Distribution: S Vietnam (Lam Dong).
80. *Hypodoryctes fuga* Belokobylskij & Chen, 2004
 Type: holotype, ♀ (ZISP); paratypes ♀♂ (BCIK, TMA, IZANU, IEHR (?), MIZW, NIAES, ZISP, ZJUH).
 Belokobylskij & Chen, 2004: 704;
 Belokobylskij & Maeto, 2009: 269.
 Distribution: Vietnam (Vinh Phuc); China; Japan.
81. *Hypodoryctes rondo* Belokobylskij & Chen, 2004 (Belokobylskij & Chen, 2004b: 704)
 Type: holotype, ♀ (ZISP).
 Belokobylskij & Maeto, 2009: 274.
 Distribution: NE Vietnam (Vinh Phuc); China.
82. *Hypodoryctes seranada* Belokobylskij & Chen, 2004
 Type: holotype, ♀ (ZISP); paratypes, ♀♂ (TMA, ZISP, ZJUH).
 Belokobylskij & Maeto, 2009: 260.
 Distribution: NE Vietnam (Vinh Phuc), S Vietnam (Kon Tum); China.
83. *Hypodoryctes sibiricus* Kokujev, 1900
 Type: holotype, ♀ (ZISP).
 Belokobylskij & Maetô, 2009: 277.
 Distribution: Vietnam (?); Belarus; Bulgaria; China; Costa Rica; Croatia; Georgia; Hungary; Japan; Kazakhstan; Korea; Mexico; Myanmar; Poland; Russia; Sweden.
84. *Hypodoryctes torridus* Papp, 1987
 Type: holotype, ♀ (TMA).
 Belokobylskij & Maeto, 2009: 280.
 Distribution: Vietnam (?); China; Japan; Korea; Russia (Far East).
85. *Hypodoryctes symphonia* Belokobylskij, 2004
 Type: holotype, ♀ (ZISP); paratypes, 2♀ (IEBR, BMNH).
 Belokobylskij & Maeto, 2009: 260.
 Distribution: Vietnam (?).
86. *Neoheterospilus subtropicalis* Belokobylskij, 2006
 Type: paratype, ♀ (ZISP).
 Belokobylskij, 2006: 173; Belokobylskij & Maeto, 2009: 316
 Distribution: Vietnam (?); China; Japan.
87. *Neurocrassus palliarus* (Cameron, 1881)
 Type: holotype, ♀ (*Monolexis palliatus* Cameron) (BMNH); holotype ♀ (*Doryctes nixonii* Watanabe) (EIHU).
 Belokobylskij & Maeto, 2009: 341
 Distribution: Vietnam (?); Japan.
88. *Spathius alahamatus* Long & Belokobylskij, 2011
 Type: holotype, ♀ (IEBR); paratype, ♀ (IEBR).
 Long & Belokobylskij, 2011: 2.
 Distribution: NE Vietnam (Ha Giang).
89. *Spathius maichauensis* Belokobylskij & Long, 2011
 Type: holotype, ♀ (ZISP).
 Long & Belokobylskij, 2011: 5.
 Distribution: NW Vietnam (Hoa Binh).
90. *Spathius pacoensis* Belokobylskij & Long, 2011
 Type: holotype, ♀ (ZISP).
 Long & Belokobylskij, 2011: 9.
 Distribution: NW Vietnam (Hoa Binh).
91. *Spathius sterlingi* Long & Belokobylskij, 2011
 Type: holotype, ♀ (IEBR).
 Long & Belokobylskij, 2011: 12.
 Distribution: C Vietnam (Quang Nam).
92. *Spathius subanervus* Long & Belokobylskij, 2011
 Type: holotype, ♀ (IEBR).
 Long & Belokobylskij, 2011: 15.
 Distribution: N Vietnam (Hanoi).
93. *Spathius tramlapus* Belokobylskij & Long, 2011
 Type: holotype, ♀ (ZISP); paratype, ♀ (ZISP).

