



# *Fauna of India Checklist*

## A CHECKLIST OF AMPULICIDAE (INSECTA: HYMENOPTERA: APOIDEA) OF INDIA

S. Anagha and P. Girish Kumar

(Updated: June 2020)



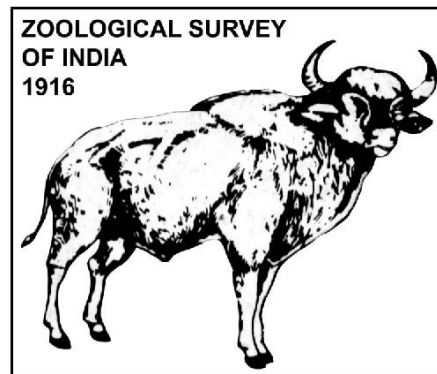
*Trirogma caerulea*

Zoological Survey of India

Prani Vigyan Bhawan, M-Block, New Alipore, Kolkata- 700 053

**Citation:** Anagha, S. and Girish Kumar, P. (2020). A Checklist of Ampulicidae (Insecta: Hymenoptera: Apoidea) of India. Version 1.0. Online publication is available at [www.zsi.gov.in](http://www.zsi.gov.in) Updated till June 2020. (Online only)

**Cover Photo:** Male of *Trirogma caerulea* Westwood, 1841.



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# A Checklist of Ampulicidae (Insecta: Hymenoptera: Apoidea) of India

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**(Last update: June 2020)**

## INTRODUCTION

The Ampulicidae (commonly known as cockroach wasps) are small, mainly a tropical family of sphecoid wasps of superfamily Apoidea in the order Hymenoptera. There are about 203 species under 6 genera worldwide in single subfamily Ampulicinae (Anagha and Girish Kumar, 2019; Pulawski, 2020). Three genera of this family reported in India are *Ampulex*, *Dolichurus*, and *Trirogma*. Adults of these parasitoid wasps generally have elongate body with long and slender appendages, variable gaster, if petiolate and petiole composed of sternum only, then jugal lobe of hind wing very small, their mid-tibiae have two apical spurs and they have claws with one inner tooth. Notauli usually present and very long (Bohart and Menke, 1976). Some species are readily identified in the field by their metallic blue, green, black and red integument and habit of running rapidly for hunting their prey (Krombein, 1979). Both sexes significantly differ from each other. Females have mandibles specialized for gripping, six visible gastral segments, and generally fine punctation. Males on the other hand have rather simple mandibles, usually only three visible gastral segments, and coarser microsculpture (Bohart and Menke, 1976).

Female of all ampulicid species capture cockroaches to serve as food for its larva, hence the name cockroach wasps. It is possible to use these wasps as biological control agent against pestiferous cockroaches.

Taxonomy of ampulicid wasps are poorly studied in India. Fabricius (1781), Bingham (1897), Cameron (1891, 1899, 1900, 1902, 1903a and b), Turner (1912), Nurse (1914), Sudheendrakumar and Narendran (1989), Gupta (1995), Jonathan *et al.* (2000), Jonathan and Kundu (2003), Madhavikutty (2004), Girish Kumar and Sheela (2017), Girish Kumar and Sheikh (2018), Anagha and Girish Kumar (2019) made notable contribution to knowledge of family Ampulicidae from India. A frequently updating online world catalog on Ampulicidae ([http://research.calacademy.org/ent/catalog\\_sphecidae](http://research.calacademy.org/ent/catalog_sphecidae)) is being published by Pulawski (2020).

