

## **Updated Checklist and Global Diversity of Chaeteessidae, Mantoididae, Metallyticidae, Acanthopidae, Amorphoscelididae and Sibyllidae (Mantodea: Insecta)**

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**Abstract:** The praying mantids (Order Mantodea, Class Insecta) are a group of over 2500 carnivorous polyneopteran insects distributed in tropics and subtropics of the world, from the rainforest to the desert ground. The order Mantodea comprises over 20 families, out of which the global distribution of six families: Chaeteessidae, Mantoididae, Metallyticidae, Acanthopidae, Amorphoscelididae and Sibyllidae were provided in this compilation. Chaeteessidae includes just one extant genus with 6 species and Mantoididae comprises two genera with 12 species and both are distributed in Neotropical South America. Metallyticidae includes just one genus containing 5 species inhabiting in Southeast Asia. Acanthopidae, commonly known as dead-leaf mantids or boxer mantids, consists of 14 genera and 96 species and are exclusively distributed in Neotropics of South America. It includes 3 subfamilies, Acanthopinae (8 genera, 53 species), Acontistinae (5 genera, 40 species), and Stenophyllinae (1 genus, 3 species). Amorphoscelidae, commonly known as bark mantids, are includes three subfamilies, Amorphoscelinae (5 genera, 62 species), Paraoxypilinae (8 genera, 30 species), and Perlantinae (2 genera, 3 species) with 15 genera and 95 species/subspecies distributed in the Tropical and Southern regions of Africa over to the Middle East and the Oriental region, including New Guinea. Sibyllidae is exclusively African family including only three genera and 17 species.

**Keywords:** Chaeteessidae, Mantoididae, Metallyticidae, Acanthopidae, Amorphoscelididae, Sibyllidae, world distribution, praying mantis, checklist.

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### **1. INTRODUCTION**

The praying mantids belong to the order Mantodea which is often considered as minor order of class Insecta as it constitutes a group of over only 2500 species [1]. Mostly, mantids are skilled opportunistic ambush predators, remain stationary until suitable prey passes at which point they use their raptorial forelegs to catch their prey. However, some species are actively stalk cryptic conspecifics [2]. Although they usually prey on other insects, they are known to occasionally take small vertebrates such as lizards, frogs and hummingbirds [3]. Because of their efficient hunting techniques, they play a vital role in the natural control of insect pests [4]. They are predatory mostly inhabiting in tropical and subtropical habitats of the world, from the highly humid rainforest to the desert ground [5-10]. Its phylogeny was discussed by many workers in past [11-15].

Over the last 100 years there have been several publications on the Mantodea of the world [16-29], however, the most recent papers were published after eighties of twentieth century and since then there have been numerous changes to the nomenclature even at suprageneric levels because of complexity and plasticity of their external morphology that create major obstacles for recognising natural groups [11, 12, 30-36].

Presently, the order Mantodea comprises over 20 families, out of which the family Mantidae alone includes 1255 species/subspecies described under 188 genera included in 21 subfamilies [37]. This paper the world mantids of six families, viz. Chaeteessidae, Mantoididae, Metallyticidae, Acanthopidae, Amorphoscelidae, and Sibyllidae are catalogued.

Chaeteessidae and Mantoididae include small, stout-built, very active species from tropical areas of South, Central and southern North America and unlike most mantids, they are active hunters that chase their prey [38]. This behaviour, along with their plesiomorphic morphology, they are considered as two of the basal-most extant taxa in Mantodea [12, 39-42]. Chaeteessidae includes just one extant genus: *Chaeteessa* Burmeister, 1838 with six species and Mantoididae comprises two genera:

*Mantoida* Newman, 1838 with 11 species and *Paramantoida* Agudelo, 2014 with one species. These genera have never been reviewed taxonomically and the current taxonomic literature allows the identification of only a handful of species. They are distributed only in South and Central America [43-46].

Like above two families, Metallyticidae includes just one genus, *Metallyticus* Westwood, 1835 which is one of the most fascinating praying mantids but little is known of its biology [38, 47]. It comprises only five species. *Metallyticus* is restricted to the Oriental region [25, 29, 33]. Most of the specimens collected in the more than 170 years since the description of the genus were found throughout the Malayan and Indonesian regions.

Acanthopidae, commonly known as dead-leaf mantids or boxer mantids is relatively large group, consists of 14 genera and 96 species and are exclusively distributed in neotropical ecozone of America. They are mostly dead-leaf mimics and the females hang upside down from twigs and branches resembling dry, curled leafs [48-50]. In Acanthopidae, three subfamilies are included: Acanthopinae (8 genera, 53 species), Acontistinae (5 genera, 40 species), and Stenophyllinae (1 genus, 3 species). However, considering the morphological diversity among these three lineages and the lack of definite autopomorphies [13], including these taxa as members of a single family is suspect [15]. Acanthopinae includes some of the most cryptic and bizarre-looking mantids of the neotropics [51]. The Acanthopidae are widely distributed from central Mexico south to the Atlantic rainforest of southern Brazil [52-58].

The member of the family Amorphoscelidae, commonly known as bark mantids, are small to medium in size, mostly with cryptic colour of tree-bark and some mimic ants. They hunt on ground or on tree trunks. Usually females are apterous or brachypterous while males are fully winged. In most of them, sexual dimorphism is distinct. Amorphoscelidae includes three subfamilies: Amorphoscelinae (5 genera, 62 species), Paraoxypilinae (8 genera, 30 species), and Perlamantinae (2 genera, 3 species) with 15 genera and 95 species/subspecies. Most of the Amorphoscelinae are distributed in the Tropical and Southern regions of Africa over to the Middle East and the oriental region, including New Guinea. All members of Amorphoscelinae are very unique within the order Mantodea as they are characterized by the absence of any spination of the fore femora and fore tibiae [59-61], whereas, Paraoxypilinae are distributed in Australia and nearby. Stenophyllinae are small group of mantids distributed in Western Africa.

Sibyllidae is exclusively African family including only three genera and 17 species. They can be easily identified by having a long and thin prothorax with lateral and dorsal projections. The head bears an erect process with four sideways spikes. The taxonomy of Sibyllidae was thoroughly reviewed by Roy [62].

Most of the distributional records are scattered in literature [53]. The checklists of Mantodea of different countries/continents/ecozones are published in recent past by several authors [6, 10, 29, 33, 53, 63-76]. In the present compilation, only valid name of the species is presented after critical scrutiny of literature. Hence, the present article will help in solving an up-to-date listing of the mantid species of 6 families of Mantodea, viz. Chaeteessidae, Mantoididae, Metallyticidae, Acanthopidae, Amorphoscelididae and Sibyllidae. 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 25 October, 2016.