- Long & Belokobylskij, 2011: 18.
Distribution: S Vietnam (Kon Tum).
94. *Spathiostenus formosanus* (Watanabe, 1934)
Type: holotype, ♀ (SDEI).
Belokobylskij & Maeto, 2009: 487.
Distribution: Vietnam (?); China; India;
Japan.
- Subfamily EUPHORINAE Foerster, 1862**
- 95*. *Strebrocera (E.) opima* Chou, 1990
Type: “?”, ♀ (TARI)
Distribution: NC Vietnam (Ha Tinh)
- 96*. *Cosmophorus adebratti* van Achterberg, 2000
Type: holotype, ♀ (SWDZI)
Distribution: NW Vietnam (Hoa Binh);
Malaysia.
- Subfamily HOMOLOBINAE van Achterberg, 1979**
97. *Homolobus elabagalus* (Nixon, 1938)
Type: holotype, ♀ (BMNH).
Khuat Dang Long, 2008: 33.
Hosts: *Spodoptera litura* on beans, peanut.
Distribution: Vietnam (Nghe An).
98. *Homolobus truncatoides* van Achterberg, 1979
Type: holotype, ♀ (ZMHU).
Khuat Dang Long, 2008: 33.
Hosts: *Spodoptera litura* on beans, peanut.
Distribution: NC Vietnam (Nghe An).
- Subfamily MICROGASTRINAE Foerster, 1862**
99. *Alloplitis albiventris* Long & van Achterberg, 2008
Type: holotype, ♀ (IEBR).
Long & van Achterberg, 2008: 79.
Distribution: NW Vietnam (Hoa Binh).
- 100*. *Alloplitis guapo* Nixon, 1965
Type: (?), ♀ (USNM).
Distribution: NE Vietnam (Ninh Binh);
Philippines.
101. *Alloplitis laevigaster* Long & van Achterberg, 2008
Type: holotype, ♂ (IEBR).
- Long & van Achterberg, 2008: 80.
Distribution: NW Vietnam (Hoa Binh).
102. *Alloplitis vietnamicus* Long & van Achterberg, 2008
Type: holotype, ♀ (IEBR); paratypes, 2♀ (IEBR, RMNH).
Long & van Achterberg, 2008: 81.
Distribution: NE Vietnam (Ha Giang, Vinh Phuc).
103. *Apanteles allofulvigaster* Long, 2007
Type: holotype, ♀ (VNMN).
Khuat Dang Long, 2007: 35.
Distribution: N Vietnam (Hanoi).
- 104*. *Apanteles assis* Nixon, 1965
Type: ♀, (USNM).
Distribution: NE Vietnam (Hanoi, Vinh Phuc); Philippines.
- 105*. *Apanteles bambusae* Wilkinson, 1928
Type: (?), ♀ (BMNH).
Distribution: NE Vietnam (Vinh Phuc);
India.
- 106*. *Apanteles dores* Nixon, 1965
Type: (?), ♀ (USNM).
Distribution: NW Vietnam (Hoa Binh);
Malaysia.
107. *Apanteles gialamensis* Long, 2007
Type: holotype, ♀ (IEBR); paratypes, 4♀ 2♂ (IEBR)
Khuat Dang Long, 2007: 25.
Distribution: N Vietnam (Hanoi).
- 108*. *Apanteles isander* Nixon, 1965
Type: (?), ♀ (BMNH).
Distribution: NW Vietnam (Hoa Binh);
South Africa.
- 109*. *Apanteles gentilis* Nixon, 1967
Type: (?), ♀ (BMNH).
Distribution: NW Vietnam (Hoa Binh);
Papua New Guinea.
- 110*. *Apanteles hymeniae* Wilkinson, 1935
Type: (?), ♀ (BMNH).
Distribution: N Vietnam (Hanoi); Fiji.
111. *Apanteles mycerinus* Nixon, 1965
Type: (?), ♀ (BMNH),
Distribution: Vietnam (Hanoi); South Africa.

