ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 8, Issue, 11, pp.42047-42054, November, 2016

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

CHECKLIST OF GLOBAL DISTRIBUTION OF HYMENOPODIDAE (MANTODEA: DICTYOPTERA: INSECTA)

[1]Shveta Patel, [2]Garima Singh and [1,]*Rajendra Singh

[1]Department of Zoology, Deendayal Upadhyay Gorakhpur University, Gorakhpur – 273 009, U.P., India
[2]Department of Zoology, Rajasthan University, Jaipur, India

ARTICLE INFO

Article History:
Received 18th August, 2016
Received in revised form
09th September, 2016
Accepted 25th October, 2016
Published online 30th November, 2016

Key words:

Mantodea, Hymenopodidae,
World distribution,
Praying mantis, Checklist.

ABSTRACT

The praying mantids (Order Mantodea, Class Insecta) are a group of over 2500 carnivorous polyneopteran insects distributed in tropical and subtropical habitats of the world, from the rainforest to the desert ground. The order Mantodea comprises over 20 families, out of which the family Hymenopodidae, commonly known as flower mantids or orchid mantids is the most attractive with brilliant colours and camouflaging adornments and often mimic flowers. In this compilation, the family Hymenopodidae was grouped into most acceptable 5 subfamilies: Acromantinae (12 genera, 82 species), Epaphroditinae (1 genus, 3 species), Hymenopodinae (12 genera, 79 species), Oxypilinae (7 genera, 69 species), and Phyllocraniinae (2 genera, 5 species) consisting 34 genera and 238 species/subspecies. In India, 36 species of Hymenopodidae are on record so far. The global distribution of each species was given.

Citation: Shveta Patel, Garima Singh and Rajendra Singh, 2016. "Checklist of global distribution of hymenopodidae (mantodea: dictyoptera: insecta)", *International Journal of Current Research*, 8, (11), 42047-42054.

INTRODUCTION

The praying mantids are a group of over 2500 carnivorous polyneopteran (Order Mantodea: Superorder Dictyoptera) insects distributed in tropical and subtropical habitats of the world, from the rainforest to the desert ground. Mantids were formerly placed along with stick insects (now order Phasmatodea) cockroaches (now order Blattodea) and rock crawlers (now order Grylloblattodea) in the order Orthoptera. Later on, it was placed with the cockroaches and termites (now order Blattodea) into the order Dictyoptera, in the suborder Mantodea (Kristensen, 1995). Recently, the ordinal rank of Dictyoptera was elevated to Superorder including cockroaches and termites (now Order Blattodea), and mantids (now Order Mantodea) (Klass and Meier, 2006; Ware *et al.*, 2008; Legendre *et al.*, 2015). At the beginning of the 20th century several researchers studied the taxonomy and distribution of Mantodea in several countries of the world, particularly of Neotropical countries, Australia, Africa and Southeast Asia including India. Due to several inherent taxonomical problems, most of the species described originally became synonyms during revision works. Even the suprageneric classification of Mantodea varied considerable in recent years (Svenson and Whiting, 2004; Wieland, 2013; Agudelo and Rivera, 2015; Svenson *et al.*, 2015; Revera and Svenson, 2016).

Corresponding author: Rajendra Singh,
Department of Zoology, Deendayal Upadhyay Gorakhpur University, Gorakhpur – 273 009, U.P., India.

Most of the distributional records are scattered in literature. The checklists of Mantodea of different countries/continents/ecozones are published in recent past by several authors. Currently, Mantodea comprises over 20 families, out of which the family Mantidae alone includes 1261 species/subspecies described under 188 genera assigned to 21 subfamilies (Patel and Singh, 2016a]. Recently, global distribution of 6 families (Acanthopidae : 14 genera, 96 species/subspecies), Amorphoscelidae : 15 genera, 95 species/subspecies), Chaeteessidae : 1 genus, 6 species), Mantoidae : 2 genera, 12 species), Metallyticidae : 1 genus, 5 species), and Sibyllidae : 3 genera, 17 species/subspecies) comprising 36 genera and 231 species/subspecies are listed by Patel and Singh (2016b). Among the mantids, the Hymenopodidae, commonly called as flower mantids or orchid mantids are the most attractive with brilliant colours and camouflaging adornments and often mimic flowers. The coloration is aggressive mimicry, tempting prey to approach close enough to be captured and devoured. They have a raised process in the middle of their head and the inner margins of the front femora have alternating short and long spines with those on the tibiae being closely spaced and lying at an angle. The forewings are often decorated with bands or spiral markings making it look rather like a target or bulls eye and also aids in frightening off attackers. Recently, the morphological descriptions and natural history of the family and its subfamilies are described by Svenson *et al.* (2015). Hymenopodidae is a heterogenous group of mantids (Revera