## 2. GLOBAL CHECK-LIST

Following is the checklist of the six families of Mantodea. Synonymy of the taxa were avoided and for that literature published in recent past may be consulted [6, 15, 33, 51-54, 61, 63, 66, 78-80].

### 1. Family: Chaeteessidae 1. Subfamily: Chaeteessinae 1. Genus: *Chaeteessa* Burmeister, 1838

1. *Chaeteessa burmeisteri* Giebel, 1862 [Brazil]
2. *Chaeteessa caudata* Saussure, 1871 [Brazil, Costa Rica, Venezuela]
3. *Chaeteessa filata* Burmeister, 1838 [Brazil, Surinam]
4. *Chaeteessa nana* Jantsch, 1995 [Brazil]
5. *Chaeteessa nigromarginata* Salazar, 2004 [Colombia]
6. *Chaeteessa valida* (Perty, 1833) [Brazil, Colombia, French Guiana]

**2. Family: Mantoididae**

**1. Subfamily: Mantoidinae**

**2. Genus: *Mantoida* Newman, 1838**

7. *Mantoida argentinae* La Greca, 1990 [Argentina]
8. *Mantoida beieri* Kaltenbach, 1957 [Argentina]
9. *Mantoida brunneriana* (Saussure, 1871) [Bolivia, Brazil, Colombia, French Guiana, Panama, Paraguay, Venezuela]
10. *Mantoida burmeisteri* (Giebel, 1862) [Brazil]
11. *Mantoida fulgidipennis* Westwood, 1889 [Brazil, Colombia, French Guiana, Surinam, Trinidad & Tobago, Venezuela]
12. *Mantoida maya* Saussure & Zehntner, 1894 [Brazil, Florida Keys-USA, Mexico, Panama, Venezuela]
13. *Mantoida nitida* Newman, 1838 [Argentina, Bolivia, Brazil, Mexico, Venezuela]
14. *Mantoida ronderosi* La Greca, 1990 [Argentina, Brazil]
15. *Mantoida schraderi* Rehn, 1951 [Costa Rica, Panama, Trinidad]
16. *Mantoida tenuis* (Perty, 1833) [Argentina, Brazil, Colombia, Paraguay, Uruguay]
17. *Mantoida toulgoeti* Roy, 2010 [Neotropic-South America]

**3. Genus: *Paramantoida* Agudelo, 2014**

18. *Paramantoida amazonica* Agudelo, 2014 [North Amazon-Brazil]

**3. Family: Metallyticidae**

**1. Subfamily: Metallyticinae**

**4. Genus: *Metallyticus* Westwood, 1835**

19. *Metallyticus fallax* Giglio-Tos, 1916 [Borneo, Sumatra]
20. *Metallyticus pallipes* Giglio-Tos, 1917 [Borneo]
21. *Metallyticus semiaeonus* Westwood, 1889 [Borneo]
22. *Metallyticus splendidus* Westwood, 1835 [Borneo, Java, India, Malasia, Moluccan Islands, Sarawak, Sumatra]
23. *Metallyticus violaceus* Burmeister, 1838 [Borneo, Java, India, Indonesia, Malasia, Myanmar, Philippines, Sumatra]

**4. Family: Acanthopidae**

**1. Subfamily: Acanthopinae**

**1. Tribe: Acanthopini**

**5. Genus: *Acanthops* Serville, 1831**

24. *Acanthops bidens* Hebard, 1922 [Colombia, Mexico]
25. *Acanthops boliviiana* Chopard, 1916 [Bolivia]
26. *Acanthops brunneri* Saussure, 1871 [Brazil, Colombia]
27. *Acanthops centralis* Lombardo & Ippolito, 2004 [Colombia, Costa Rica, Panama]
28. *Acanthops chocoensis* Salazar, 2005 [Colombia]
29. *Acanthops contorta* Gerstaecker, 1889 [Brazil, Peru]
30. *Acanthops elegans* Lombardo & Ippolito, 2004 [Costa Rica, Guatemala]
31. *Acanthops erosa* Serville, 1839 [Brazil, French Guiana]
32. *Acanthops erosula* Stal, 1877 [Bolivia, Brazil, Ecuador, Panama, Peru]
33. *Acanthops falcata* Stal, 1877 [Brazil, Colombia, Ecuador, Guiana, Mexico, Panama, Venezuela, Trinidad]
34. *Acanthops falcataria* (Goeze, 1778) [Brazil, East Africa]
35. *Acanthops fuscifolia* (Olivier, 1792) [Colombia, French Guiana, Guiana]
36. *Acanthops godmani* Saussure & Zehntner, 1894 [Colombia, Belize, Guatemala, Costa Rica, Mexico]
37. *Acanthops onorei* Lombardo & Ippolito, 2004 [Ecuador]
38. *Acanthops parafalcata* Lombardo & Ippolito, 2004 [Caribbean Islands, Trinidad & Tobago]
39. *Acanthops parva* Beier, 1941 [Brazil]
40. *Acanthops royi* Lombardo & Ippolito, 2004 [Ecuador]
41. *Acanthops soukana* Roy, 2002 [French Guiana]
42. *Acanthops tuberculata* Saussure, 1870 [Brazil, Colombia, French Guiana, Guina, Peru]

**6. Genus: *Astollia* Kirby, 1904**

43. *Astollia chloris* (Olivier, 1792) [Surinam]

**7. Genus: *Beieracanthops* Rafael, 2014**

44. *Beieracanthops amazonica* (Beier, 1930) [Brazil, French Guiana]  
45. *Beieracanthops rafaeli* Rafael, 2014 [Brazil]

**8. Genus: *Decimiana* Uvarov, 1940**

46. *Decimiana bolivari* (Chopard, 1916) [Brazil, Paraguay]  
47. *Decimiana clavata* Ippolito and Lombardo, 2004 [Brazil]  
48. *Decimiana hebardi* Lombardo, 2000 [Argentina, Bolivia, Brazil, Paraguay]  
49. *Decimiana rehni* (Chopard, 1913) [Argentina, Bolivia, Brazil, Paraguay]  
50. *Decimiana tessellata* (Charpentier, 1841) [Brazil, Argentina, Paraguay, Uruguay]  
51. *Decimiana elliptica* Menezes and Bravo, 2012 [Brazil]

**9. Genus: *Lagrecacanthops* Roy, 2004**

52. *Lagrecacanthops brasiliensis* Roy, 2004 [Brazil]  
53. *Lagrecacanthops guyanensis* Roy, 2004 [French Guiana]