- 112*. *Apanteles phycodis* Viereck, 1913
 Type: (?), ♀ (USNM).
 Distribution: NW Vietnam (Hoa Binh); India.
- 113*. *Apanteles sosis* Nixon, 1965
 Type: (?), ♀ (BMNH).
 Distribution: Vietnam (Vinh Phuc); South Africa.
114. *Apanteles subcamilla* Long, 2007
 Type: holotype, ♀ (IEBR); paratypes, 5♀ (IEBR).
 Khuat Dang Long, 2007: 27.
 Distribution: NE Vietnam (Vinh Phuc, Hanoi).
- 115*. *Apanteles taragamae* Viereck, 1912
 Type: (?), ♀ (USNM).
 Hosts: leaffolder *Diaphania indica* (Pyralidae) on luffa, cucumber.
 Distribution: N Vietnam (Hanoi), S Vietnam (Ho Chi Minh city); China; India; Indonesia; Japan; Korea; Papua New Guinea; Sri Lanka; Thailand.
116. *Cotesia cethrogynae* Long, 2014
 Type: holotype, ♀ (VNMN); paratypes, 17♀ (IEBR, RMNH, VNMN), 6♂ (IEBR, RMNH).
 Long & Dzung, 2014: 84.
 Hosts: *Clethrogyna turbata* Butler (Lymantriinae) on beans, peas and peanut.
 Distribution: NW Vietnam (Hoa Binh), N Vietnam (Hanoi).
117. *Cotesia vestalis* (Haliday, 1834) [*Cotesia plutellae* (Kurdjumov, 1912) in Long & Belokobylskij, 2003: 394]
 Type: lectotype, ♀ (NMI).
 Distribution: N Vietnam (Hanoi), S Vietnam (Lam Dong); Australasian; Eastern Palearctic; Ethiopian; Europe; Oceanic; Oriental; Western Palearctic.
- 118*. *Diolcogaster bifurcifossa* Zheng & Chen, 2011
 Type: holotype, ♀ (ZJUH); 11♀, 5♂ (ZJUH).
 Distribution: NE Vietnam (Cao Bang, Ninh Binh), NE Vietnam (Hoa Binh), NC Vietnam (Ha Tinh); China.
- 119*. *Diolcogaster chaoi* (Low & You, 2004)
 Type: holotype, ♀ (?) Huishui, Guizhou, 1100M, 2001-X-24, legs. Luo Qinghuai” in Guizhou Normal University, Guiyang, China.
 Distribution: NE Vietnam (Bac Kan, Ha Giang, Hanoi, Vinh Phuc), NW Vietnam (Hoa Binh, Ninh Binh, Phu Tho), NC Vietnam (Ha Tinh, Quang Binh), C Vietnam (Quang Tri), S Vietnam (Dong Nai); China.
- 120*. *Diolcogaster garammata* Zheng & Chen, 2011
 Type: holotype, ♀ (ZJUH); paratype, 1♀ (ZJUH).
 Distribution: NE Vietnam (Ha Giang, Thai Nguyen), NW Vietnam (Hoa Binh); China.
- 121*. *Diolcogaster ineminens* Zheng & Chen, 2011
 Type: holotype, ♀ (ZJUH); paratypes, (ZJUH).
 Distribution: NE Vietnam (Thai Nguyen), NW Vietnam (Lao Cai, Hoa Binh); China.
- 122*. *Diolcogaster laetimedia* Zheng & Chen, 2011
 Type: holotype, ♀ (ZJUH); paratypes, 11♀ (ZJUH).
 Distribution: NE Vietnam Vietnam (Ha Giang, Hanoi, Ha Nam, Ninh Binh, Thai Nguyen, Vinh Phuc), NW Vietnam (Hoa Binh), C Vietnam (Thua Thien-Hue, Da Nang, Quang Nam); China.
- 123*. *Diolcogaster plurimitida* Zheng & Chen, 2011
 Type: holotype, ♀ (ZJUH); paratypes, 3♀ (ZJUH).
 Distribution: NW Vietnam (Phu Tho); China.
- 124*. *Diolcogaster translucida* Zheng & Chen, 2011
 Type: holotype, (“?”) (ZJUH).
 Distribution: NW Vietnam (Hoa Binh); China.
125. *Fornicia achterbergi* Long, 2007
 Type: holotype, ♀ (VNMN).
 Khuat Dang Long, 2007: 37.
 Distribution: Vietnam (Hanoi).

126. *Microplitis abrs* Austin & Dangerfield, 1993
 Type: “?”, ♀ (ANIC).
 Khuat Dang Long, 2007: 142.
 Hosts: *Spodoptera litura* on beans and peas, peanut.
 Distribution: NE Vietnam (Ha Nam, Hanoi, Ninh Binh), NW Vietnam (Hoa Binh), NC Vietnam (Thua Thien-Hue); Australia.
127. *Microplitis aprilae* Austin & Dangerfield, 1993
 Type: “?”, ♀ (ANIC).
 Khuat Dang Long, 2007: 143.
 Hosts: *Spodoptera litura* on soybean
 Distribution: NE Vietnam (Bac Ninh); Australia.
128. *Microplitis demolitor* Wilkinson, 1934
 Type: “?”, ♀ (BMNH).
 Khuat Dang Long, 2007: 144.
 Hosts: *Spodoptera litura* on beans.
 Distribution: NE Vietnam (Hanoi, Ninh Binh), NW Vietnam (Hoa Binh), S Vietnam (Dak Lak); Australia.
129. *Microplitis gidjus* Austin & Dangerfield, 1993
 Type: “?”, ♀ (AEI).
 Khuat Dang Long, 2007: 145.
 Hosts: *Spodoptera litura* on soybean.
 Distribution: NE Vietnam (Hanoi, Ninh Binh); Australia.
130. *Microplitis manilae* Ashmead, 1904
 Type: “?”, ♀ (USNM).
 Khuat Dang Long, 2007: 146.
 Hosts: *Spodoptera litura*, *Helicoverpa armigera* on maize, peanut, beans and peas.
 Distribution: NE Vietnam (Bac Ninh, Hanoi), NW Vietnam (Hoa Binh), S Vietnam (Lam Dong); China; India; Thailand; Philippines; New Ghinea; Australia.
131. *Miropotes orientalis* Fernández-Triana & van Achterberg, 2014
 Type: holotype, ♀ (RMNH); paratypes, 1♀ (CNC), 3♂ (RMNH).
 Fernández-Triana & van Achterberg, 2014: 67.
 Distribution: C Vietnam (Ninh Thuan); Thailand.
132. *Protapanteles (Nyereria) albicentrus* Long & van Achterberg, 2008
 Type: holotype, ♀ (IEBR); paratypes, ♀ (IEBR), ♂ (RMNH).
 Long & van Achterberg, 2008: 82.
 Distribution: NC Vietnam (Ha Tinh).
133. *Protapanteles (Nyereria) yenthuyensis* Long & van Achterberg, 2008
 Type: holotype, ♀ (IEBR).
 Long & van Achterberg, 2008: 83
 Distribution: NW Vietnam (Hoa Binh).
134. *Snellenius maculipennis* (Szépligeti, 1900)
 Type: (?), ♀ (TMA).
 Long & van Achterberg, 2013: 276.
 Distribution: Vietnam (Hanoi); India; Thailand; Australia.
135. *Snellenius nigellus* Long & van Achterberg, 2013
 Type: holotype, ♂ (VNMN).
 Long & van Achterberg, 2013: 274.
 Distribution: NW Vietnam (Hoa Binh).
136. *Snellenius similis* Long & van Achterberg, 2013
 Type: holotype, ♀ (VNMN); paratypes, 2♀, 1♂ (VNMN)
 Long & van Achterberg, 2013: 275
 Distribution: Vietnam (Vinh Phuc, Hanoi).
137. *Wilkinsonellus flavicrus* Long & van Achterberg, 2011
 Type: holotype, ♀ (IEBR).
 Long & van Achterberg, 2011: 125.
 Distribution: NE Vietnam (Hanoi).
138. *Wilkinsonellus masoni* Long & van Achterberg, 2011
 Type: holotype, ♀ (IEBR).
 Long & van Achterberg, 2003: 127.
 Distribution: NE Vietnam (Thai Nguyen).
139. *Wilkinsonellus nigratus* Long & van Achterberg, 2011
 Type: holotype, ♂ (IEBR); paratype, ♂ (RMNH).
 Long & van Achterberg, 2011: 129.