and Svenson, 2016). Six subfamilies are assigned in this family, viz. Acromantinae, Hymenopodinae, Oxypilinae, Phyllocraniinae, Phyllothelyinae and Sibyllinae (Otte *et al*., 2016). The subfamily Phyllothelyinae was traditionally been kept in the family Mantidae which is recently transferred to Hymenopodidae and the subfamily Sibyllinae was considered as separate family (Sibyllidae) which is also recently demoted to subfamily of Hymenopodidae (Svenson *et al.*, 2015). While listing the distribution of global Mantoidea, Patel and Singh (2016a) have enlisted Phyllothelyinae into Mantidae and Patel and Singh (2016b) enlisted Sibyllinae as Sibyllidae. Ståll (1877) described the genus *Ambivia, popa* as a type species and assigned it to the family Harpagidae. Later on, Kirby (1904) assigned it to the subfamily Creobotrinae (Mantidae) and Giglio-Tos (1915) to Acromantinae (Mantidae). Currently, Acromantinae is a subfamily of Hymenopidae. One more species, *parapopa* was described by Wang (1993) in the genus *Ambivia*. *Mantis undata* described by Fabricius, 1793 was transferred to the genus *Popa* Serville, 1839 (Mantidae) by Beire (1930), later on it was transferred to *Ambivia* Ståll, 1877 by Kaltenbach (1998). Currently, both the species, *Ambivia popa* Ståll, 1877 and *Ambivia parapopa* Wang, 1993 were synonymised by Ehrmann (2015) to *Ambivia undata* (Fabricius, 1793), thus the genus is monotypic at present. The taxonomic status of the genus *Epaphrodita* Serville, 1831 is not finalized yet, some taxonomists kept it under the family Acanthopidae (Westwood, 1889; Travassos Filho, 1945; Terra, 1995), other in the subfamily Epaphroditinae (family unknown) (Giglio-Tos, 1915, 1919), tribe Epaphroditini in the subfamily Hymenopodinae (Beier, 1934), Acromantinae (Beier, 1964, 1968; Jantsch & Corseuil, 1988). Recently, *Epaphrodita* Serville, 1831 was assigned outside Hymenopodidae (Wieland, 2013; Svenson *et al.*, 2015), however, in the present listing, it is assigned to the tribe Epaphroditini in the subfamily Epaphroditinae under the family Hymenopodidae. One genus, *Amphecostephanus* Rehn, 1912 assigned earlier to Epaphroditinae is currently assigned to Mantidae (subfamily Amelinae, tribe Amelini). Only one subfamily Hymenopodinae seems to be homogenous (Roy, 1999). However, by molecular analysis of *Pseudocreobotra* Beauvois, 1870 (Hymenopodinae) and *Phyllocrania* Burmeister, 1838 (Phyllocraninae), both are considered to be monophyletic (Inward *et al.* 2007, Ware *et al.* 2008). Earlier, 3 species of the genus *Euantissa* Giglio-Tos, 1927, viz. *Euantissa ornata* Werner, 1935; *Euantissa pulchra* (Fabricius, 1787) and *Euantissa sinensis* (Giglio-Tos, 1915) were assigned to the genus *Odontomantis* Saussure, 1871 (Otte and Spearman, 2005). Later on, the generic status of *Euantissa* Giglio-Tos, 1927 was restated by Mukherjee *et al.* (2014) but recently, Svenson *et al.* (2015) once again synonymised *Euantissa* to *Odontomantis.* All this happens because of morphological heterogeneity in the morphological characters among the species which overlap between Hymenopodidae and Mantidae.

In the present compilation, global distribution of Hymenopodidae is provided. The work will help to solve some needs pertaining to studies on world mantids of this family, such as synonymic handling and distributions, as well as the lack of a complete and up-todate listing of the species. In preparing of this checklist, recent literatures (published up to October, 2016) were scrutinized for synonymy along with the information available at two websites (http://mantodea.speciesfile.org and http://www.gbif.org/species) accessed on 10 November, 2016.

Outline classification and distribution pattern of hymenopodidae

Due to continuous changes in the taxon nomenclature, variable number of genera were assigned to the family Hymenopodidae, e.g. 44 genera (Hymenopodinae-14 genera, Acromantinae-20 genera, Epaphroditinae-4 genera, Oxypilinae-6 genera) (Ehrmann 2002) to 47 genera (Hymenopodinae-13 genera, Acromantinae-25 genera, Epaphroditinae-1genus, Oxypilinae-8 genera) (Svenson & Whiting 2009). Currently, Hymenopodidae includes only 34 genera and 238 species in five subfamilies: Acromantinae (12 genera), Epaphroditinae (1 genus), Hymenopodinae (12 genera), Oxypilinae (7 genera) and Phyllocraninae (2 genera) (Table 1.).

Table 1. Outline classification of the family Hymenopodidae and number of genera and species assigned to them and their global distribution

Subfamilies	Tribes	Genus	Species	Distribution
Acromantinae	Acromantini	8	33	Southeast Asia, Australia (only 1 species)
	Otomantini	4	49	Africa
Epaphroditinae	Epaphroditini	1	3	Caribbean Islands
Hymenopodinae	Anaxarchini	4	31	Southeast Asia
	Hymenopodini	8	48	Africa, Southeast Asia
Oxypilinae	Oxypilini	7	69	Africa, Southeast Asia
Phyllocraniinae	Phyllocraniini	2	5	Africa, Southeast Asia
	Total	34	238	

Acromantinae is grouped into two tribes: Acromantini and Otomantini. The tribe Acromantini is exclusively distributed in the countries of southeast Asia including India, while the members of Otomantini are distributed throughout African countries. Only one species, *Acromantis australis* Saussure, 1871 (Acromantinae) is recorded from Australia (Rentz, 1996). The Epaphroditinae are restricted in Caribbean Islands (Antigua, Cuba, Hispaniola) and in Arizona State of USA. Two tribes Anaxarchini and Hymenopodini are included in the Hymenopodinae. The Anaxarchini is restricted into southeast Asia while the members of Hymenopodini are distributed both in southeast Asia (genera *Creobroter, Pseudocreobotra* and *Theopropus*) and Africa (genera *Childonoptera* and *Panurgica*). Like Hymenopodini, the members of Oxypilinae (= tribe Oxypilini) are distributed both in Southeast Asia (genera *Ceratomantis, Ephestiasula, Hestiasula, Pachymantis* and *Pseudoxypilus*) and Africa (genera *Junodia* and *Oxypilus*). The last subfamily Phyllocraniinae (=Phyllocraniini) contains only two genera, *Parablepharis* is distributed in Southeast Asia while *Phyllocrania* is distributed throughout African countries. In India, 36 species of Hymenopodidae are on record.

Global checklist

Following is the checklist of the global distribution of the family Hymenopodidae. Synonymy of the taxa were avoided and for that literature published in recent past may be consulted (Roy, 1966, 1969, 1972, 2009, 2013a, b, c, 2014; Ehrmann, 2002; Roy and Svenson, 2007; Bragg, 2008; Roy and Stiewe, 2013; Lombardo *et al.*, 2014; Mukherjee *et al.*, 2014; Svenson & Vollmer, 2014; Agudelo and Rivera, 2015;

Svenson *et al.*, 2015; Revera and Svenson, 2016; Shcherbakov *et al.*, 2016].