**Systematic Account**

**CLASS: INSECTA**

**ORDER: HYMENOPTERA**

**SUBORDER: APOCRITA (ACULEATA)**

**SUPERFAMILY: APOIDEA**

**FAMILY: AMPULICIDAE**

**SUBFAMILY: AMPULICINAE**

**Genus 1. *Ampulex* Jurine, 1807**

1. *A. aborensis* Nurse, 1914 — India: Assam, Meghalaya.
2. *A. approximata* Turner, 1912 — India: Gujarat, Maharashtra. *Elsewhere*: Sri Lanka; Thailand.
3. *A. assamensis* Cameron, 1903 — India: Meghalaya.
4. *A. carinifrons* Cameron, 1903 — India: Meghalaya.
5. *A. ceylonica* Krombein, 1979 — India: Kerala, Meghalaya, Tamil Nadu. *Elsewhere*: Indonesia; Laos; Sri Lanka.
6. *A. compressa* (Fabricius, 1781) — India: Andaman and Nicobar Islands, Arunachal Pradesh, Assam, Chhattisgarh, Himachal Pradesh, Karnataka, Kerala, Lakshadweep, Maharashtra, Meghalaya, Tripura, Uttarakhand, West Bengal. *Elsewhere*: Africa; Australia; Bangladesh; Brazil; China; France; Indonesia; Iran; Island of Bourbon; Island of Reunion; Island of St. Helena; New Caledonia; Hawaii island; Laos; Kenya; Madagascar; Mauritius; Nepal; Philippines; Seychelles; Saudi Arabia; Singapore; Sri Lanka; Tanzania; United Arab Emirates; Venezuela; Vietnam; Zanzibar.
7. *A. constanceae* (Cameron, 1891) — India: Maharashtra.
8. *A. crudelis* Bingham, 1897 — India: Meghalaya, Sikkim.
9. *A. difficilis* Strand, 1913 — India: Meghalaya. *Elsewhere*: China; Laos; Taiwan; Vietnam.
10. *A. dissector* (Thunberg, 1822) — India: Kerala, Uttarakhand. *Elsewhere*: China; Japan (including Ryukyu Islands); Korea; Laos; Sri Lanka; Taiwan; Thailand.
11. *A. himalayensis* Cameron, 1903 — India: Meghalaya.
12. *A. hospes cognata* Kohl, 1893 — India: Meghalaya. *Elsewhere*: Indonesia.
13. *A. interstitialis* Cameron, 1903 — India: Meghalaya.
14. *A. khasiana* Cameron, 1903 — India: Meghalaya.
15. *A. latifrons* Kohl, 1893 — India: Meghalaya, Sikkim. *Elsewhere*: China.
16. *A. longicollis* Cameron, 1902 — India: Meghalaya.
17. *A. major* Kohl, 1893 — India: Kerala. *Elsewhere*: Indonesia; Laos; Malaysia.
18. *A. montana* Cameron, 1903 — India: Meghalaya.
19. *A. nigricans* Cameron, 1899 — India: Meghalaya.
20. *A. pilosa* Cameron, 1900 — India: Meghalaya. *Elsewhere*: Malaysia.
21. *A. rothneyi* Cameron, 1902 — India: Meghalaya.
22. *A. ruficornis* Cameron, 1889 — India: West Bengal. *Elsewhere*: Sri Lanka; Thailand.
23. *A. ruficoxis* Cameron, 1902 — India: Meghalaya.
24. *A. sadiyae* Anagha and Girish Kumar, 2019 — India: Kerala.
25. *A. sikkimensis* Kriechbaumer, 1874 — India: Sikkim. *Elsewhere*: China.
26. *A. sodalicia* Kohl, 1893 — India: Sikkim. *Elsewhere*: Indonesia; Malaysia.



**Genus 2. *Dolichurus* Latreille, 1809**

27. *Dolichurus albifacies* Krombein, 1979 — India: Karnataka. *Elsewhere*: Sri Lanka.  
28. *Dolichurus amamiensis* Tsuneki and Iida, 1964 — India: Goa; Kerala. *Elsewhere*: China; Japan; Malaysia; Philippines; Sri Lanka; Taiwan; Thailand; Vietnam.  
29. *Dolichurus gilberti* Turner, 1912 — India: Arunachal Pradesh, Karnataka, Meghalaya.  
30. *Dolichurus taprobanae* Smith, 1869 — India: Assam, Bihar, Himachal Pradesh, Meghalaya, Nicobar Islands, Sikkim, Uttarakhand, West Bengal. *Elsewhere*: China; Indonesia; Laos; Malaysia; Myanmar; Sri Lanka; Thailand; Vietnam.  
31. *Dolichurus venkataramani* Girish Kumar and Sheikh, 2018 — India: Himachal Pradesh.

**Genus 3. *Trirogma* Westwood, 1841**

32. *Trirogma caerulea* Westwood, 1841 — India: Chhattisgarh, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Sikkim, Uttarakhand, West Bengal. *Elsewhere*: China; Indonesia; Iran; Iraq; Myanmar; Saudi Arabia; Singapore; Sri Lanka; Taiwan; United Arab Emirates.  
33. *Trirogma kohima* Girish Kumar and Sheela, 2017 — India: Nagaland.  
34. *Trirogma narendrani* Madhavikutty, 2004 — India: Kerala.  
35. *Trirogma regalis* Krombein, 1979 — India: Tamil Nadu. *Elsewhere*: Sri Lanka.