Distribution: NE Vietnam (Ha Giang), S Vietnam (Lam Dong).

140. *Wilkinsonellus nigrocentrus* Long & van Achterberg, 2011

Type: holotype, ♀ (IEBR)

Long & van Achterberg, 2011: 130

Distribution: S Vietnam (Kon Tum).

141. *Wilkinsonellus tobiasi* Long, 2007

Type: holotype, ♀ (IEBR); paratypes, 1♀+2♂ (IEBR).

Khuat Dang Long, 2007: 38.

Distribution: NE Vietnam (Thai Nguyen), NC Vietnam (Thua Thien-Hue).

Subfamily OPIINAE Ashmead, 1900

142. *Opius (Phaedrotoma) phaseoli* Fischer, 1963

Type: (?), ♀ ().

Khuat Dang Long, 2010: 181.

Hosts: *Ophiomyia phaseoli* (Agromyzidae) on beans.

Distribution: N Vietnam (Hanoi); China; Ethiopia, Hawaii, India; Indonesia; Kenya; Philippines; Uganda.

143. *Opius (Opiothorax) chromatomyiae* Belokobylskij & Wharton, 2004

Type: holotype, ♀ (ANIC), paratypes, 21♀, 9♂ (ANIC, ZISP, TAMU).

Belokobylskij & Wharton, 2004: 142.

Hosts: *Liriomyza huidobrensis* (?) (Agromyzidae) on peas, potato.

Distribution: N Vietnam (Hanoi); Indonesia; Malaysia.

Subfamily ORGILINAE Ashmead, 1900

144*. *Stantonia angustata* van Achterberg, 1987

Type: holotype, ♀ (RMNH).

Distribution: NW Vietnam (Ninh Binh); Brunei, Malaysia.

145*. *Stantonia annulicornis* Enderlein, 1921

Type: holotype, ♀ (“?”).

Distribution: NW Vietnam (Hoa Binh, Phu Tho), C Vietnam (Thua Thien-Hue); Myanmar.

146*. *Stantonia chaoi* Chen, He & Ma, 2004

Type: holotype, ♀ (ZJUH).

Distribution: NW Vietnam (Hoa Binh), C Vietnam (Quang Nam); China.

147*. *Stantonia ruficornis* Enderlein, 1921

Type: holotype, ♂ (“?”).

Distribution: NW Vietnam (Lai Chau, Hoa Binh); China, Malaysia, Nepal, Philippines.

148*. *Stantonia spasskensis* Belokobylskij, 1993

Type: holotype, ♂ (ZISP).

Distribution: NW Vietnam (Phu Tho), C Vietnam (Thua Thien-Hue); Russia (Primor'ye Kray).

149*. *Stantonia xianggianensis* Chen, He & Ma, 2004

Type: holotype, ♀ (ZJUH).

Distribution: NC Vietnam (Ha Tinh); China.

Subfamily ROGADINAE Foerster, 1862

150. *Aleiodes (Aleiodes) abditivus* (Long & van Achterberg, 2008)

Type: holotype, ♀ (IEBR)

Long & van Achterberg, 2008: 316

Distribution: S Vietnam (Tay Ninh).