I. Subfamily: Acromantinae

1. Tribe: Acromantini

1. Genus: *Acromantis* Saussure, 1870

- *Acromantis australis* Saussure, 1871 [Aru Islands, Australia, Moluccas, Melanesia (Papua New Guinea), New Guiana, Oceania, Taiwan, Wagyu Islands]
- *Acromantis dyaka* Hebard, 1920 [Borneo]
- *Acromantis elegans* Lombardo, 1993 [Nepal]
- *Acromantis formosana* (Shiraki, 1911) [Taiwan]
- *Acromantis gestri* Giglio-Tos, 1915 [Malaysia, Thailand, Sumatra]
- *Acromantis grandis* Beier, 1930 [Nepal, Sumatra, Vietnam]
- *Acromantis hesione* Stål, 1877 [China, Philippines, USA- Louisiana]
- *Acromantis indica* Giglio-Tos, 1915 [Myanmar]
- *Acromantis insularis* Giglio-Tos, 1915 [India, Indonesia, Java, Nepal, Sumatra]
- *Acromantis japonica* Westwood, 1889 [China, Taiwan, Japan, Korea, North Korea, South Korea]
- *Acromantis lilii* Werner, 1922 [Java, Malaysia, Philippines]
- *Acromantis luzonica* Hebard, 1920 [Philippines]
- *Acromantis montana* Giglio-Tos, 1915 [Borneo, India, Indonesia, Java]
- *Acromantis moultoni* Giglio-Tos, 1915 [Borneo, Malaysia, Philippines, Sarawak]
- *Acromantis nicobarica* Mukherjee, 1995 [India]
- *Acromantis oligoneura* (de Haan, 1942) [Bali, India, Indonesia, Java, Sulawesi, Sumatra, Sunda Islands]
- *Acromantis palauana* Beier, 1972 [Micronesia-Palau]
- *Acromantis philippina* Beier, 1966 [Philippines]
- *Acromantis satsumensis* (Matsumura, 1913) [Japan]
- *Acromantis siporana* Giglio-Tos, 1915 [Mentawai Islands, Sumatra]

2. Genus: *Ambivia* Stål, 1877

- *Ambivia undata* (Fabricius, 1793) [Borneo, China, India, Laos, Malaysia, Myanmar, Nepal, Sri Lanka, Sumatra, Thailand, Vietnam]

3. Genus: *Citharomantis* Rehn, 1909

- *Citharomantis falcata* Rehn, 1909 [Borneo-Sarawak, Sabah; Malaysia, Sumatra]

4. Genus: *Majangella* Giglio-Tos, 1915

- *Majangella carli* Giglio-Tos, 1915 [Borneo-Sarawak, Cameroon, Java, Malaysia, Sumatra, Thailand]
- *Majangella moultoni* Giglio-Tos, 1915 [Borneo-Sarawak, Cameroon, Malaysia, Sumatra, Sunda Islands, Thailand]
- *Majangella ophirensis* Werner, 1922 [Malaysia-Sabah, Sumatra]

5. Genus: *Metacromantis* Beier, 1930

- *Metacromantis nigrofemorata* Ghate & Roy, 2006 [India]
- *Metacromantis oxyops* Beier, 1930 [Sri Lanka]

6. Genus: *Oligomantis* Giglio-Tos, 1915

- *Oligomantis hyalina* (Werner, 1916) [Sumatra]
- *Oligomantis mentaweiana* Giglio-Tos, 1915 [Mentawai Islands]
- *Oligomantis orientalis* Giglio-Tos, 1915 [Malaysia, Sumatra]

7. Genus: *Psychomantis* Giglio-Tos, 1915

- *Psychomantis borneensis* (Haan, 1842) [Borneo, Malaysia]
- *Psychomantis malayensis* (Beier, 1931) [Malaysia]

8. Genus: *Rhomantis* Giglio-Tos, 1915

- *Rhomantis moultoni* Giglio-Tos, 1915 [Borneo, Malaysia, Sunda Islands]

2. Tribe: Otomantini

9. Genus: *Anasigerpes* Giglio-Tos, 1915

- *Anasigerpes amieti* Roy, 1963 [Congo, Ivory Coast, Ghana, Guiana, Sierra Leone]
- *Anasigerpes bifasciata* Giglio-Tos, 1915 [Angola, Cameroon, Congo, Gabon, Ghana, Guiana, Ivory Coast, Nigeria, Ruwenzori]
- *Anasigerpes centralis* Roy, 1966 [Congo]
- *Anasigerpes grilloti* Roy, 1978 [Congo]
- *Anasigerpes heydeni* (Werner, 1908) [Cameroon, Central African Republic, Congo, Ivory Coast, Kenya, Gabon, Guiana, Uganda]
- *Anasigerpes nigripes* Roy, 1964 [Congo, Ghana, Ivory Coast]
- *Anasigerpes trifasciata* Giglio-Tos, 1915 [East Africa]
- *Anasigerpes unifasciata* Roy, 1979 [Ivory Coast, Ghana, Guinea, Nigeria, Sierra Leone]

10. Genus: *Chrysomantis* Giglio-Tos, 1915

- *Chrysomantis cachani* Roy, 1964 [Central Africa Republic, Congo, Gabon, Ivory Coast, Ghana, Guinea]
- *Chrysomantis congica* La Greca & Lombardo, 1987 [Congo]
- *Chrysomantis girardi* Gillon & Roy, 1968 [Guinea, Ivory Coast]
- *Chrysomantis royi* La Greca & Lombardo, 1987 [Gabon, Ghana, Kenya, Ivory Coast, Uganda]
- *Chrysomantis speciosa* Giglio-Tos, 1915 [Angola, Central Africa Republic, Congo, Gabon, Ghana, Ivory Coast]
- *Chrysomantis tessmanni* Werner, 1928 [Cameroon, Ghana, Nigeria]

11. Genus: *Otomantis* Bolivar, 1890

- *Otomantis aurita* (Saussure & Zehntner, 1895) [Madagascar, Tanzania]
- *Otomantis bolivari* Lombardo *et al.*, 2014 [Kenya, Tanzania]
- *Otomantis capirica* Giglio-Tos, 1915 [Angola, Cameroon, Congo-Kasai, Irangi]
- *Otomantis casaica* Beier, 1934 [Congo-Kasai]
- *Otomantis centralis* Lombardo *et al.*, 2014 [Congo-Kasai, Irangi, Angola]
- *Otomantis gracilis* Lombardo *et al.*, 2014 [Congo]
- *Otomantis minima* Stiewe, 2014 [South Africa]
- *Otomantis rendalli* (Kirby, 1899) [Malawi, Tanzania, Zambia]
- *Otomantis scutigera* Bolivar, 1890 [Eastern Africa, Malawi, Mozambique, Republic South Africa, Tanzania, Transvaal]
- *Otomantis trimacula* Lombardo *et al.*, 2014 [Zambia, Malawi]

