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World catalog of the Stephanidae (Hymenoptera: Stephanoidea)

ALEXANDRE P. AGUIAR



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Abstract

The Stephanidae literature through July 2004 is summarized and 326 valid species, including 6 fossil species, are cataloged. Information on the localization of primary and secondary type material, as well as updated names for the localities of primary types, are provided for all valid and synonymized species. Literature treatment of male and female specimens is discriminated in the synonymic listing of all species. The following 90 nomenclatural changes are made:

Genus-level type designation (1): *Bothrioceros Europaeus* Sichel designated as type species of *Bothrioceros* Sichel.

New combinations (69): From *Diastephanus*: *Foenatopus alutaceus* (Morley), *F. anupam* (Narendran & Sureshan), *F. bilineatus* (Elliott), *F. burmaensis* (Narendran & Sureshan), *F. capitatus* (Benoit), *F. carinifrons* (Enderlein), *F. chinnaensis* (Sureshan), *F. chinensis* (Elliott), *F. christineae* (Narendran), *F. costifrons* (Elliott), *F. daccaensis* (Narendran & Sureshan), *F. dohrni* (Enderlein), *F. elegans* (Elliott), *F. elegantulus* (Elliott), *F. elongatus* (Elliott), *F. equatorialis* (Benoit), *F. flaviceps* (Elliott), *F. flavifrons* (Elliott), *F. frontilinea* (Morley), *F. fuscidens* (Kieffer), *F. gracilis* (Kieffer), *F. keralensis* (Narendran & Sureshan), *F. lucifer* (Elliott), *F. maculifemur* (Enderlein), *F. multicolor* (Elliott), *F. parviceps* (Enderlein), *F. parvulus* (Elliott), *F. priyae* (Narendran & Sureshan), *F. quadridens* (Elliott), *F. salomonis* (Westwood), *F. sangalensis* (Benoit), *F. semiglaber* (Elliott), *F. simillimus* (Elliott), *F. stom* (Narendran & Sureshan), *F. sudhae* (Narendran & Sureshan), *F. sulcatus* (Elliott), *F. szepligetii* (Enderlein), *F. tertianus* (Morley), *F. trialbatus* (Elliott), *F. trilineatus* (Elliott), *F. trilobatus* (Elliott), *F. wynadensis* (Sureshan & Narendran); from *Madegafoenus*: *Megischus bekilyanus* (Benoit), *M. occipitalis* (Benoit); from *Megischus*: *Afromegischus gigas* (Schletterer), *Foenatopus phoberopus* (Sausurre); from *Neostephanus*: *Foenatopus alluaudi* (Kieffer), *F. berlandi* (Benoit), *F. camerunus* (Enderlein), *F. collaris* (Benoit), *F. crassiceps* (Bischoff), *F. globiceps* (Enderlein), *F. insignis* (Schletterer), *F. longicaudatus* (Benoit), *F. micans* (Benoit), *F. obockensis* (Benoit), *F. oemidaphagus* (Benoit), *F. pauliani* (Benoit), *F. pentheri* (Kieffer); from *Pseudomegischus*: *Afromegischus tibiator* (Schletterer); from *Stephanus*: *Comnatopus xanthocephalus* (Cameron); *Megischus collectivus* (Elliott), *M. diversus* (Schletterer), *M. lanceolatus* (Kieffer), *M. sanmartinianus* (Orfila), *M. seyrigi* (Benoit), *M. hornianus* (Enderlein), *M. tricolor* (Elliott), *M. willineri* (Orfila).

Replacement names (3): *Foenatopus annularis* Aguiar, generic transfer and **replacement name** for *Diastephanus annulipes* Elliott, preventing secondary homonym with *F. annulipes* (Elliott); *F. rufocinctus* Aguiar, new status and **replacement name** for *Stephanus togoensis* var. *fasciatus* Enderlein, preventing secondary homonym with *F. fasciatus* Szépligeti; *Parastephanellus curtus* Aguiar, **replacement name** for secondary homonym of *P. curticollis* (Elliott) with *P. curticollis* Elliott.