151*. *Aleiodes (Aleiodes) aciculodeum* Quicke & Butcher, 2012

Type: holotype, ♂ (QSBG)

Distribution: NW Vietnam (Lao Cai); Thailand.

152*. *Aleiodes (Aleiodes) agagg* Quicke & Butcher, 2012

Type: holotype, ♀ (QSBG); paratype, ♀ (QSBG)

Distribution: NE Vietnam (Phu Tho, Vinh Phuc); Thailand.

153*. *Aleiodes (Aleiodes) albigenus* Chen & He, 1997

Type: (?).

Distribution: NE Vietnam (Ha Giang, Thai Nguyen), NW (Hoa Binh); Thailand.

154*. *Aleiodes (Aleiodes) areelucki* Quicke & Butcher, 2012

Type: holotype, ♀ (QSBG).

Distribution: NE Vietnam (Ha Giang, Thai Nguyen, Vinh Phuc), NW (Lao Cai, Hoa Binh); Thailand.

155*. *Aleiodes (Aleiodes) ascrobi* Quicke & Butcher, 2012

Type: holotype, ♀ (QSBG); paratypes, 1♀ (QSBG), 1♂ (BMNH).

Distribution: NW Vietnam (Hoa Binh); Thailand.

156. *Aleiodes (Aleiodes) bachma* (Long, 2008)

Type: holotype, ♀ (IEBR); paratype, ♀ (RMNH).

Long & van Achterberg, 2008: 314.

Distribution: C Vietnam (Thua Thien-Hue); Thailand.

157*. *Aleiodes (Aleiodes) bachmaduplus* Quicke & Butcher, 2012

Type: holotype, ♀ (IEBR); paratype, ♀ (BMNH).

Distribution: NE Vietnam (Ha Giang, Hanoi), NW Vietnam (Hoa Binh), C Vietnam (Thua Thien-Hue); Thailand.

158*. *Aleiodes (Aleiodes) buzurae* He & Chen, 1990

Type: holotype, ♀ (ZJUH).

Distribution: NW Vietnam (Lai Chau); China; Thailand.

159*. *Aleiodes (Aleiodes) buzuriquadruplus* Quicke & Butcher, 2012

Type: holotype, ♀ (QSBG)

Distribution: NE Vietnam (Ninh Binh), C Vietnam (Thua Thien-Hue); Thailand.

160*. *Aleiodes (Aleiodes) caprinus* Quicke & Butcher, 2012

Type: holotype, ♀ (QSBG).

Distribution: NE Vietnam (Ha Giang, Ninh Binh, Thai Nguyen), NW Vietnam (Hoa Binh), S Vietnam (Tay Ninh); Thailand.

161*. *Aleiodes (Aleiodes) chamba* Quicke & Butcher, 2012

Type: holotype, ♀ (QSBG).

Distribution: NE Vietnam (Ha Giang); Thailand.

162*. *Aleiodes (Aleiodes) centralis* Quicke & Butcher, 2012

Type: holotype, ♀ (BMNH).

Distribution: NW Vietnam (Lai Chau, Hoa Binh); Thailand.

163*. *Aleiodes (Aleiodes) crassinervis* Chen & He, 1997

Type: holotype, ♀ (ZJUH); paratype, ♀ (ZJUH).

Distribution: C Vietnam (Quang Tri); Thailand.

164*. *Aleiodes (Aleiodes) earias* Chen & He, 1997

Type: holotype, ♀ (ZJUH); paratypes, ♀♀ (ZJUH), 1♀ (RMNH).

Distribution: N Vietnam (Hai Phong); Thailand.

165*. *Aleiodes (Aleiodes) etvalinus* Quicke & Butcher, 2012

Type: holotype, ♀ (QSBG).

Distribution: NW Vietnam (Hoa Binh); Thailand.

166*. *Aleiodes (Heterogamus) excavatus* (Telenga, 1941)

Type: (?).

Distribution: NW Vietnam (Hoa Binh), NE Vietnam (Ninh Binh); Belgium; Bulgaria; China; Croatia; Czech Republic; France; Georgia; Hungary; Ireland; Italy; Kazakhstan; Netherlands; Romania; Russia; Slovakia; Switzerland; United Kingdom; Yugoslavia.

167*. *Aleiodes (Aleiodes) flavostriatus* Quicke & Butcher, 2012

Type: holotype, ♀ (QSBG), paratypes ♀+♂ (BMNH), ♀ (QSBG).

Distribution: NE Vietnam (Ha Nam), NC Vietnam (Ha Tinh); Thailand.

168*. *Aleiodes (Aleiodes) gastritor* (Thunberg, 1822)

Type: lectotype, ♀ (ZMU).

Distribution: NE Vietnam (Hanoi, Ninh Binh), NW Vietnam (Lao Cai, Son La); Eastern Palearctic; Europe; Nearctic; Oceanic; Oriental; Western Palearctic.