12. Genus: *Oxypiloidea* Schulthess, 1898

- *Oxypiloidea (Catasigerpes) camerunensis* (Giglio-Tos, 1915) [Cameroon, Congo, Gabon, Ghana, Ivory Coast]
- *Oxypiloidea (Catasigerpes) centrafricana* Roy, 2013 [Central Africa Republic, Congo, Congo Democratic Republic, Gabon, Uganda]
- *Oxypiloidea (Catasigerpes) congica* (Giglio-Tos, 1915) [Angola, Cameroon, Congo, Congo Democratic Republic]
- *Oxypiloidea (Catasigerpes) granulata* (Roy, 1965) [Guinea, Mount Nimba]
- *Oxypiloidea (Catasigerpes) ivoirensis* Roy, 2013 [Ghana, Ivory Coast]
- *Oxypiloidea (Catasigerpes) maldesi* Roy, 2013 [Togo]
- *Oxypiloidea (Catasigerpes) margarethae* (Werner, 1912) [Cameroon, Chad, Congo Republic, Ethiopea, Gabon, Kenya, Namibia, Niger, Nigeria, Central Africa Republic, Sudan, Uganda]
- *Oxypiloidea (Catasigerpes) maroccana* Roy, 2013 [Morocco]
- *Oxypiloidea (Catasigerpes) occidentalis* (Wood-Mason, 1879) [Burkana Faso, Gambia, Ghana, Guinea, Ivory Coast, Libaria, Mali, Nigeria, Senegal, Sierra Leone, Togo]
- *Oxypiloidea (Catasigerpes) orientalis* Roy, 2013 [Somalia]
- *Oxypiloidea (Catasigerpes) sinuata* Roy, 2013 [Zimbabwe]
- *Oxypiloidea (Oxypiloidea) acuminata* (Kevan, 1954) [Ethiopea, Kenya, Somalia, Tanzania]
- *Oxypiloidea (Oxypiloidea) angolica* Roy, 2013 [Angola]
- *Oxypiloidea (Oxypiloidea) carvalhoi* Roy, 2013 [Angola]
- *Oxypiloidea (Oxypiloidea) dargei* Roy, 2013 [Tanzania, Uganda]
- *Oxypiloidea (Oxypiloidea) denticulata* Roy, 2013 [Angola]
- *Oxypiloidea (Oxypiloidea) lobata* Schulthess-Schindler, 1898 [Kenya, Somalia, Tanzania]
- *Oxypiloidea (Oxypiloidea) murphyi* Roy, 2013 [Malawi]
- *Oxypiloidea (Oxypiloidea) namibiana* Roy, 2013 [Namibia, Zimbabwe]
- *Oxypiloidea (Oxypiloidea) tridens* (Saussure, 1872) [Angola, Botswana, Chad, Congo Republic, Kenya, Mozambique, Namibia, Sudan, Tanzania, Transvaal, Zimbabwe, South Africa]
- *Oxypiloidea (Oxypiloidea) zernyi* (Beier, 1942) [Tanzania]
- *Oxypiloidea brunneriana* (Saussure, 1871, *incertae sedis*) [Kenya, Somalia, Sudan]
- *Oxypiloidea jeanneli* (Chopard, 1938, *incertae sedis*) [Chad, Kenya]
- *Oxypiloidea mortuifolia* (Saussure, 1899, *incertae sedis*) [Somalia, Tanzania]
- *Oxypiloidea nigerica* (Giglio-Tos, 1915, *incertae sedis*) [Nigeria]

II. Subfamily: Epaphroditinae

1. Tribe: Epaphroditini

13. Genus: *Epaphrodita* Audinet-Serville, 1831

- *Epaphrodita lobivertex* Lombardo & Perez-Gelabert, 2004 [Arizona-USA, Dominican Republic, Hispaniola]
- *Epaphrodita musarum* (Palisot de Beauvois, 1805) [Cuba, Hispaniola-Dominican Republic, Haiti]
- *Epaphrodita undulata* Saussure, 1870 [Antigua, Arizona-USA, Hispaniola]

III. Subfamily: Hymenopodinae

1. Tribe: Anaxarchini

14. Genus: *Anaxarcha* Stål, 1877

- *Anaxarcha acuta* Beier, 1963 [India, Bhutan]
- *Anaxarcha graminea* Stål, 1877 [India, Malayasia, Myanmar, Thailand]
- *Anaxarcha hyalina* Zhang, 1988 [China]
- *Anaxarcha limbata* Giglio-Tos, 1915 [India, Borneo, Malay Peninsula, Sarawak, Sumatra, Thailand]
- *Anaxarcha maculata* Mao & Yang, 2002 [China]
- *Anaxarcha pulchella* Werner, 1922 [?]
- *Anaxarcha pulchra* (Werner, 1922) [Sumatra]
- *Anaxarcha sinensis* Beier, 1933 [China, Japan]
- *Anaxarcha tianmushanensis* Zheng, 1985 [China]
- *Anaxarcha zhengi* Ren & Wang, 1994 [China]

15. Genus: *Heliomantis* Giglio-Tos, 1915

- *Heliomantis elegans* (Navás, 1904) [Bhutan, India, Nepal]

16. Genus: *Odontomantis* Saussure, 1871

- *Odontomantis brachyptera* Zheng, 1989 [China]
- *Odontomantis buhleri* Beier, 1952 [Sumba]
- *Odontomantis chayuensis* Zheng, 1989 [China]
- *Odontomantis euphrosyne* Stål, 1877 [Malaysia, Philippines]
- *Odontomantis foveafrons* Zhang, 1985 [China]

- *Odontomantis hainana* Tinkham, 1937 [China]
- *Odontomantis laticollis* Beier, 1933 [China]
- *Odontomantis longipennis* Zheng, 1989 [China]
- *Odontomantis micans* (Saussure, 1871) [India, Borneo, Mentawai-Island, Sumatra, Sunda Island, Sri Lanka, Thailand]
- *Odontomantis montana* Giglio-Tos, 1915 [India, Malayasia, Sumatra]
- *Odontomantis monticola* Beier, 1933 [China]
- *Odontomantis nigrimarginalis* Zhang, 1985 [China]
- *Odontomantis ornata* (Werner, 1935) [India, Bangladesh]
- *Odontomantis parva* Giglio-Tos, 1915 [Vietnam]
- *Odontomantis planiceps* (de Haan, 1842) [Argentina, Borneo, China, Dutch East Indies, Java, Malaysia, Philippines, Sumatra, Taiwan, Thailand]
- *Odontomantis pulchra* (Fabricius, 1787) [China, India, Sri Lanka]
- *Odontomantis rhyssa* Werner, 1930 [Borneo-Sarawak]
- *Odontomantis sinensis* (Giglio-Tos, 1915) [China]
- *Odontomantis xizangensis* Zheng, 1989 [China]