New status (2): *Comnatopus* Achterberg, **new status** for *Profoenatopus* (*Comnatopus*) Achterberg; *Parastephanellus coriaceus* Kieffer, **new status** for *Parastephanellus polychromus* var. *coriacea* Kieffer.

New genus-group synonyms (1): *Pseudomegischus* (*Callomegischus*) Achterberg, **new synonymy** for *Afromegischus* Achterberg.

New species-group synonyms (7): *Stephanus comma* Morley, **new synonymy** for *Comnatopus xanthocephalus* (Cameron); *Foenatopus flavicollis flavissimus* Benoit, **new synonymy** for *F. flavicollis* Cameron; *Stephanus testaceipes* Elliott, *Stephanus iesuiticus* Orfila, *S. paraguayensis* Orfila, and *S. martinezi* Orfila, **new synonyms** for *Megischus maculipennis* Westwood; *Parastephanellus impunctatus* Elliott, **new synonymy** for *P. nigricaudus* (Sichel).

Reinstated name (1): *Megischus ruficeps* Saussure, **reinstated**, invalidating *M. saussurei* (Schulz).

Species inquirendum (1): *Schlettererius rufipes* (Say, 1824), a Braconidae.

Nomina nuda (3): *Foenus diadema* Fabricius, **nomen nudum** for *M. coronator* (Fabricius); *Stephanus curticauda* Elliott, **nomen nudum** for *M. curtus* (Elliott); *Stephanus frontalis* Klug, **nomen nudum**, correspondent species unknown.

Key-words: Stephanid, Braconidae, hosts, wasp, parasitoid, revision

Introduction

Stephanids have been part of the scientific literature for more than 200 years. Although the family is relatively small and has been studied by more than 150 authors, their relationships to other Hymenoptera, as well as their supra-specific classification, remain problematic. The taxonomic confusion in which this family has been immersed results, at least in part, from the fact that stephanids are not easily collected by traditional methods and are generally considered to be rare or extremely rare. This rarity has been used to justify proposals for new taxa based on single specimens. As a result, nearly 95% of all stephanid species were described from singletons. Another problem for stephanid classification is that these wasps exhibit a rich, but often continuous morphological variation.

For nearly a century and a half stephanids were classified with other, distantly related wasp clades (families), mostly because of their external similarity with some Ichneumonoidea. The first classification effort was that of Zschach (1788), who placed stephanids within Ichneumonidae. They were later transferred to Braconidae by Fabricius (1804), and then placed among the Evanioidea by Jurine (1807). Leach (1815) was the first author to propose a separate family for these wasps, placing the single stephanid species in “Stephanida,” which also included the genus *Xorides* (Ichneumonidae). Stephanida was classified within Ichneumonoidea.

The name Stephanidae was first used by Haliday (1839), but the notion that stephanids were somehow related to Ichneumonoidea persisted (e.g., Townes, 1949; Carlson, 1979; De Santis, 1967, 1980), being convincingly dismissed only after phylogenetic investigation (Rasnitsyn, 1980; Sharkey & Wahl, 1992). Stephanids are now classified in a separate superfamily, the Stephanoidea, originally proposed by Benoit (1949) but first correctly delimited by Rasnitsyn (1969), who excluded the “Stenophasmidae” (= Braconidae) from the superfamily.

All known stephanids develop as solitary idiobiont ectoparasitoids of wood boring insect larvae. Most host records are from Cerambycidae and Buprestidae, but there are records of stephanids attacking several other families of Coleoptera, as well as siricid wasp larvae and solitary bees. Indirect evidence suggests that host specificity is low, but unambiguous data on polyphagy are available only for two species: *Schlettererius cincipes* and *Stephanus serrator*. For references and a summary of stephanid biology, the reader is referred to Aguiar (2004b, 2005a).