169*. *Aleiodes (Aleiodes) glabribasalis* Quicke & Butcher, 2012

Type: holotype, ♀ (QSBG).

Distribution: NE Vietnam (Ha Giang), NW Vietnam (Hoa Binh); Thailand.

170*. *Aleiodes (Aleiodes) glutinum* Quicke & Butcher, 2012

- Type: holotype, ♂ (QSBG).
 Distribution: NW Vietnam (Hoa Binh); Thailand.
- 171*. *Aleiodes (Aleiodes) naevius* Chen et He, 1997
 Type: holotype, ♀ (ZJUH); paratypes, ♀♂ (ZJUH), 1♀ (BAU).
 Distribution: NE Vietnam (Vinh Phuc); China.
- 172*. *Aleiodes (Aleiodes) paulmarshi* Quicke & Butcher, 2012
 Type: holotype, ♀ (QSBG).
 Distribution: NW Vietnam (Lao Cai); Thailand.
- 173*. *Aleiodes (Aleiodes) postmaculus* Quicke & Butcher, 2012
 Type: holotype, ♀ (QSBG).
 Distribution: NW Vietnam (Lao Cai); Thailand.
- 174*. *Aleiodes (Aleiodes) rincewindi* Quicke & Butcher, 2012
 Type: holotype, ♀ (QSBG).
 Distribution: NE Vietnam (Ninh Binh); Thailand.
- 175*. *Aleiodes (Aleiodes) seriatus* (Herrich-Schaffer, 1838)
 Type: (?).
 Distribution: NW Vietnam (Hoa Binh), NE Vietnam (Ha Giang, Vinh Phuc, Ninh Binh), NC Vietnam (Ha Tinh), C Vietnam (Thua Thien-Hue), S Vietnam (Tay Ninh); Armenia; Austria; Azerbaijan; Belgium; Bulgaria; China; Croatia; Czechoslovakia; Finland; France; Georgia; Germany; Greece; Hungary; Ireland; Italy; Japan; Kazakhstan; Korea; Mongolia; Netherlands; Poland; Russia; Slovenia; Spain; Sweden; Switzerland; Tunisia; United Kingdom; Yugoslavia.
- 176*. *Aleiodes (Aleiodes) sesquipunctatus* Quicke & Butcher, 2012
 Type: holotype, ♂ (QSBG).
 Distribution: NE Vietnam (Ha Giang, Phu Tho, Thai Nguyen, Ninh Binh), NW Vietnam (Hoa Binh), C Vietnam (Thua Thien-Hue); Thailand.
- 177*. *Aleiodes (Aleiodes) stohelit* Quicke & Butcher, 2012
 Type: holotype, ♀ (QSBG).
 Distribution: NE Vietnam (Ha Giang, Ninh Binh), NW Vietnam (Hoa Binh); Thailand.
- 178*. *Aleiodes (Aleiodes) transvena* Quicke & Butcher, 2012
 Type: holotype, ♀ (QSBG).
 Distribution: NE Vietnam (Ha Giang), NW Vietnam (Hoa Binh); Thailand.
- 179*. *Aleiodes (Heterogamus) takasuae* van Achterberg, 1985
 Type: holotype, ♀ (RMNH).
 Distribution: NE Vietnam (Ha Giang); China, Far East Russia, Japan.
- 180*. *Aleiodes (Aleiodes) yalaesis* Quicke & Butcher, 2012
 Type: holotype, ♀ (BMNH).
 Distribution: Vietnam (Quang Nam); Thailand.
- 181*. *Aleiodes (Arcaleiodes) nitidus* Chen & He, 1991
 Type: holotype, ♀ (ZJUH).
 Distribution: NE Vietnam (Phu Tho), NW Vietnam (Hoa Binh); China.
- 182*. *Aleiodes (Chelonorhogas) coronarius* Chen & He, 1991
 Type: holotype, ♀ (ZJUH).
 Distribution: NE Vietnam (Ha Giang), NW Vietnam (Lai Chau), NC Vietnam (Ha Tinh); China.
- 183*. *Aleiodes (Heterogamus) dispar* (Haliday, 1833)
 Type: lectotype, ♀ (NMI).
 Distribution: NW Vietnam (Hoa Binh); Eastern Palaearctic; Europe; Oriental; Western Palaearctic.
- 184*. *Batotheca nigriceps* (Cameron, 1897)
 Type: (?), ♀ (UMO).
 Distribution: NW Vietnam (Phu Tho), NE Vietnam (Thai Nguyen); Sri Lanka.
- 185*. *Aleiodes (Heterogamus) excavatus* (Telenga, 1941)
 Type: (?).
 Distribution: NW Vietnam (Hoa Binh), NE