17. Genus: *Werneriana* Shcherbakov, Ehrmann & Borer, 2016

- *Werneriana latipennis* (Werner, 1930) [Borneo-Sarawak]

2. Tribe: Hymenopodini

18. Genus: *Chlidonoptera* Karsch, 1892

- *Chlidonoptera chopardi* Roy, 1964 [Ivory Coast, Ghana, Guinea]
- *Chlidonoptera lestoni* Roy & Leston, 1975 [Cameroon, Ghana]
- *Chlidonoptera vexillum* Karsch, 1892 [Cameroon, Congo, Gabon, Tanzania]
- *Chlidonoptera werneri* Giglio-Tos, 1915 [Kenya, Tanzania]

19. Genus: *Chloroharpax* Werner, 1908

- *Chloroharpax modesta* (Gerstaecker, 1883) [Cameroon, Congo, Ivory Coast, Gabon, Ghana, Guinea, Nigeria, Sierra Leone]

20. Genus: *Creobroter* Westwood, 1889

- *Creobroter apicalis* (Saussure, 1869) [Bangladesh, Bhutan, China, India, Java, Nepal]
- *Creobroter celebensis* Werner, 1931 [Indonesia-Sulawesi]
- *Creobroter discifera* (Serville, 1839) [India, Java]
- *Creobroter elongata* Beier, 1929 [India, Thailand]
- *Creobroter episcopalis* (Stål, 1877) [Borneo, Malaysia]
- *Creobroter fasciatus* Werner, 1927 [Indonesia-Sulawesi]
- *Creobroter fuscoareatus* (Saussure, 1870) [Thailand]
- *Creobroter geminata* (Stoll, 1813) [China, Indien, Java, Myanmar, Sundamseln, Vietnam]
- *Creobroter gemmatus* (Saussure, 1869) [China, India, Java, Myanmar, Nepal, Sunda Island, Thailand, Vietnam]
- *Creobroter granulicollis* (Saussure, 1870) [Borneo, Java, Malaysia, Sumatra, Thailand]
- *Creobroter insolitus* Beier, 1942 [Indonesia-Sulawesi]
- *Creobroter jiangxiensis* Zheng, 1988 [China]
- *Creobroter labuanae* Hebard, 1920 [Bornio, Brunei]
- *Creobroter laevicollis* (Saussure, 1870) [India, Java]
- *Creobroter medanus* Giglio-Tos, 1915 [Sumatra]
- *Creobroter meleagris* (Stål, 1877) [Philippines, Vietnam]
- *Creobroter nebulosa* Zheng, 1988 [China]
- *Creobroter pictipennis* Wood-Mason, 1878 [India, Pakistan, Sri Lanka, Sulawesi]
- *Creobroter signifer* (Walker, 1859) [Sri Lanka]
- *Creobroter sumatranus* (de Haan, 1842) [Java, Malaysia-Perak, Sumatra]
- *Creobroter urbanus* (Fabricius, 1775) [Borneo, China, India, Java, Myanmar, Nepal, Philippines, Sumatra, Thailand, Vietnam]
- *Creobroter vitripennis* Beier, 1933 [China]

21. Genus: *Helvia* Stål, 1877

- *Helvia cardinalis* Stål, 1877 [Borneo, Malaysia, Thailand, Sumatra, Sunda Islands]

22. Genus: *Hymenopus* Serville, 1831

- *Hymenopus bicornis* (Latreille, 1807) [Indonesia, Malaysia]
- *Hymenopus coronatoides* Wang & *et al.*, 1994 [China]
- *Hymenopus coronatus* (Olivier, 1792) [Ambon, Borneo, China, Flores, India, Java, Laos, Malaysia, Myanmar, Nias, Sumatra, Thailand, Vietnam]

23. Genus: *Panurgica* Karsch, 1896

- *Panurgica basilewskyi* La Greca, 1954 [Congo]
- *Panurgica compressicollis* (Saussure, 1898) [Cameroon, Ghana, Togo]
- *Panurgica duplex* Karsch, 1896 [Cameroon, Libera, Mount Nimba, Togo]
- *Panurgica feae* Griffini, 1907 [Angola, Cameroon, Gabon, Ghana, Guinea]
- *Panurgica fratercula* Rehn, 1912 [Ghana, Guinea, Ivory Coast, Liberia]
- *Panurgica fusca* (Giglio-Tos, 1915) [Cameroon, Gabon, Kenya]
- *Panurgica langi* Rehn, 1949 [Congo]
- *Panurgica liberiana* Rehn, 1912 [Liberia]
- *Panurgica mende* Rehn, 1949 [Sierra Leone]
- *Panurgica rehni* La Greca, 1954 [Congo, Gabon]

24. *Pseudocreobotra* Beauvois, 1870

- *Pseudocreobotra amarae* Rehn, 1901[Somalia]
- *Pseudocreobotra ocellata* (Beauvois, 1805) [Angola, Benin, Burkina Faso, Cameroon, Congo Democratic Republic , Ethiopia, Ghana, Guinea, Ivory Coast, Kenya, Liberia, Mozambique, Nigeria, Senegal, Sierra Leone, Tanzania, Togo, Uganda, Zimbabwe]

- *Pseudocreobotra wahlbergi* Stål, 1871 [Angola, Congo, Ethiopia, Kenya, Malawi, Mozambique, Natal, Tanzania, Transvaal, Uganda, Zambia, Zimbabwe, Zinzibar]

25. Genus: *Theopropus* Saussure, 1898

- *Theopropus borneensis* Beier, 1942 [Borneo]
- *Theopropus cattulus* (Westwood, 1889) [Java, Sumatra]
- *Theopropus elegans* (Westwood, 1832) [Borneo, Java, Malaysia, Myanmar, Sumatra, Thailand, Vietnam]
- *Theopropus rubrobrunneus* Beier, 1931 [Malaysia]

IV. Subfamily: Oxypilinae

1. Tribe: Oxypilini

26. Genus: *Ceratomantis* Wood-Mason, 1876

- *Ceratomantis ghatei* Roy & Svenson, 2007 [India]
- *Ceratomantis gigliotosi* Roy, 2007 [Borneo]
- *Ceratomantis kimberlae* Svenson, 2007 [Malaysia]
- *Ceratomantis saussurii* Wood-Mason, 1876 [Borneo, Malaysia, Myanmar, Thailand, Vietnam]
- *Ceratomantis yunnanensis* Zhang, 1986 [China]