**10. Genus: *Metilia* Stal, 1877**

54. *Metilia boliviensis* (Werner, 1927) [Bolivia]  
55. *Metilia brunnerii* (Saussure, 1871) [Bolivia, Brazil, Colombia, Costa Rica, Ecuador, French Guiana, Nicaragua, Peru, Surinam, Venezuela]  
56. *Metilia adusta* (Gerstaecker, 1889) [Costa Rica, Peru]  
57. *Metilia integra* Stål, 1877 [Brazil]  
58. *Metilia coloradensis* (Salazar, González & Miller, 2012) [Brazil, Colombia, French Guiana]  
59. *Metilia septemspinosa* (Ippolito, 2007) [Brazil, Ecuador]  
60. *Metilia caiua* Rafael, 2014 [Brazil, Colombia, French Guiana]  
61. *Metilia glabripennis* Rafael, 2014 [Brazil, French Guiana]  
62. *Metilia guttata* Rafael, 2014 [Brazil]  
63. *Metilia pinima* Rafael, 2014 [Peru, Venezuela]  
64. *Metilia vulgaris* Rafael, 2014 [Brazil, Peru]  
65. *Metilia yutoensis* Rafael, 2014 [Colombia]

**11. Genus: *Miracanthops* Roy, 2004**

66. *Miracanthops eseejja* Rivera, 2005 [Peru]  
67. *Miracanthops lombardoi* Roy, 2004 [Ecuador, Peru]  
68. *Miracanthops occidentalis* (Lombardo & Ippolito, 2004) [Ecuador, Peru]  
69. *Miracanthops poulaini* Roy, 2004 [Peru, Ecuador]

**12. Genus: *Pseudacanthops* Saussure, 1870**

70. *Pseudacanthops angulata* (Lichtenstein, 1802) [Surinam]  
71. *Pseudacanthops caelebs* (Saussure, 1869) [Bolivia, Belize, Brazil, Guatemala, Honduras, Mexico, Nicaragua, Venezuela]  
72. *Pseudacanthops lobipes* La Greca & Lombardo, 1997 [Bolivia]  
73. *Pseudacanthops spinulosa* Saussure, 1870 [Bolivia, Brazil, Colombia, Ecuador, French Guiana, English Guiana, Venezuela]  
74. *Pseudacanthops centralis* Lombardo, Ippolito & Rivera, 2013 [Nicaragua, Panama]  
75. *Pseudacanthops clorindae* Lombardo, Ippolito & Rivera, 2013 [Brazil, Peru]  
76. *Pseudacanthops huaoranianus* Lombardo, Ippolito & Rivera, 2013 [Equador]

**2. Subfamily: Acontistinae**

**1. Tribe: Acontistini**

**13. Genus: *Acontista* Saussure, 1842**

77. *Acontista amazonica* Beier, 1929 [Brazil]  
78. *Acontista amoenula* Gerstaecker, 1889 [Brazil, Peru]  
79. *Acontista aurantiaca* (Burmeister, 1838) [Paraguay]

80. *Acontista bolivari* Giglio-Tos, 1915 [Bolivia, Brazil]
81. *Acontista brevipennis* Saussure, 1872 [Argentina, Bolivia, Brazil, Paraguay]
82. *Acontista cayennensis* Saussure & Zehntner, 1894 [Brazil, French Guiana]
83. *Acontista championi* Kirby, 1904 [Brazil, Guatemala]
84. *Acontista chopardi* Giglio-Tos, 1927 [French Guiana]
85. *Acontista concinna* (Perty, 1833) [Argentina, Bolivia, Brazil, Colombia, Ecuador, Peru, Paraguay, French Guiana]
86. *Acontista cordillerae* (Saussure, 1869) [Brazil, Colombia, Costa Rica, French Guiana, Mexico, Panama, Surinam]
87. *Acontista cubana* De Zayas, 1974 [Cuba]
88. *Acontista ecuadorica* Hebard, 1924 [Ecuador]
89. *Acontista eximia* Pascoe, 1882 [Brazil, Panama]
90. *Acontista festae* Giglio-Tos, 1915 [Ecuador]
91. *Acontista fraterna* Saussure & Zehntner, 1894 [Costa Rica, Mexico]
92. *Acontista gracilis* Chopard, 1911 [French Guiana]
93. *Acontista inquinata* Saussure & Zehntner, 1894 [Mexico]
94. *Acontista iriodes* Hebard, 1919 [Colombia]
95. *Acontista maroniensis* Chopard, 1911 [Brazil, French Guiana]
96. *Acontista mexicana* (Saussure & Zehntner, 1871) [Brazil, Costa Rica, Guatemala, Mexico, Netherlands Antilles, Nicaragua, Panama]
97. *Acontista minima* Giglio-Tos, 1915 [Colombia, Trinidad]
98. *Acontista multicolor* (Saussure, 1870) [Argentina, Antilles, Colombia, Nicaragua, Trinidad & Tobago, Uruguay, Venezuela]
99. *Acontista parva* Beier, 1942 [Brazil]
100. *Acontista piracicabensis* Toledo Piza, 1967 [Brazil]
101. *Acontista rejni* Giglio-Tos, 1927 [Brazil, Costa Rica, Puerto Rico, Paraguay]
102. *Acontista semirufa* Westwood, 1889 [Brazil]
103. *Acontista vitrea* Saussure & Zehntner, 1894 [Brazil, Colombia, Costa Rica, Ecuador, Mexico, Panama]

**14. Genus: *Callibia* Stal, 1877**

104. *Callibia diana* (Stoll, 1813) [Bolivia, Brazil, Colombia, Ecuador, French Guiana, Peru, Venezuela]

**15. Genus: *Paratithrone* Lombardo, 1996**

105. *Paratithrone royi* Lombardo, 1995 [Brazil, Colombia, Ecuador, French Guiana]

**16. Genus: *Raptrix* Terra, 1995**

106. *Raptrix intermedia* Lombardo & Marletta, 2004 [Brazil, Ecuador, French Guiana]
107. *Raptrix occidentalis* Lombardo & Marletta, 2004 [Bolivia, Brazil, Ecuador, French Guiana, Peru]
108. *Raptrix perspicua* (Fabricius, 1787) [Brazil, Colombia, Ecuador, French Guiana, Surinam, Venezuela]
109. *Raptrix westwoodi* (Saussure & Zehntner, 1894) [Brazil, Colombia, Costa Rica]

