



## Classification of the Afrotropical butterflies to generic level

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**Abstract:** This paper applies the findings of phylogenetic studies on butterflies (Papilionoidea) in order to present an up to date classification of the Afrotropical butterflies to genus level. The classification for Afrotropical butterflies is placed within a worldwide context to subtribal level. Taxa that still require interrogation are highlighted. Hopefully this classification will provide a stable context for researchers working on Afrotropical butterflies.

**Key words:** Lepidoptera, Papilionoidea, Afrotropical butterflies, classification.

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### INTRODUCTION

Natural classifications of biological organisms, based on robust phylogenetic hypotheses, are needed before meaningful studies can be conducted in regard to their evolution, biogeography, ecology and conservation. Classifications, dating from the time of Linnaeus in the mid seventeen hundreds, were based on morphology for nearly two hundred and fifty years. Classifications based on phylogenies derived from an interrogation of the genome of individual organisms began in the late 20<sup>th</sup> century. In less than 50 years an increasing number of progressively more sophisticated studies, some incorporating both morphology and molecules, have produced robust phylogenies for many taxa in the order Lepidoptera. Perhaps the most exciting recent development is the placement of the “butterfly” superfamilies Papilionoidea, Hesperioidea and Hedyliidae within the Lepidoptera (Heikkila et al., 2012; Kawahara & Breinholt, 2014; Mutanen et al., 2010; Regier et al., 2013; Wahlberg et al., 2013).

### RESULTS

#### Superfamilies and families

The position of the seven families considered to reside in the Superfamily Papilionoidea Latreille, [1802] in the Order Lepidoptera Linnaeus, 1758 were given in the consensus of Van Nieukerken *et al.*, 2011, as follows:

Order **Lepidoptera** Linnaeus, 1758 (4 suborders) (15,578 genera, 157,424 species)

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Suborder **Glossata** Fabricius, 1775 (6 infraorders)  
Infraorder **Heteroneura** Tillyard, 1918 (34 superfamilies)  
Clade **Obtectomera** Minet, 1986 (12 superfamilies)  
Superfamily **Papilionoidea** Latreille, 1802 (7 families)  
Family **Papilionidae** Latreille, 1802 (32 genera, 570 species)  
Family **Hedyliidae** Guenée, 1858 (1 genus, 36 species)  
Family **Hesperiidae** Latreille, 1809 (570 genera, 4113 species)  
Family **Nymphalidae** Rafinesque, 1815 (559 genera, 6152 species)  
Family **Pieridae** Swainson, 1820 (91 genera, 1164 species)  
Family **Riodinidae** Grote, 1895 (146 genera, 1532 species)  
Family **Lycaenidae** Leach, 1815 (416 genera, 5201 species)

The order of the families above is modified from that given by Van Nieukerken *et al.*, (2011) to reflect the findings of Heikkila *et al.*, 2012. In their study the latter authors found that, within Papilionoidea, Papilionidae is the sister-group to Hedyloidea, Hesperioidea, and all other butterflies. Hence, the families in the current three superfamilies should be placed in a single family Papilionoidea. They also found that Hedyliidae is sister to Hesperiidae. Their parsimony analysis showed Papilionidae as basal, followed by Hedyliidae + Hesperiidae, Nymphalidae, Pieridae and Riodinidae + Lycaenidae. They used 71 butterfly species and included all seven families, the only recent study to have done so.

The Superfamily Papilionoidea has a total of about 19000 species in about 1820 genera. In the Afrotropical Region there are 4325 species (about 23% of the world total) in 318 genera (about 17% of the world total).

**FAMILY PAPILIONIDAE** Latreille, [1802]

This is the second smallest family (after the Hedyliidae) in the Papilionoidea. The family is cosmopolitan, with about 570 species in 32 genera. There are 101 species in 3 genera in the Afrotropical Region. A robust phylogeny for the family, to subtribal level, has been hypothesized and is given below. The following publications were consulted: Braby *et al.*, 2005 (Troidini); Condamine *et al.*, 2012 (Papilionidae); Nazari *et al.*, 2007 (Parnassinae); Simonsen *et al.*, 2011 (Papilioninae). Afrotropical taxa are highlighted in yellow.