27. Genus: *Ephestiasula* Giglio-Tos, 1915

- *Ephestiasula amoena* (Bolivar, 1897) [India]
- *Ephestiasula intermedia* Werner, 1930 [India]
- *Ephestiasula obscura* (Lombordo, 1995) [Nepal]
- *Ephestiasula pictipes* (Wood-Mason, 1879) [India, Nepal]
- *Ephestiasula woodmasoni* Mukherjee, Stiewe & Ghorai, 2010 [India]

28. Genus: *Hestiasula* Saussure, 1871

- *Hestiasula basinigra* Zhang, 1992 [China]
- *Hestiasula brunneriana* Saussure, 1871 [India, Nepal, Pakistan, Sri Lanka]
- *Hestiasula castetsi* (Bolivar, 1897) [India]
- *Hestiasula ceylonica* Beier, 1956 [Sri Lanka]
- *Hestiasula gyldenstolpei* Werner, 1930 [Thailand]
- *Hestiasula hoffmanni* Tinkham, 1937 [China]
- *Hestiasula inermis* (Wood-Mason, 1879) [India]
- *Hestiasula javana* Beier, 1929 [Java]
- *Hestiasula kastneri* Beier, 1942 [India]
- *Hestiasula major* Beier, 1929 [China, Japan, Vietnam]
- *Hestiasula masoni* Giglio-Tos, 1915 [India]
- *Hestiasula moultoni* (Giglio-Tos, 1915) [Borneo]
- *Hestiasula nigrofemorata* Werner, 1930 [India]
- *Hestiasula nitida* (Brunner, 1892) [India, Borneo, Myanmar, Sumatra]
- *Hestiasula phyllopus* (de Haan, 1842) [Borneo, Java, Malaysia, Myanmar, Sumatra]
- *Hestiasula rogenhoferi* (Saussure, 1872) [Indonesia-Maluku]
- *Hestiasula seminigra* Zhang, 1992 [China]
- *Hestiasula woodi* Giglio-Tos, 1915 [India, Myanmar, Sumatra, Borneo]
- *Hestiasula zhejiangensis* Zhou & Shen, 1992 [China]

29. Genus: *Junodia* Schulthess-Rechberg, 1899

- *Junodia amoena* Schulthess-Rechberg, 1899 [Ethiopea, Kenya, Mozambique, Tanzania]
- *Junodia beieri* Roy, 1972 [Congo]
- *Junodia congica* Giglio-Tos, 1915 [Congo Democratic Republic, Zambia, Zimbabwe]
- *Junodia hararensis* Roy, 1972 [Ethiopea, Somalia]
- *Junodia lameyi* Beier, 1942 [Angola, Cameroon, Congo, Ghana, Guinea, Ivory Coast]
- *Junodia maternaschulzei* Stiewe & Roy, 2010 [Kenya]
- *Junodia spinosa* Roy, 1972 [Congo]
- *Junodia stiewei* Roy, 2009 [Kenya]
- *Junodia strigipennis* (Westwood, 1889) [Ethiopea, Mozambique, Natal, Tanzania, Zimbabwe]
- *Junodia vansomereni* Roy, 1972 [Uganda]
- *Junodia vansoni* Roy, 2009 [South Africa-Saltpan]

30. Genus: *Oxypilus* Serville, 1831

- *Oxypilus (Anoxypilus) burri* (Roy, 1969) [Angola, Senegal]
- *Oxypilus (Anoxypilus) capensis* (Saussure, 1871) [Republic South Africa]
- *Oxypilus (Anoxypilus) inscriptus* (Beier, 1955) [Republic South Africa]
- *Oxypilus (Anoxypilus) meruensis* (Sjostedt, 1909) [Angola, Cameroon, Congo, Ethiopea, Kenya, Malawi, Mozambique, Namibia, Nigeria, Republic South Africa Sudan, Tanzania, Uganda, Zambia, Zimbabwe]
- *Oxypilus (Anoxypilus) polyacanthus* Giglio-Tos, 1915 [Angola, Congo Democratic Republic]
- *Oxypilus (Anoxypilus) servillei* Roy & Stiewe, 2013 [Colombia]
- *Oxypilus (Anoxypilus) transvalensis* (Giglio-Tos, 1915) [Angola, Cameroon, Congo, Ethiopea, Kenya, Malawi, Mozambique, Namibia, Nigeria, Sudan, Tanzania, Uganda, Zambia, Zimbabwe]
- *Oxypilus (Oxypilus) annulatus* Serville, 1831 [Mount Nimba, Senegal]
- *Oxypilus (Oxypilus) cherlonneixi* Roy, 1999 [Gabon]
- *Oxypilus (Oxypilus) descampsi* Roy, 1966 [Chad, Ethiopea, Kenya, Niger, Sudan]
- *Oxypilus (Oxypilus) enei* Roy, 1966 [Cameroon, Nigeria, Togo]
- *Oxypilus (Oxypilus) falcatus* Roy, 1966 [Cameroon, Central Africa Republic, Congo, Congo Democratic Republic, Sudan, Uganda]
- *Oxypilus (Oxypilus) flavicoxa* Roy, 1964 [Ivory Coast, Liberia]
- *Oxypilus (Oxypilus) gillonae* Roy, 1966 [Ivory Coast]
- *Oxypilus (Oxypilus) guentheri* Roy, 1966 [Cameroon, Nigeria]
- *Oxypilus (Oxypilus) hamatus* Roy, 1966 [Benin, Ghana, Nigeria, Togo]
- *Oxypilus (Oxypilus) lamottei* Roy, 1966 [Guinea, Liberia]
- *Oxypilus (Oxypilus) maculifemur* Roy & Stiewe, 2013 [Tanzania]
- *Oxypilus (Oxypilus) montanus* Roy, 1999 [Burundi, Kenya, Rwanda, Tanzania, Uganda]
- *Oxypilus (Oxypilus) pallidus* Roy, 1966 [Ivory Coast]

- *Oxypilus (Oxypilus) pierrei* Roy & Stiewe, 2013 [Malawi]
- *Oxypilus (Oxypilus) raggei* Roy, 1969 [Somalia]
- *Oxypilus (Oxypilus) tanzanicus* Roy, 1969 [Tanzania]
- *Oxypilus (Oxypilus) villiersi* Roy, 1966 [Benin, Ivory Coast]