- Vietnam (Ninh Binh); Belgium; Bulgaria; China; Croatia; Czech Republic; France; Georgia; Hungary; Ireland; Italy; Kazakhstan; Netherlands; Romania; Russia; Slovakia; Switzerland; United Kingdom; Yugoslavia.
- 186*. *Batotheca nigriceps* (Cameron, 1897)
Type: (?), ♀ (UMO).
Distribution: NW Vietnam (Phu Tho), NE Vietnam (Thai Nguyen); Sri Lanka.
- 187*. *Canalirogas spilonotus* (Cameron, 1905)
Type: lectotype, (?) (BMNH).
Distribution: NE Vietnam (Ha Giang, Ninh Binh, Phu Tho, Vinh Phuc), NW Vietnam (Hoa Binh), NC Vietnam (Ha Tinh), S Vietnam (Dong Nai); China; India; Indonesia; Malaysia; Myanmar; Nepal.
188. *Conspinarina huongsonensis* Long & van Achterberg, 2008
Type: holotype, ♀ (IEBR); paratypes, 2♀ (IEBR, RMNH).
Long & van Achterberg, 2008: 304.
Distribution: NC Vietnam (Ha Tinh).
189. *Conspinarina nigroapicalis* Long & van Achterberg, 2008
Type: holotype, ♀ (IEBR).
Long & van Achterberg, 2008: 306.
Distribution: NE Vietnam (Ninh Binh).
190. *Conspinarina pumatica* Long & van Achterberg, 2008
Type: holotype, ♀ (IEBR).
Long & van Achterberg, 2008: 308.
Distribution: NC Vietnam (Nghe An).
191. *Conspinarina similis* Long & van Achterberg, 2008
Type: holotype, ♀ (IEBR).
Long & van Achterberg, 2008: 310.
Distribution: NE Vietnam (Thai Nguyen).
192. *Cornutorogas aurantius* van Achterberg, 2008
Type: holotype, ♀ (RMNH); paratypes, ♂ (IEBR)
Long & van Achterberg, 2008: 318
Distribution: S Vietnam (Dak Lak, Dong Nai).
193. *Cornutorogas hatinhensis* Long & van Achterberg, 2008
Type: holotype, ♂ (IEBR); paratype, ♂ (RMNH).
Long & van Achterberg, 2008: 319.
Distribution: NC Vietnam (Ha Tinh), S Vietnam (Dak Lak).
194. *Cornutorogas hoabinhicus* Long & van Achterberg, 2008
Type: holotype, ♀ (IEBR).
Long & van Achterberg, 2008: 321.
Distribution: NW Vietnam (Hoa Binh).
195. *Cornutorogas orientalis* Chen & Belokbylskij, 2004
Type: holotype, ♀ (ZJUH).
Long & van Achterberg, 2008: 324.
Distribution: NE Vietnam (Ha Giang), NW Vietnam (Hoa Binh), NC Vietnam (Ha Tinh); China.
196. *Cornutorogas similis* Long, 2008
Type: holotype, ♀ (IEBR); paratype, ♂ (RMNH).
Long & van Achterberg, 2008: 322.
Distribution: C Vietnam (Thua Thien-Hue).
197. *Iporhogas albilateralis* Long, 2014,
Type: holotype, ♀ (VNMN); paratypes, 2♀ (VNMN, RMNH).
Khuat Dang Long, 2014: 82.
Distribution: NE Vietnam (Vinh Phuc), NW Vietnam (Hoa Binh), S Vietnam (Kien Giang).
198. *Iporhogas contrastus* Long, 2014
Type: holotype, ♀ (VNMN); paratypes, 2♀ (VNMN, RMNH)
Khuat Dang Long, 2014: 86.
Distribution: NW Vietnam (Hoa Binh, Lai Chau), NC Vietnam (Ha Tinh).
199. *Iporhogas guangxiensis* Chen & He, 1997
Type: holotype, ♀ (ZJUH).
Khuat Dang Long, 2014: 94.
Distribution: NE Vietnam (Ha Giang), NW Vietnam (Hoa Binh); China.
200. *Iporhogas simulatus* Long, 2014
Type: holotype, ♀ (VNMN).
Khuat Dang Long, 2014: 88.