**Subfamily Baroniinae** Bryk, 1913**Subfamily Parnassiinae** Duponchel, [1835]**Tribe Parnassiini** Duponchel, [1835]**Tribe Luehdorfiini** Chapman, 1895**Tribe Zerynthiini** Grote, 1899**Subfamily Papilioninae** Latreille, [1802]**Tribe Leptocircini** Kirby, 1896 (Afrotropical genus: *Graphium* Scopoli, 1777)**Tribe Teinopalpini** Grote, 1899**Tribe Troidini** Talbot, 1939**Subtribe Battina** Munroe & Ehrlich, 1960**Subtribe Troidina** Talbot, 1939 (Afrotropical genus: *Pharmacophagus* Haase, 1891)**Tribe Papilionini** Latreille, [1802] (Afrotropical genus: *Papilio* Linnaeus, 1758)**FAMILY HESPERIIDAE** Latreille, 1809

This family is cosmopolitan, with about 4, 150 species in 570 genera. There are 612 species in 84 genera in the Afrotropical Region. A phylogeny for the family as a whole was recently hypothesized by Warren and coworkers (Warren *et al.*, 2008, 2009). Within the subfamily Hesperinae, which contains the majority of species in the family, the tribal placement of a large number of genera is ambiguous. These genera are therefore currently designated as *incertae sedis*.

**Subfamily Coeliadinae** Evans, 1937 (Afrotropical genera: *Coeliades* Hübner, [1818]; *Pyrrhades* Lindsey & Miller, 1965; *Pyrrhochalcia* Mabilite, 1904)**Subfamily Euschemoninae** Kirby, 1897**Subfamily Eudaminae** Mabilite, 1877**Subfamily Pyrginae** Burmeister, 1878**Tribe Pyrrhopygini** Mabilite, 1877**Subtribe Pyrrhopygina** Mabilite, 1877**Subtribe Oxynetrina** Mielke, 2001**Subtribe Passovina** Mielke, 2001**Subtribe Zoniina** Mielke, 2001**Tribe Tagiadini** Mabilite, 1878 (Afrotropical genera: *Eagris* Guénéé, 1862; *Procampa* Holland, 1892; *Calleagris* Aurivillius, [1925]; *Kobelana* Larsen & Collins, 2013; *Tagiades* Hübner, [1819]; *Netrobalane* Mabilite, [1903]; *Caprona* Wallengren, 1857; *Leucochitonea* Wallengren, 1857; *Abantis* Hopffer, 1855)**Tribe Celaenorrhini** Swinhoe, 1912 (Afrotropical genera: *Ortholexis* Karsch, 1895; *Katreus* Watson, 1893; *Celaenorrhinus* Hübner, [1819]; *Scopulifera* Libert, 2014; *Bettonula* Libert

& Larsen, 2014; *Apallaga* Strand, 1911; *Eretis* Mabilite, 1891; *Sarangesa* Moore, [1881]; *Alenia* Evans, 1935; *Triskelionia* Larsen & Congdon, 2011)

**Tribe Carcharodini** Verity, 1940 (Afrotropical genera: *Gomalia* Moore, 1879; *Carcharodus* Hübner, [1819]; *Spialia* Swinhoe, [1912])**Tribe Erynnini** Brues & Carpenter, 1932**Tribe Achlyodidini** Burmeister, 1878**Tribe Pyrgini** Burmeister, 1878**Subfamily Heteropterae** Aurivillius, [1925] (Afrotropical genera: *Metisella* Hemming, 1934; *Hovala* Evans, 1937)**Subfamily Trapezitinae** Waterhouse & Lyell, 1914**Subfamily Hesperinae** Latreille, 1809**Tribe Aeromachini** Tutt, 1906 (Afrotropical genus: *Ampittia* Moore, [1881])

**Incertae sedis** (Afrotropical genera: *Tsitana* Evans, 1937; *Lepella* Evans, 1937; *Astictopterus* Felder & Felder, 1860; *Arnetta* Watson, 1893; *Prosopalpus* Holland, 1896; *Kedestes* Watson, 1893; *Fulda* Evans, 1937; *Gorgyra* Holland, 1896; *Gyrogra* Lindsey & Miller, 1965; *Teniorhinus* Holland, 1892; *Heriila* Larsen & Collins, 2012; *Ceratrachia* Butler, 1870; *Ceratricula* Larsen, 2013; *Flandria* Larsen, 2013; *Pardaleodes* Butler, 1870; *Hollandus* Larsen & Collins, 2015; *Ankola* Evans, 1937; *Xanthodisca* Aurivillius, [1925]; *Acada* Evans, 1937; *Rhabdomantis* Holland, 1896; *Osmodes* Holland, 1892; *Parosmodes* Holland, 1896; *Osphantes* Holland, 1896; *Acleros* Mabilite, 1885; *Paracleros* Berger, 1978; *Semalea* Holland, 1896; *Hypoleucis* Mabilite, 1891; *Meza* Hemming, 1939; *Paronymus* Aurivillius, [1925]; *Andronymus* Holland, 1896; *Malaza* Mabilite, [1904]; *Perrotia* Oberthür, 1916; *Ploetzia* Saalmüller, 1884; *Moltana* Evans, 1937; *Chondrolepis* Mabilite, [1904]; *Zophopetes* Mabilite, [1904]; *Gamia* Holland, 1896; *Artitropa* Holland, 1896; *Mopala* Evans, 1937; *Gretna* Evans, 1937; *Pteroteinon* Watson, 1893; *Leona* Evans, 1937; *Caenides* Holland, 1896; *Monza* Evans, 1937; *Melphina* Evans, 1937; *Melphinyet* Larsen, 2012; *Noctulana* Larsen, 2012; *Fresna* Evans, 1937; *Platylesches* Holland, 1896; *Erionota* Mabilite, 1878)