31. Genus: *Pachymantis* Saussure, 1871

- *Pachymantis bicingulata* (de Haan, 1842) [Borneo, Java, Malaysia, Myanmar, Sumatra]
- *Pachymantis dohertii* (Wood-Mason, 1890) [Malaysia-Perak]
- *Pachymantis maculicoxa* Roy, 2013 [Borneo, Malaysia]
- *Pachymantis piceifemur* Roy, 2013 [Borneo, Malaysia]

32. Genus: *Pseudoxypilus* Giglio-Tos, 1915

- *Pseudoxypilus hemerobius* (Stoll, 1788) [Sri Lanka]

V. Subfamily: Phyllocraniinae

1. Tribe: Phyllocranini

33. Genus: *Parablepharis* Saussure, 1870

- *Parablepharis kuhlii asiatica* Roy, 2008 [India, Laos, Myanmar, Thailand, Vietnam]
- *Parablepharis kuhlii kuhlii* de Haan, 1842 [Borneo, Java]

34. Genus: *Phyllocrania* Burmeister, 1838

- *Phyllocrania illudens* Saussure & Zehntner, 1895 [Medagascar]
- *Phyllocrania insignis* Westwood, 1843 [Cameroon]
- *Phyllocrania paradoxa* Burmeister, 1838 [Angola, Burkana Faso, Cameroon, Congo, Ethiopia, Ghana, Guinea, Ivory Coast, Kenya, Mount Nimba, Namibia, Niokola-Koba, Madagascar, Malawi, Mozambique, Republic South Africa, Somalia, Sudan, Tanzania , Togo, Uganda]

Conclusion

The distribution pattern of Hymenopodidae demonstrated that most of the species are distributed into Southeast Asia, Africa and Caribbean Islands. Only one species, *Acromantis australis* Saussure, 1871 is also reported from Australia and subfamily Epaphroditinae is also represented in Arizona-USA. All subfamilies except Epaphroditinae are represented in India. Out of 238 valid species of Hymenopodidae, only 36 belong to India.

REFERENCES

Agudelo, A.A. and Rivera, J. 2015. Some taxonomic and nomenclatural changes in American Mantodea (Insecta, Dictyoptera) - Part I. *Zootaxa*, 3936 (3): 335–356.

Beier, M. 1930. New and rare Mantodea (Orthoptera) in the British Museum. *Annals & Magazine of Natural History London*, 10 (6): 432-460.

Beier, M. 1934. Mantodea. Subfamilie: Hymenopodinae. In: Wytsman, P. (Ed), Genera Insectorum. Fasc. 196, Bruxelles, pp. 37.

Beier, M. 1964. Blattopteroidea-Mantodea. In: Bronn, H.G. (Ed.), Bronn‘s Klassen und Ordnungen des Tierreichs, Vol. 5, Insecta-Arthropoda, Part III, Book 5, Number 5, Akademische Verlagsgesellschaft Geest & Portig K.-G. pp. 850–970.

Beier, M. 1968. Mantodea (Fangheuschrecken). In: Helmcke, J.-G., Starck, D. & Wermuth, H. (Ed.), Handbuch der Zoologie. 4(2) 2/12. Walter de Gruyter & Co., Berlin, pp. 1–47.

Bragg, P.E. 2008. Records of the genus *Citharomantis* Rehn, 1909 from Borneo (Insecta: Mantodea: Hymenopodidae: Acromantinae). *Sepilok Bulletin*, 8: 1-8.

Ehrmann, R. 2002. Mantodea Gottesanbeterinnen der Welt. *Munster: Natur und Tier-Verlag*, pp. 519.

Ehrmann, R. and Borer, M. 2015. Mantodea (Insecta) of Nepal: an annotated checklist. In Hartmann, M. & J. Weipert: Biodiversitat & Naturausstattung im Himalaya, Bd. Vietnam, pp. 227-274.

Fabricius, J.C. 1793. Entomologia Systematica. Mantodea & Phasmodea. Vol. 2. Prost, Hafniae, Kopenhagen, VIII + 519 pp.

Giglio-Tos, E. 1915. Mantidi esotici. Generi e specie nuove. *Bullettino della Societa Entomologica Italiana*, 46: 31–108.

Giglio-Tos, E. 1915. Mantidi Esotici. VILI. Acromantinae. *Bollettino dei Musei di Zoologia ed Anatomia comparata della Reale Università di Torino*, No. 702, 30: 1-16.

Giglio-Tos, E. 1919. Saggio di una nuova classificazione dei Mantidi. *Bullettino della Societa Entomologica Italiana*, 49: 50–87.

Inward, D., Beccaloni, G. and Eggleton, P. 2007. Death of an order: A comprehensive molecular phylogenetic study confirms that termites are eusocial cockroaches. *Biology Letters,* 3: 331-335.

Jantsch, L.J. and Corseuil, E. 1988. Especies de Louva-a-Deus (Insecta, Mantodea) do Rio Grande do Sul, Brasil. *Revista Brasileira de Zoologia*, 5: 221–243.

Kaltenbach, A.P. 1998. Unterlagen fur eine Monographie der Mantodea des sudlichen Afrika: 2.- Bestimmungstabellen fur die hoheren Taxa, Nachtrage zum Artenbestand. *Annalen des Naturhistorischen Museum in Wien*, 100B: 19–59.

Kirby, W.F. 1904b. A synonymic Catalogue of Orthoptera. London, Vol. 1: pp. 501.

Klass, K.D. and Meier, R. 2006. A phylogenetic analysis of Dictyoptera (Insecta) based on morphological characters. *Entomologische Abhandlungen,* 63(1-2): 3–50.

Kristensen, N.P. 1995. Forty years’ insect phylogenetic systematics. *Zoologische Beiträge* (NF), 36: 83–124.

Legendre, F., Nel, A., Svenson, G.J., Robillard, T., Pellens, R. and Grandcolas, F. 2015. Phylogeny of Dictyoptera: dating the origin of cockroaches, praying mantises and termites with molecular data and controlled fossil evidence. *PLoS ONE*, 10, e0130127. DOI: 10.1371/journal.pone.0130127.

Lombardo, F., Stiewe, M., Ippolito, S. and Marletta, A. 2014. A taxonomic revision of Otomantis Bolivar, 1890 (Mantodea: Hymenopodidae, Acromantinae) with description of five new species. *Zootaxa*, 3797: 169–193. DOI: 10.11646/zootaxa.3797.1.13.

Mukherjee, T.K., Ehrmann, R. and Chatterjee, P. 2014. Checklist of Mantodea (Insecta) from India. *Priamus* (Serial Publication of the Centre for Entomological Studies Ankara), (Suppl.) 30: 1-61.