**17. Genus: *Tithrone* Stal, 1877**

110. *Tithrone catharinensis* Toledo Piza, 1961 [Brazil]
111. *Tithrone clauseni* Jantsch, 1995 [Arizona-USA]
112. *Tithrone corseuli* Jantsch, 1986 [California-USA]
113. *Tithrone laeta* Lombardo, 1996 [Venezuela]
114. *Tithrone latipennis* Lombardo, 1996 [Colombia, Ecuador]
115. *Tithrone major* Toledo Piza, 1961 [Brazil]
116. *Tithrone roseipennis* (Saussure, 1870) [Brazil, Colombia, Costa Rica, French Guiana, Peru, Trinidad & Tobago, Venezuela]

**3. Subfamily: Stenophyllinae**

**1. Tribe: Stenophyllini**

**18. Genus: *Stenophylla* Westwood, 1845**

117. *Stenophylla cornigera* Westwood, 1843 [Brazil, Venezuela]
118. *Stenophylla gallardi* Roy, 2005 [French Guiana]
119. *Stenophylla lobivertex* Lombardo, 2000 [Amazonia, Colombia, Ecuador, Peru]

**5. Family: Amorphoscelididae****1. Subfamily: Amorphoscelinae****1. Tribe: Amorphoscelini****19. Genus: *Amorphoscelis* Stal, 1871**

120. *Amorphoscelis abyssinica* Giglio-Tos, 1913 [Ethiopia, Somalia, Tanzania]
121. *Amorphoscelis angolica* Beier, 1969 [Angola]
122. *Amorphoscelis annulicornis* Stal, 1871 [India-NE, Malaysia, Melaka, Nepal, Sri Lanka]
123. *Amorphoscelis asymmetrica* Ingrisch, 1999 [Yemen]
124. *Amorphoscelis austrogermanica* Werner, 1923 [Namibia, Natal, Transvaal, Tanzania]
125. *Amorphoscelis bimaculata* Roy, 2010 [Sabah]
126. *Amorphoscelis borneana* Giglio-Tos, 1914 [Malaysia, Borneo]
127. *Amorphoscelis brunneipennis* Beier, 1956 [India, Sri Lanka]
128. *Amorphoscelis chinensis* Tinkham, 1937 [China]
129. *Amorphoscelis chopardi* Roy, 1962 [Ivory Coast, Ghana]
130. *Amorphoscelis elegans* Giglio-Tos, 1914 [Ghana, Guinea]
131. *Amorphoscelis griffinii* Giglio-Tos, 1913 [Ivory Coast, Cameroon, Gabon]
132. *Amorphoscelis grisea* Bolivar, 1908 [Ivory Coast, Cameroon, Guinea, Congo, Gabon, Uganda]
133. *Amorphoscelis hainana* Yang, 2002 [China]
134. *Amorphoscelis hamata* Roy, 2009 [Kenya]
135. *Amorphoscelis huismani* Roy, 2010 [Sabah]
136. *Amorphoscelis javana* Roy, 1966 [Java]
137. *Amorphoscelis kenyensis* Stiewe, 2009 [Kenya, Somalia]
138. *Amorphoscelis lamottei* Roy, 1963 [Congo, Gabon, Ghana, Guinea, Ivory Coast, Tanzania, Uganda]
139. *Amorphoscelis laxeretis* Karsch, 1894 [Congo, Gabon, Ghana, Ivory Coast, Sierra Leone]
140. *Amorphoscelis machadoi* Beier, 1969 [Angola]
141. *Amorphoscelis morini* Roy, 2013 [Congo]
142. *Amorphoscelis naumanni* Kaltenbach, 1983 [Afghanistan]
143. *Amorphoscelis nigriventer* Beier, 1930 [Ivory Coast, Guinea, Ghana]
144. *Amorphoscelis nubeculosa* Werner, 1908 [Cameroon]
145. *Amorphoscelis opaca* Bolivar, 1908 [Cameroon]
146. *Amorphoscelis orientalis* Giglio-Tos, 1914 [Kenya, Somalia, Tanzania]
147. *Amorphoscelis pallida* Giglio-Tos, 1914 [Cameroon, Kenya, Nigeria]
148. *Amorphoscelis pantherina* Roy, 1966 [Iraq, Turkey]
149. *Amorphoscelis papua* Werner, 1923 [Indonesia, New Guinea]
150. *Amorphoscelis parva* Beier, 1952 [Sumba]
151. *Amorphoscelis pellucida* Westwood, 1889 [Australia, Java, Singapur, Sri Lanka]
152. *Amorphoscelis phaesoma* Yang, 1999 [China]
153. *Amorphoscelis philippina* Werner, 1926 [Philippines]
154. *Amorphoscelis pinheyi* Roy, 2007 [Mozambique]
155. *Amorphoscelis pulchella* Giglio-Tos, 1914 [Angola, Congo, Kenya, Tanzania, Uganda, Zimbabwe]
156. *Amorphoscelis pulchra* Bolivar, 1908 [Congo, Ivory Coast, Gabon, Ghana, Cameroon, Sierra Leone, Uganda]
157. *Amorphoscelis punctata* Roy, 1962 [Ethiopia, Eritrea]
158. *Amorphoscelis reticulata* Werner, 1933 [Sarawak-Borneo]
159. *Amorphoscelis rufula* Roy, 1966 [Borneo, Malaysia]
160. *Amorphoscelis siebersi* Werner, 1933 [Borneo]
161. *Amorphoscelis singaporana* Giglio-Tos, 1915 [India, Borneo, Cambodia, Java, Singapore, Sumatra, Thailand, Vietnam]
162. *Amorphoscelis spinosa* Beier, 1942 [Sri Lanka]
163. *Amorphoscelis stellulatha* Yang, 1999 [China]
164. *Amorphoscelis subnigra* Werner, 1933 [Borneo]
165. *Amorphoscelis sulawesiana* Roy, 2010 [Sulawesi Tengah]
166. *Amorphoscelis sumatrana* Roy, 2010 [Malaysia, Sumatra]

167. *Amorphoscelis tigrina* Giglio-Tos, 1914 [Benin, Guinea, Cameroon, Nigeria, Senegal, Ivory Coast, Burkina Faso, Sudan]
168. *Amorphoscelis tuberculata* Roy, 1963 [Malawi, Mozambique, Namibia, Tanzania, Transvaal, Zimbabwe]
169. *Amorphoscelis villiersi* Roy, 1984 Congo

**20. Genus: *Bolivaroscelis* Roy, 1973**

170. *Bolivaroscelis bolivarii* (Giglio-Tos, 1913) [Cameroon, Congo, Gabon]
171. *Bolivaroscelis carinata* (Bolivar, 1908) [Cameroon, Gabon]
172. *Bolivaroscelis wernerii* (Roy, 1962) [Cameroon, Ghana]