**Tribe Baorini** Doherty, 1886 (Afrotropical genera: *Brusa* Evans, 1937; *Zenonia* Evans, 1935; *Gegenes* Hübner, [1819]; *Parnara* Moore, [1881]; *Borbo* Evans, 1949; *Pelopidas* Walker, 1870)**Tribe Taractrocerini** Voss, 1952**Tribe Thymelicini** Tutt, 1905**Tribe Calpodini** Clark, 1948**Tribe Anthoptini** Warren, 2009**Tribe Moncini** Warren, 2008**Tribe Hesperini** Latreille, 1809**FAMILY NYMPHALIDAE** Rafinesque, 1815

This family is cosmopolitan, with about 6, 160 species in 560 genera. There are 1, 580 species in 86 genera in the Afrotropical Region. A classification of the family, shown below, was derived after consulting the following publications: Brower *et al.*, 2009 (Danaini);

Henning & Williams, 2010 (Acraeini); Lang, 2010 (Chalangini); Oshima *et al.*, 2010 (Apaturinae); Peggie, 2003 (Vagrantini); Pena *et al.*, 2006, 2008 (Satyrinae); Pena *et al.*, 2011 (Satyrini); Penz & Peggie, 2003 (Heliconiinae); Silva-Brandao, *et al.*, 2008 (Acraeini); Simonsen, 2006 (Argynnini); Simonsen *et al.*, 2006 (Argynnini); Wahlberg *et al.*, 2003, 2009 (Nymphalidae); Wahlberg, *et al.*, 2005 (Nymphalinae); Wahlberg, 2006 (Nymphalinae); Wahlberg & Zimmermann, 2000 (Melitaeini).

Within the subfamily Nymphalinae the tribal placement of the monotypic Afrotropical genera *Kallimoides* Shirôzu & Nakanishi, 1984 and *Vanessula* Dewitz, 1887 is ambiguous. Consequently they are placed as *incertae sedis*. In the tribe Argynnini the subtribal placement of the monospecific Afrotropical genus *Pardopsis* Trimen is ambiguous; it is therefore regarded to be *incertae sedis*. In the subfamily Limenitidinae the tribal placement of *Kumothales* Overlaet, 1940; *Pseudoneptis* Snellen, 1882; and *Pseudacraea* Westwood, [1850] are ambiguous; they are therefore placed as *incertae sedis*.

#### Subfamily Danainae Boisduval, 1833

##### Tribe Danaini Boisduval, 1833

###### Subtribe Itunina Reuter, 1896

**Subtribe Euploeina** Moore, [1880]  
(Afrotropical genus: *Euploea* Fabricius, 1807)

**Subtribe Danaina** Boisduval, 1833  
(Afrotropical genera: *Danaus* Kluk, [1780]; *Tirumala* Moore, [1880])

**Subtribe Amaurina** Le Cerf, 1922  
(Afrotropical genus: *Amauris* Hübner, [1816])

##### Tribe Tellervini Fruhstorfer, 1910

##### Tribe Ithomiini Godman & Salvin 1879

**Subfamily Libytheinae** Boisduval, 1833  
(Afrotropical genus: *Libythea* Fabricius, 1807)

**Subfamily Calinaginae** Moore, 1895

**Subfamily Satyrinae** Boisduval, 1833

**Tribe Elymniini** Herrich-Schaeffer, 1864  
(Afrotropical genus: *Elymniopsis* Fruhstorfer, 1907)

**Tribe Zetherini** Reuter, 1896

**Tribe Amathusiini** Moore, 1894

**Tribe Brassolini** Boisduval, 1836

**Subtribe Naropina** Stichel, 1925

**Subtribe Brassolina** Boisduval, 1836

**Tribe Morphini** Newman, 1834

**Tribe Melanitini** Reuter, 1896 (Afrotropical genera: *Gnophodes* Doubleday, [1849]; *Melanitis* Fabricius, 1807)

**Tribe Dirini** Verity, 1953 (Afrotropical genera: *Paralethe* van Son, 1955; *Aeropetes* Billberg, 1820; *Tarsocera* Butler, 1899; *Torynesis* Butler, 1899; *Dira* Hübner, [1819]; *Serradinga* Henning & Henning, 1996; *Dingana* van Son, 1955)