Otte, D., Spearman, L. and Stiewe, M.B.D. 2016. Mantodea Species File Online. Version 5.0/5.0. [retrieved on 15.10.2016]. http://Mantodea.SpeciesFile.org.

Patel, S and Singh, R. 2016a. Update Checklist and Distribution of Mantidae (Mantodea: Insecta of the World. *International journal Research Studies in Zoology* 2(4): 17-54.

Patel, S. and Singh, R. 2016b. Updated checklist and global diversity of Chaeteessidae, Mantoididae, Metallyticidae, Acanthopidae, Amorphoscelididae and Sibyllidae (Mantodea: Insecta). *International journal of Research Studies in Zoology* 2(4): 55-67.

Rentz, D.C.F. 1996. Grasshopper Country. The abundant orthopteroid insects of Australia. -Sydney: New South Wales University Press, pp. 284.

Revera, J. and Svenson, G.J. 2016. The Neotropical 'polymorphic earless praying mantises' - Part I: molecular phylogeny and revised higher-level systematics (Insecta: Mantodea, Acanthopoidea). *Systematic Entomology,* 41: 607–649. DOI: 10.1111/syen.12178.

Roy, R. 1966. Revision preliminaire du genre *Oxypilus* Audinet-Serville (Mantodea). *Bulletin de l'Institut Fondamental d'Afrique Noire*, Dakar, 28, sér. A, n° 4: 1420-1486.

Roy, R. 1969. Compléments à la connaissance du genre *Oxypilus* (Mantodea). *Bulletin de l'Institut Fondamental d'Afrique Noire*, Dakar, 31, ser. A, n° 4: 1105-1127.

Roy, R. 1972. Contribution a la connaissance du genre *Junodia* (Mantodea: Hymenopodidae). *Bulletin de l'Institut Fondamental d'Afrique noire*, Serie A, 34: 550–589.

Roy, R. 2009. Nouvelles donnees sur le genre *Junodia* Schulthess, 1899 (Mantodea, Hymenopodidae). *Bulletin de la Societe Entomologique de France*, 114: 119–127.

Roy, R. 2013a. Revision du genre *Pachymantis* Saussure, 1871 (Mantodea, Hymenopodidae). *Bulletin de la Societe Entomologique de France*, 118: 145–154.

Roy, R. 2013b. Mises au point sur le genre *Chrysomantis* Giglio-Tos, 1915 (Mantodea, Hymenopodidae). *Bulletin de la Societe Entomologique de France*, 118: 463–472.

Roy, R. 2013c. Revision du genre africain *Oxypiloidea* Schulthess, 1898 (Dictyoptera, Mantodea, Hymenopodidae). *Zoosystema*, 35, 277–359. DOI: 10.5252/z2013n3a1.

Roy, R. 2014. A historical review of nomenclature and high-level classification of praying mantises (Mantodea), including a provisional checklist of the names associated to suprageneric ranks. *Zootaxa*, 3797: 9–28. DOI: 10.11646/zootaxa.3797.1.5.

Roy, R. and Svenson, G.J. 2007. Revision of the genus *Ceratomantis* Wood-Mason (Dictyoptera, Mantodea). *Bulletin de la Societe Entomologique de France* 112 (4): 433-444.

Roy, R. and Stiewe, M.B.D. 2013. Bilan Des Connaissances Relatives Au Genre *Oxypilus* Audinet Serville (Mantodea, Hymenopodidae). *Revue Française d'Entomologie*, 33 (1-4): 27-54.

Shcherbakov, E., Ehrmann, R. and Borer, M. 2016. Revision of the genus *Heliomantis* Giglio-Tos 1915 (Insecta: Mantodea: Hymenopodidae). *Annales de la Societe entomologique de France (N.S.)*, 52(3): 135-149.

Stal, C. 1877. Systema Mantodeorum. Essai d'une systematisation nouvelle des Mantodees. *Bihang till kongliche Svenska Vetenskaps Akademien Handlingar, Stockholm* 4 (10): 1-91.

Svenson, G.J. and Vollmer, W. 2014. A case of the higher-level classification of praying mantises (Dictyoptera, Mantodea) obscuring the synonymy of *Majangella* Giglio-Tos, 1915 (Liturgusidae, Liturgusinae) and *Ephippiomantis* Werner, 1922 (Hymenopodidae, Acromantinae). *Zootaxa*, 3797: 103–119. DOI: 10.11646/zootaxa.3797.1.10

Svenson, G.J. and Whiting, M.F. 2004. Phylogeny of Mantodea based on molecular data: evolution of a charismatic predator. *Systematic Entomology,* 29: 359–370.

Svenson, G.J. and Whiting, M.F. 2009. Reconstructing the origins of praying mantises (Dictyoptera, Mantodea): The roles of Gondwanan vicariance and morphological convergence. *Cladistics*, 25(5): 468-514.

Svenson, G.J., Hardy, C.W. and Wieland, F. 2015. Of flower and twigs: phylogenetic revision of the plant mimicking praying mantises (Mantodea: Empusidae and Hymenopodidae) with a new suprageneric classification. *Systematic Entomology* DOI:10.1111/syen.(12134): 1-82.

Terra, P.S. 1995. Revisao Sistematica dos Generos de Louva-a-Deus da Regiao Neotropical. (Mantodea). *Revista Brasileira de Entomologia*, 39: 13–94.

Travassos Filho, L. 1945. Tecnicas generais no estudio da orden (Mantodea) Burmeister, 1838. *Arquivos Zoologicos do Estado do Sao Paulo* 4: 113-155.

Wang, T. 1993. Synopsis on the classification of Mantodea from China. Shanghai Scientific and Technological, Literature Publishing House, pp. 176.

Ware, J.L., Litman, J., Klass, K.D. and Spearman, L.A. 2008. Relationships among the major lineages of Dictyoptera: The effect of outgroup selection on dictyopteran tree topology. *Systematic Entomology*, 33(3): 429-450.

Westwood, J.O. 1889. Revisio Insectorum Familiae Mantidarum, speciebus novis aut minus cognitis descriptis et delineatis. *Revisio Mantidarum, Gurney and Jackson, London, United Kingdom*. pp. 53.

Wieland, F. 2013. The phylogenetic system of Mantodea (Insecta: Dictyoptera). *Species, Phylogeny & Evolution,* 3(1): 3–222.

****