**21. Genus: *Caudatoscelis* Roy, 1973**

173. *Caudatoscelis annulipes* (Karsch, 1892) [Bioko, Congo, Ghana]
174. *Caudatoscelis caudata* (Giglio-Tos, 1914) [Congo, Gabon]
175. *Caudatoscelis collarti* (Roy, 1964) [Congo, Ghana, Uganda]
176. *Caudatoscelis lagreciae* (Roy, 1964) [Ghana, Nigeria]
177. *Caudatoscelis marmorata* (Roy, 1965) [Ghana, Ivory Coast, Nigeria]

**22. Genus: *Gigliotoscelis* Roy, 1973**

178. *Gigliotoscelis simulans* (Giglio-Tos, 1913) [Ghana, Guinea, Congo, Cameroon, Ivory Coast, Gabon, Togo]

**23. Genus: *Maculatoscelis* Roy, 1973**

179. *Maculatoscelis ascalaphoides* (Bolivar, 1908) [Angola, Ghana, Guinea, Cameroon, Congo, Tanzania]
180. *Maculatoscelis gilloni* (Roy, 1964) [Ivory Coast]
181. *Maculatoscelis maculata* (Roy, 1965) [Ivory Coast, Ghana]

**2. Subfamily: Paraoxypilinae**

**1. Tribe: Paraoxypilini**

**24. Genus: *Cliomantis* Giglio-Tos, 1913**

182. *Cliomantis cornuta* Giglio-Tos, 1913 [Australia]
183. *Cliomantis dispar* Tindale, 1923 [Australia]
184. *Cliomantis lateralis* Hinton, 1939 [Queensland]
185. *Cliomantis obscura* Hinton, 1939 [Queensland]

**25. Genus: *Eparoxypilus* Beier, 1929**

186. *Eparoxypilus africanus* Beier, 1929 [Zanzibar]

**26. Genus: *Gyromantis* Giglio-Tos, 1913**

187. *Gyromantis kraussii* (Saussure, 1872) [Australia, Neuhammad]
188. *Gyromantis occidentalis* Sjostedt, 1918 [Northwest Australia]

**27. Genus: *Metoxyptilus* Giglio-Tos, 1913**

189. *Metoxyptilus costalis* (Westwood, 1889) [New Guinea]
190. *Metoxyptilus lobifrons* (Stål, 1877) [Queensland]
191. *Metoxyptilus wernerii* Beier, 1929 [Kai Islands]

**28. Genus: *Myrmecomantis* Giglio-Tos, 1913**

192. *Myrmecomantis atra* Giglio-Tos, 1913 [Queensland]

**29. Genus: *Nesoxyptilus* Beier, 1965**

193. *Nesoxyptilus albomaculatus* (Werner, 1933) [Australia]
194. *Nesoxyptilus pseudomyrmex* Milledge, 1990 [Australia]

**30. Genus: *Paraoxypilus* Saussure, 1870**

195. *Paraoxypilus armatus* Giglio-Tos, 1913 [Thursday Island-Queensland]
196. *Paraoxypilus distinctus* Beier, 1929 [Australia]

197. *Paraoxypilus flavifemur* Sjostedt, 1918 [Queensland]
198. *Paraoxypilus insularis* Tindale, 1923 [Australia]
199. *Paraoxypilus kimberleyensis* Sjostedt, 1918 [Australia]
200. *Paraoxypilus laticollis* Tindale, 1923 [Australia]
201. *Paraoxypilus tasmaniensis* Saussure, 1870 [Tasmania]
202. *Paraoxypilus verreauxii* Saussure, 1870 [Tasmania]

### 31. Genus: *Phthersigena* Stal, 1871

203. *Phthersigena centralis* Giglio-Tos, 1915 [Australia]
204. *Phthersigena conspersa* Stal, 1871 [Australia, New Guinea]
205. *Phthersigena insularis* Beier, 1965 [Australia]
206. *Phthersigena melania* (Tindale, 1923) [Australia]
207. *Phthersigena minor* Sjostedt, 1918 [Australia]
208. *Phthersigena nebulosa* (Sjostedt, 1918) [Australia]
209. *Phthersigena pallidifemur* Tindale, 1923 [Australia]
210. *Phthersigena timorensis* Beier, 1952 [Timor]
211. *Phthersigena unicornis* (Tindale, 1923) [Australia]

#### 3. Subfamily: Perlmantinae

##### 1. Tribe: Perlmantini

### 32. Genus: *Paramorphoscelis* Werner, 1907

212. *Paramorphoscelis gondokorensis* Werner, 1907 [Angola, Burkina Faso, Ghana, Guinea, Nigeria, Senegal, Sudan, Uganda]

### 33. Genus: *Perlantis* Guerin-Meneville, 1843

213. *Perlantis algerica* Giglio-Tos, 1914 [Algeria]
214. *Perlantis allibertii* Guerin-Meneville, 1843 [France, Spain, Algeria, Morocco, Libea, Tunisia]

#### 6. Family: Sibyllidae

##### 1. Subfamily: Sibyllinae

##### 1. Tribe: Sibyllini

### 34. Genus: *Leptosibylla* Roy, 1996

215. *Leptosibylla gracilis* Roy, 1996 [Cameroon, Central Africa Republic]

### 35. Genus: *Presibylla* Bolivar, 1908

216. *Presibylla elegans* (Bolivar, 1908) [Cameroon, Congo, Gabon]
217. *Presibylla speciosa* Roy, 1996 [Cameroon, Nigeria]