**REFERENCES**

- Anagha, S. and Girish Kumar, P. 2019. A taxonomic study of the genus *Ampulex* Jurine (Hymenoptera: Ampulicidae) from India with the description of one new species from Kerala. *Devagiri Journal of Science*, 5(1): 01–16.  
Bingham, C.T. 1897. *The Fauna of British India, including Ceylon and Burma, Hymenoptera, I - Wasps and Bees*. Taylor and Francis, London, 579+i–xxix.  
Bohart, R.M. and Menke, A.S. 1976. *Sphecid wasps of the world. A generic revision*. University of California Press, Berkeley, Los Angeles, London. 1 colour plate, IX + 695 pp.  
Cameron, P. 1891. Hymenopterological notices. *Memoirs and proceedings of the Manchester Literary & Philosophical Society*, 4(4): 182–194.  
Cameron, P. 1899. Description of a new genus and some new species of fossorial Hymenoptera from the Oriental Zoological Region. *Annals and Magazine of Natural History*, ser. 7, 4: 52–69. <https://doi.org/10.1080/00222939908678162>  
Cameron, P. 1900. Descriptions of new genera and species of aculeate Hymenoptera from the Oriental Zoological Region. *Annals and Magazine of Natural History*, ser. 7, 5: 17–41. <https://doi.org/10.1080/00222930008678237>  
Cameron, P. 1902. Descriptions of new species of Fossorial Hymenoptera from the Khasia Hills, Assam. *Annals and Magazine of Natural History*, 10(7): 54–69.  
Cameron, P. 1903a. On some new genera and species of parasitic and fossorial Hymenoptera from the Khasia Hills, Assam. *Annals and Magazine of Natural History*, ser. 7, 11: 313–331. <https://doi.org/10.1080/00222930308678748>  
Cameron, P. 1903b. Descriptions of twelve new genera and species of Ichneumonidae (Heresiarchini and Amblypygi) and three species of *Ampulex* from the Khasia Hills, India. *Transactions of the Entomological Society of London*, 51: 219–238.  
Fabricius, J.C. 1781. *Species Insectorum exhibentes eorum differentias specificas, synonyma auctorum, locanatalia, metamorphosin adiectis observationibus, descriptionibus*. 1. Carol. Ernest. Bohnii, Hamburgi et Kilonii [= Hamburg and Kiel]. I–VIII, 1–517 pp.

- Girish Kumar, P. and Sheela, S. 2017. A Taxonomic review of the genus *Trirogma* Westwood (Hymenoptera: Ampulicidae) from the Indian subcontinent with the description of a new species. *Devagiri Journal of Science*, **3**(1): 110–120.
- Girish Kumar, P. and Sheikh, A.H. 2018. A taxonomic review of the genus *Dolichurus* Latreille (Hymenoptera: Ampulicidae) from the India with the description of a new species. *Species*, **19**: 104–116.
- Gupta, S.K. 1995. Hymenoptera: In: Fauna of Western Himalaya (Part 1), Uttar Pradesh: Himalayan Ecosystem Series. *Zool. Surv. India*: 81–89.
- Jonathan, J.K., Ray, K.K. and Kundu, B.G. 2000. Insecta: Hymenoptera: Sphecidae. *Zool. Surv. India, Fauna of Meghalaya, State Fauna Series* **4**(7): 161–222.
- Jonathan, J.K. and Kundu, B.G. 2003. Insecta: Hymenoptera: Sphecidae. *Zool. Surv. India, Fauna of Sikkim, State Fauna Series* **9**(4): 417–446.
- Krombein, K.V. 1979. *Biosystematic Studies of Ceylonese Wasps, V: A Monograph of the Ampulicidae (Hymenoptera: Sphecoidea)*. *Smithsonian Contributions to Zoology*, **298**: 1–29.
- Madhavikutty, M. 2004. Description of a new species of the genus *Trirogma* Westwood (Hymenoptera: Spheciformes) from India, pp. 593–596. In: Rajmohana, K., Sudheer, K., Girish Kumar, P., Santhosh, S. (eds). Perspectives on biosystematics and biodiversity. Prof. T.C. Narendran commemoration volume. University of Calicut, Kerala, India. 666 pp.
- Nurse, C.G. 1914. Zoological results of the Abor expedition 1911–12. Hymenoptera, V: Fossores, Diploptera, Chrysididae. *Records of the Indian Museum*, **8**:443–447.
- Pulawski, W.J. 2020. Catalog of Sphecidae. Available on: [http://research.calacademy.org/ent/catalog\\_sphecidae](http://research.calacademy.org/ent/catalog_sphecidae) (accessed on 11<sup>th</sup> June 2020).
- Sudheendrakumar, V.V. and Narendran, T.C. 1989. Sphecoid wasps of Kerala, India. *Sphecos*, **18**: 11–12.
- Turner, R.E. 1912. Notes on fossorial Hymenoptera. – X. On new species from the Oriental and Ethiopian Regions. *Annals and Magazine of Natural History*, ser. **8**, **10**: 361–377. <https://doi.org/10.1080/00222931208693249>