- Distribution: C Vietnam (Thua Thien-Hue).
201. *Iporhogas tricoloratus* Long, 2014
 Type: holotype, ♀ (VNMN); paratypes, 10♂ (VNMN, VMNH).
 Khuat Dang Long, 2014: 90.
 Distribution: NE Vietnam (Ha Giang, Vinh Phuc), NW Vietnam (Hoa Binh, Phu Tho, Son La), NC Vietnam (Quang Binh).
202. *Megarhogas albapiculatus* Long, 2008
 Type: holotype, ♀ (IEBR).
 Long & van Achterberg, 2008: 325.
 Distribution: C Vietnam (Thua Thien-Hue).
- 203*. *Megarhogas perinae* Watanabe, 1932
 Type: (“?”), (EIHU).
 Distribution: NE Vietnam (Vinh Phuc), NC Vietnam (Ha Tinh), C Vietnam (Quang Tri, Thua Thien-Hue); China (Taiwan); Japan.
204. *Spinaria albiventris* Cameron, 1899
 Type: lectotype, ♀ (UMO).
 Long & van Achterberg, 2007: 162.
 Distribution: NW Vietnam (Hoa Binh, Phu Tho), NC Vietnam (Ha Tinh, Nghe An), S Vietnam (Kon Tum); China; India; Laos.
205. *Spinaria bachmana* Long & van Achterberg, 2007
 Type: holotype, ♀ (IEBR).
 Long & van Achterberg, 2007: 164.
 Distribution: Vietnam (Thua Thien-Hue).
206. *Spinaria fulvicornis* Long & van Achterberg, 2007
 Type: holotype, ♀ (IEBR).
 Long & van Achterberg, 2007: 164.
 Distribution: NW Vietnam (Hoa Binh).
207. *Spinaria similis* Long & van Achterberg, 2007
 Type: holotype, ♀ (IEBR).
 Long & van Achterberg, 2007: 167.
 Distribution: C Vietnam (Thua Thien-Hue).
208. *Spinaria spinator* (Guérin-Ménéville, 1830)
 Type: (“?”).
 Long & van Achterberg, 2007: 169
 Distribution: NW Vietnam (Hoa Binh, Phu Tho); Bhutan; China; India; Indonesia; Japan; Malaysia; Nepal; Thailand.
209. *Spinaria truongsoneensis* Long & van Achterberg, 2007
 Type: holotype ♀ (IEBR); paratype ♀ (RMNH).
 Long & van Achterberg, 2007: 169.
 Distribution: NC Vietnam (Ha Tinh, Nghe An).
210. *Spinaria vietnamica* Long & van Achterberg, 2007
 Type: holotype, ♀ (IEBR); paratypes, 15 ♀ (IEBR, RMNH).
 Long & van Achterberg, 2007: 171.
 Distribution: NE Vietnam (Ninh Binh, Vinh Phuc), NW Vietnam (Hoa Binh, Phu Tho), NC Vietnam (Ha Tinh, Nghe An).

DISCUSSION

In this paper 210 species of ten subfamilies of the Braconidae are listed, and together with the 282 species reported in the two previous lists mentioned above, 492 species are known from Vietnam. Of the total 210 species reported, there are 62 species newly recorded for the Braconidae fauna of Vietnam, that is 12.6% of the 492 braconid species belonging to 24 subfamilies recorded so far. Three genera *Aleiodes* Wesmael (Rogadinae), *Apanteles* Foerster (Microgastrinae) and *Therophilus* Wesmael (Agathidinae) are revealed as the most diverse genera with 34, 13 and 21 species recorded, respectively. The information indicates the status of the study of braconid fauna of Vietnam and of 18 braconid species as parasitoids for the biological control of agricultural insect pests.

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DANH SÁCH BỔ SUNG VÀ NHỮNG GHI NHẬN MỚI CÁC LOÀI ONG KÝ SINH THUỘC HỌ Braconidae (Hymenoptera: Ichneumonoidea) Ở VIỆT NAM

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TÓM TẮT

Họ ong ký sinh Braconidae là một trong 2 họ thuộc tổng họ Ichneumonoidea, họ ong ký sinh này rất đa dạng, nhiều loài trong số chúng là những loài ký sinh quan trọng có thể được sử dụng trong việc hạn chế số lượng các loài côn trùng gây hại cho cây trồng nông nghiệp ở Việt Nam. Bài báo này đưa ra danh sách bổ sung 210 loài ong ký sinh của 52 giống và 9 phân họ thuộc họ Braconidae ở Việt Nam, trong số đó ghi nhận mới 62 loài cho khu hệ của Việt Nam. Có ba giống *Aleiodes* Wesmael (phân họ Rogadinae), *Apanteles* Foerster (phân họ Microgastrinae) và *Therophilus* Wesmael (phân họ Agathidinae) đa dạng nhất, tương ứng với 34, 13 và 21 species được ghi nhận và 18 loài ong ký sinh thuộc họ này có vai trò quan trọng trong việc hạn chế số lượng một số loài sâu hại trên các cây trồng nông nghiệp. Như vậy, cho đến nay đã ghi nhận được tổng số 492 loài của 24 phân họ thuộc khu hệ ong ký sinh họ Braconidae ở Việt Nam.

Đây là danh sách bổ sung các loài thuộc họ Braconidae với những thông tin về nơi đặt mẫu chuẩn của loài, tài liệu đầu tiên ghi nhận loài này ở Việt Nam, loài vật chủ có liên quan với ong ký sinh và phân bố của chúng ở Việt Nam và trên thế giới.

Từ khóa: Ichneumonoidea, Braconidae, biện pháp sinh học, đa dạng, ghi nhận mới, ong ký sinh.

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