### 36. Genus: *Sibylla* Stål, 1856

218. *Sibylla (Sibylla) dives* Giglio-Tos, 1915 [Angola, Congo, Tanzania, Uganda, Malawi, Zambia, Zimbabwe]
219. *Sibylla (Sibylla) dolosa* Roy, 1975 [Ghana]
220. *Sibylla (Sibylla) gratiosa* Rehn, 1912 [Congo, Ivory Coast, Guinea, Gabon, Ghana]
221. *Sibylla (Sibylla) limbata* Giglio-Tos, 1915 [Cameroon, Congo, Gabon, Ivory Coast, Ghana]
222. *Sibylla (Sibylla) maculosa* Roy, 1996 [Cameroon, Congo, Gabon]
223. *Sibylla (Sibylla) marmorata* Roy, 1996 [Cameroon, Republic of Central Africa]
224. *Sibylla (Sibylla) polyacantha* Gerstaecker, 1889 [Congo]
225. *Sibylla (Sibylla) pretiosa* Stål, 1856 [Abyssinia, Ethiopia, Kenya, Tanzania, Uganda, Malawi, Somalia, Zambia, Namibia, Republic South Africa, Swaziland, Cameroon, Congo, Zimbabwe]
226. *Sibylla (Sibyllopsis) griffinii* griffinii Giglio-Tos, 1915 [Benin, Cameroon, Ivory Coast, Gabon, Ghana, Guinea, Nigeria, Togo]
227. *Sibylla (Sibyllopsis) griffinii guineensis* Roy, 1965 [Guinea, Ivory Coast, Liberia, Syria]
228. *Sibylla (Sibyllopsis) operosa* Roy, 1996 [Syria, Liberia, Guinea, Ghana, Nigeria, Ivory Coast]
229. *Sibylla (Sibyllopsis) pannulata* Karsch, 1894 [Cameroon, Congo, Gabon, Guinea, Nigeria, Republic Central Africa, Zaire]
230. *Sibylla (Sibyllopsis) punctata* Roy, 1996 [Cameroon, Republic Central Africa, Zaire]
231. *Sibylla (Sibyllopsis) vanderplaetensi* Roy, 1963 [Congo, Gabon, Ghana, Cameroon, Guinea, Ivory Coast, Republic of Central Africa]

### **3. CONCLUSION**

The distribution pattern of six families of Mantodea: Chaeteessidae, Mantoididae, Metallyticidae, Acanthopidae, Amorphoscelididae and Sibyllidae demonstrated that most of the species belongs to Neotropical ecozone of the world, i.e. countries of Central and South America; and Africa and South-East Asia. Out of 231 valid species of these families, only 5 belong to India while 67 belong to Brazil.

### **REFERENCES**

- [1] Otte, D., Spearman, L. and Stiewe, M.B.D., Mantodea Species File Online. Version 5.0/5.0. [retrieved on 15.10.2016] . <http://Mantodea.SpeciesFile.org> (2016).
- [2] Prete, F.R. and Mahaffey, R.J., Appetitive responses to computer-generated visual stimuli by the praying mantis *Sphodromantis lineola* (Burr.). *Visual Neurosci.* 10(4), 669–679 (1993).
- [3] Prete, F.R. and Wolfe, M.M., Religious supplicant, seductive cannibal, or reflex machine? In search of the praying mantis. *J. Hist. Biol.* 25, 91–136 (1992).
- [4] Sampaio, M.V., Bueno, V.H.P., Silveira, L.C.P. and Auad, A.M., Biological control of insect pests in the Tropics. *Encyclopedia of Life Support Systems (EOLSS)*. Oxford: EOLSS Publishers (2008).
- [5] Wang, T., Synopsis on the classification of Mantodea from China. Shanghai Scientific and Technological, Literature Publishing House, Shanghai, pp. 176 (1993).
- [6] Kaltenbach, A.P., Unterlagen für eine Monographie der Mantodea des südlichen Afrika: 1. Artenbestand, geographische Verbreitung und Ausbreitungsgrenzen (Insecta: Mantodea). *Ann. Naturhist. Mus. Wien* 98 B, 193–346 (1996).
- [7] Klass, K.-D. and Ehrmann, R., 13. Ordnung Mantodea, Fangschrecken, Gottesanbeterinnen. In: Dathe, H. H. (ed.): *Lehrbuch der Speziellen Zoologie*, Band I: Wirbellose Tier, 5. Teil: Insecta. Heidelberg, Berlin (Spektrum Akademischer Verlag), pp. 182–197 (2003).
- [8] Rivera, J., A historical review of praying mantid taxonomy and systematics in the Neotropical Region: State of knowledge and recent advances (Insecta: Mantodea). *Zootaxa* 2638, 44–64 (2010).
- [9] Schwarz, C.J. and Konopik, O., An annotated checklist of the praying mantises (Mantodea) of Borneo, including the results of the 2008 scientific expedition to Lanjak Entimau Wildlife Sanctuary, Sarawak. *Zootaxa* 3797, 130–168 (2014).
- [10] Shcherbakov, E.O. and Savitsky, V.Yu., New data on the fauna, taxonomy and ecology of praying mantises (Dictyoptera, Mantodea) from Russia. *Ent. Rev.* 95(2), 181–199 (2015).
- [11] Svenson, G.J. and Whiting, M.F., Phylogeny of Mantodea based on molecular data: evolution of a charismatic predator. *Syst. Ent.* 29, 359–370 (2004).
- [12] Wieland, F., Ph. D. thesis, University of Göttingen, Germany, pp. 306+Appendix pp. 29 (2010).
- [13] Wieland, F., The phylogenetic system of Mantodea (Insecta: Dictyoptera). *Species, Phylogeny and Evol.* 3(1), 3–222 (2013).
- [14] Legendre, F., Nel, A., Svenson, G.J., Robillard, T., Pellens, R. and Grandcolas, F., 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 (2015).
- [15] Rivera, J. and Svenson, G.J., The Neotropical ‘polymorphic earless praying mantises’ – Part I: molecular phylogeny and revised higher-level systematics (Insecta: Mantodea, Acanthopoidea). *Syst. Ent.* 41, 607–649. DOI: 10.1111/syen.12178 (2016).
- [16] Serville, J.G.A., Revue méthodique des Insectes de l'ordre des Orthoptères. *Ann. Sci. Nat.* 22, 28–65 (1831).
- [17] Burmeister, H.C., *Handbuch der Entomologie. Fangschrecken, Mantodea*. Handbuch der Entomologie, Vol. 2, v–viii. Theodor Christian Friedrich Enslin, Berlin, (1838).
- [18] De Haan, W., Bijdragen tot de Kennis der Orthoptera Zoologie. Verhandel. Natuurl. Gesch. Overzee. Bezittingen 2, 45–248 (1842).
- [19] de Saussure, H., Essai d'un système des Mantides. *Mitt. Schweiz. Ent. Gesell.* 3, 49–73 (1869).
- [20] de Saussure, H., Additions au système des Mantides. *Mitt. Schweiz. Ent. Gesell.* 3, 221–244 (1870).

- [21] Stål, C., Recherches sur le système des Mantides. *Bihang till Kongliga Svenska Vetenskaps-Akademiens Handlingar* 1, 1–26 (1873).
- [22] Stål, C., Systema mantodeorum. Essai d'une systematization nouvelle des Mantodées. *Bihang till Kongliga Svenska Vetenskaps-Akademiens Handlingar* 4, 1–91 (1877).
- [23] Kirby, W.F., A Synonymic Catalogue of Orthoptera (Forficulidae, Hemimeridae, Blattidae, Mantidae and Phasmidae). *British Mus., Nat. Hist.*, London 1, 1–10 (1904).
- [24] Giglio-Tos, E., Saggio di una nuova classificazione dei Mantidi. *Bull. Soc. Ent. Ital.* 49, 50–87 (1919).
- [25] Giglio-Tos, E., Orthoptera Mantidae. *Das Tierreich* 50. Berlin and Leipzig: Walter de Gruyter and Co., pp. 707 (1927).
- [26] Handlirsch, A., Mantodea. *Handbuch der Entomologie. Geschichte, Literatur, Technik, Paläontol., hylogen.* Syst. 3(4–8), 493–502 (1925).
- [27] Chopard, L., Ordre des Dictyoptères. Sous-Ordre des Mantodea Burmeister, 1838. *Traité Zool. Anat. System. Biol.* 9, 386–407 (1949).
- [28] Beier, M., Blattopteroidea-mantodea. *Bronn's Klassen und Ordnungen des Tierreichs*, Vol. 5 Insecta-Arthropoda, Part III, Book 5, No. 5 (ed. by H.G. Bronn), Akademische Verlagsgesellschaft Geest and Portig, Leipzig, pp. 850–970 (1964).
- [29] Beier, M., Mantodea (Fangheuschrecken). *Handbuch der Zoologie* (ed. by J. G. Helmcke, D. Starck and H. Wermuth), Vol. 4(2) 2/12, pp. 1–47. Walter de Gruyter and Co, Berlin. (1968).
- [30] Roy, R., General observations on the systematics of Mantodea. *Evolutionary Biology of Orthopteroid Insects* (ed. by B. Baccetti), Halsted Press, John Wiley and Sons, New York, New York, pp. 489–495 (1987).
- [31] Roy, R., Morphology and taxonomy. *The Praying Mantids* (ed. by F.R. Prete, H. Wells, P.H. Wells and L.E. Hurd). The Johns Hopkins University Press, Baltimore, Maryland and London, pp. 19–40 (1999).
- [32] Ehrmann, R., Systematik der Ordnung Mantoptera (Mantodea) (Insecta: Dictyoptera). Arthropoda 5, 6–12 (1997).
- [33] Ehrmann, R., Mantodea Gottesanbeterinnen der Welt. Münster: Natur und Tier-Verlag, pp. 519 (2002).
- [34] Otte D. and Spearman L., *Mantid Species File. Catalog of the Mantids of the World*. Insect Diversity Association, Publication No. 1, pp. 489 (2005).
- [35] Svenson, G.J., Hardy, N.B., Cahill Wightman, H.M. and Wieland, F., On flowers and twigs: phylogenetic revision of the plant-mimicking praying mantises (Mantodea: Empusidae and Hymenopodidae) with a new generic classification. *Syst. Ent.* 40, 789–834 (2015).
- [36] Svenson, G.J., Medellín, C. and Sarmiento, C., Re-evolution of a morphological precursor of crypsis investment in the newly revised horned praying mantises (Insecta, Mantodea, Vatinae). *Syst. Ent.* 41, 229–255 (2016).
- [37] Patel, S. and Singh, R., Updated Checklist and Distribution of Mantidae (Mantodea : Insecta) of the World. *Internat. J. Res. St. Zool. (IJRSZ)* 2(4), 1–46 (2016).
- [38] Salazar, J.A., Notas sobre *Metallyticus* Westwood, 1837; *Chaeteessa* Burmeister, 1838 y *Mantoida* Newman, 1838. Tres géneros primitivos de mantidos tropicales (Dictyoptera: Mantodea). *Lambillionea* 2, 265–276 (2005).
- [39] Grimaldi, D.A., A revision of Cretaceous mantises and their relationships, including new taxa (Insecta: Dictyoptera: Mantodea). *Amer. Mus. Novit.* 3412, 1–47 (2003).
- [40] Zherikhin V.V., Order Mantida Latreille, 1802. The mantises (=Mantodea Burmeister, 1838). In: Rasnitsyn A.P. and Quicke D.L.J. (Eds.): *History of Insects*. Kluwer, Dodrecht, 273–276 (2002).
- [41] Svenson, G.J. and Whiting, M.F., Reconstructing the origins of praying mantises (Dictyoptera, Mantodea): The roles of Gondwanan vicariance and morphological convergence. *Cladistics* 25(5), 468–514 (2009).
- [42] Grimaldi, D.A. and Engel, M.S., *Evolution of the Insects*. Cambridge University Press, New York, 784 pp. (2005).

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- [43] La Greca, M. and Lombardo, F., Mantodei Neotropicali. I. Il genere *Mantoida* descrizione di due nuove specie. *Animalia* 16, 55–67 (1989).
- [44] Roy, R., Contribution à la connaissance du genre néotropical *Mantoida* Newman, 1838 (Dict., Mantoididae). *Bull. Soc. Ent. Fr.* 115(1), 22 (2010).
- [45] Wieland, F. and Schütte, K., Unrecognized museum specimen expands distribution of *Mantoida* (Insecta: Mantodea) into the central Caribbean. *Ent. Itteil. Zool. Mus. Hamburg* 15(186), 305–314 (2011).
- [46] Agudelo, R.A.A., A new genus and species of Mantoididae (Mantodea) from the Brazilian and Venezuelan Amazon, with remarks on Mantoida Newman, 1838. *Zootaxa* (3797), 194–206. doi: 10.11646/zootaxa.3797.1.14. (2014)
- [47] Wieland, F., The genus *Metallyticus* reviewed (Insecta: Mantodea). *Species, Phylogeny and Evolution* 1(3), 147–170 (2008).
- [48] Robinson, M.H., Defenses against visually hunting predators. *Evolutionary Biology*, Vol. III (ed. by T. Dobzhansky, M.K. Hecht and W.C. Steere), Meredith Corp, New York, New York, pp. 225–259 (1969).
- [49] Robinson, M.H. and Robinson, B., By dawn's early light: matutinal mating and sex attractants in a Neotropical mantid. *Science* 205, 825–827 (1979).
- [50] Edmunds, M. and Brunner, D., Ethology of defenses against predators. *The Praying Mantids* (ed. by F.R. Prete, H. Wells, P.H. Wells and L.E. Hurd), The Johns Hopkins University Press, Baltimore, Maryland and London, pp. 276–299 (1999).
- [51] Agudelo, R.A.A., Lombardo, F. and Jantsch, L.J., Checklist of the Neotropical mantids (Insecta, Dictyoptera, Mantodea), *Biota Colombiana* 8 (2), 105–158 (2007).
- [52] Lombardo, F., A review of the genus *Decimiana* Uvarov, 1940 (Insecta: Mantodea), with description of a new species. *Proc. Acad. Nat. Sci. Philad.* 150, 159–171 (2000).
- [53] Agudelo, R.A.A., Lombardo, F. and Jantsch, L.J., Checklist of the neotropical mantids (Insecta, Dictyoptera, Mantodea). *Biota Colombiana* 8, 105–158 (2007).
- [54] Lombardo, F. and Ippolito, S., Revision of the species of *Acanthops* Serville, 1831 (Mantodea, Mantidae, Acanthopinae) with comments on their Phylogeny. *Ann. Ent. Soc. Amer.* 97, 1076–1102 (2004).
- [55] Roy, R., *Lagrecacanthops* et *Miracanthops*, deux nouveaux genres d'Acanthopinae (Dictyoptera, Mantodea, Acanthopidae). *Bull. Soc. Ent. France*, 109, 491–498 (2004).
- [56] Menezes, E.d.C. and Bravo, F., A new species of *Margaromantis* Piza, 1982 (Insecta: Mantodea) from Brazil. *Biodiver. Data J.* 3, 1–9 (2015).
- [57] Lombardo, F., Ippolito, S. and Rivera, J., Synopsis of the Neotropical mantid genus *Pseudacanthops* Saussure, 1870, with the description of three new species (Mantodea: Acanthopidae). *Rev. Suis. Zool.* 120, 373–403 (2013).
- [58] Arteaga, B.L.A., Parra, G.A.C., Medellín, R.M.C., Martínez, H.N.J., Mantidofauna (Insecta : Mantodea ) en fragmentos de Bosque seco Tropical (BS-T) en el Departamento del Atlántico (Colombia). *Bol. Cient. Mus. Hist. Nat.* 18 (2), 243–262 (2014).
- [59] Esteves, L. and Mendes, L.F., Mantodea do Centro de Zoologia I.- Amorphoscelidae. Garcia de Orta, Sér. Zool. 23 (1), 93–97, (1999)
- [60] Roy, R., Une nouvelle espèce africaine d'*Amorphoscelis* Stål, 1871 (Dictyoptera Mantodea). *Bull. Soc. Ent. France* 112 (3), 387–388 (2007).
- [61] Roy, R. and Stiewe, M.B.D. (2009). Contribution to the knowledge of Eastern African *Amorphoscelis* Stål, 1871, (Dictyoptera, Mantodea, Amorphoscelidae) with description of two new species. *Bulletin de la Société entomologique de France*, 114 (2), 2009 : 195–209.
- [62] Roy, R., Révision des Sibyllinae (Mantodea). *Bull. Mus. Nat. Hist. Nat.*, Paris 4e ser. 18, Section A, nos 1-2, 69–138 (1996).
- [63] Mukherjee, T.K., Ehrmann, R. and Chatterjee, P., Checklist of Mantodea (Insecta) from India. - Priamus (Serial Publication of the Centre for Entomological Studies Ankara), (Suppl.) 30, 1–61 (2014).

- [64] Ehrmann, R. & Borer, M. (2015). Mantodea (Insecta) of Nepal: an annotated checklist. In Hartmann, M. & J. Weipert: Biodiversität & Naturausstattung im Himalaya, Bd. Vietnam, pp. 227-274.
- [65] Agudelo, R.A.A., Mántidos de Colombia (Dictyoptera: Mantodea). In: Fernández C, Gonzalo Andrade-C FM, Amat GGD (Eds) Insectos de Colombia. Universidad Nacional, Facultad de Ciencias, Bogota, pp. 43–60 (2004).
- [66] Ehrmann, R., Mantodea from Turkey and Cyprus (Dictyoptera: Mantodea), Articulata 26(1), 1-42 (2011).
- [67] Paulian, R., Faune de Madagascar. V. Insectes Mantodea. Publications de l’Institut de Recherche Scientifique Tananarive – Tsimbazaza 5, 1–102 (1957).
- [68] Ragge, D.R. and Roy, R., A review of praying mantises of Ghana (Dictyoptera, Mantodea). Bull. l'Inst. Fond. d'Afriq. Noire (IFAN) Série A 29(2), 586–644 (1967).
- [69] Beier, M., Mantodea. Subfamilie: Hymenopodidae. Genera Insectorum, Fasc. 196 (ed. by P. Wytsman), pp. 1–37 (1934).
- [70] Beier, M., Mantodea. Subfamilie: Thespidae. Genera Insectorum, Fasc. 200 (ed. by P. Wytsman), pp. 1–32 (1935).
- [71] Beier, M. Mantodea. Subfamilie: Mantinae. Genera Insectorum, Fasc. 203 (ed. by P. Wytsman), pp. 1–146 (1935).
- [72] Beier, M., Blattopteroidea-mantodea. Bronn’s Klassen und Ordnungen des Tierreichs, Vol. 5 Insecta-Arthropoda, Part III, Book 5, No. 5 (ed. by H.G. Bronn), Akademische Verlagsgesellschaft Geest and Portig, Leipzig, pp. 850–970 (1964).
- [73] Beier, M., Insects of Micronesia, Mantodea. Insects Micronesia 5(2), 173–175 (1972).
- [74] Roy, R. and Svenson, G., Revision of the genus *Ceratomantis* Wood-Mason, 1876 (Dictyoptera: Mantidae). Bull. Soc. Ent. Fr. 112(4), 433-444 (2007).
- [75] Lombardo, F. and Agabiti, B., The mantids of Ecuador, with some biogeographic considerations. J. Orthoptera Res. 10, 89–104 (2001).
- [76] Salazar, J.A., Liste de los Mantodea conocidos para Colombia (Insecta). Biota Colomb. 3(1), 119–130 (2002).
- [77] Rivera, J., Apuntes sobre algunas especies de Photininae de Perú, incluyendo la descripción de una nueva especie de *Orthoderella* Giglio-Tos, 1897 (Dictyoptera: Mantodea: Mantidae). Rev. Peru. Ent. 43, 7–12 (2003).
- [78] Roy, R., 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 (2014).
- [79] Agudelo, A.A. and Rivera, J., Some taxonomic and nomenclatural changes in American Mantodea (Insecta, Dictyoptera), Part I. Zootaxa 3936 (3), 335–356 (2015).
- [80] Maldaner, C., Revisão taxonômica de Metilia Stål, 1877 (Mantodea: Acanthopidae) e descrição de um gênero novo. Dissertação (Mestrado), INPA, Manaus, pp. 115 (2014).

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