**Tribe Haeterini** Herrich-Schaeffer, 1864

**Tribe Satyrini** Boisduval, 1833

**Subtribe Eritina** L. D. Miller, 1968

**Subtribe Euptychiina** Reuter, 1896

**Subtribe Ragadiina** Herrich-Schaeffer, 1864

**Subtribe Coenonymphina** Tutt, 1896

**Subtribe Parargina** Tutt, 1896 (Afrotropical genus: *Lasiommata* Westwood, 1841)

**Subtribe Mycalesina** Reuter, 1896  
(Afrotropical genera: *Bicyclus* Kirby, [1871]; *Hallelesis* Condamin, 1961; *Heteropsis* Westwood, [1850])

**Subtribe Lethina** Reuter, 1896 (Afrotropical genus: *Aphysoneura* Karsch, 1894)

**Subtribe Maniolina** Grote, 1897

**Subtribe Melanargiina** Wheeler, 1903

**Subtribe Pronophilina** Reuter, 1896

**Subtribe Satyrina** Boisduval, 1833  
(Afrotropical genus: *Hipparchia* Fabricius, 1807)

**Subtribe Ypthimina** Reuter, 1896  
(Afrotropical genera: *Ypthima* Hübner, [1818]; *Ypthimomorpha* van Son, 1955; *Mashuna* van Son, 1955; *Mashunoides* Mendes & Bivar de Sousa, 2009; *Strabena* Mabilille, 1877; *Neocoenyra* Butler, 1886; *Coenyropsis* van Son, 1958; *Coenyra* Hewitson, 1865; *Physcaeneura* Wallengren, 1857; *Neita* van Son, 1955; *Melampias* Hübner, [1819]; *Cassionympha* van Son, 1955; *Pseudonympha* Wallengren, 1857; *Paternympha* Henning & Henning, 1997; *Stygionympha* van Son, 1955)

**Subtribe Erebiina** Tutt, 1896

**Subfamily Charaxinae** Guenée, 1865

**Tribe Prothoini** Roepke, 1938

**Tribe Pallini** Rydon, 1971 (Afrotropical genera: *Palla* Hübner, [1819])

**Tribe Charaxini** Guenée, 1865 (Afrotropical genera: *Charaxes* Ochsenheimer, 1816)

**Tribe Preponini** Rydon, 1971

**Tribe Anaeini** Reuter, 1896

**Subfamily Pseudergolinae** Jordan, 1898

**Subfamily Nymphalinae** Rafinesque, 1815

**Tribe Coeini** Scudder, 1893

**Tribe Nymphalini** Rafinesque, 1815  
(Afrotropical genera: *Antanartia* Rothschild & Jordan, 1903; *Vanessa* Fabricius, 1807)

**Tribe Victorinini** Scudder, 1893

**Tribe Kallimini** Doherty, 1886 (Afrotropical genera: *Catacroptera* Karsch, 1894; *Mallika* Collins & Larsen, 1991)

**Tribe Junoniini** Reuter, 1896 (Afrotropical genera: *Junonia* Hübner, [1819]; *Salamis* Boisduval, 1833; *Protogoniomorpha* Wallengren, 1857; *Precis* Hübner, [1819]; *Hypolimnas* Hübner, [1819])

**Tribe Melitaeini** Newman, 1870

**Subtribe Melitaeina** Newman, 1870  
(Afrotropical genus: *Melitaea* Fabricius, 1807)

**Incertae sedis** (Afrotropical genera: *Kallimoides* Shirôzu & Nakanishi, 1984; *Vanessula* Dewitz, 1887)

**Subfamily Cyrestinae** Guenée, 1865 (Afrotropical genus: *Cyrestis* Boisduval, 1832)

**Subfamily Biblidinae** Boisduval, 1833**Tribe Eubagini** Burmeister, 1878**Tribe Biblidini** Boisduval, 1833 (Afrotropical genera: *Byblia* Hübner, [1819]; *Mesoxantha* Aurivillius, [1899]; *Ariadne* Horsfield, [1829]; *Neptidopsis* Aurivillius, [1899]; *Eurytela* Boisduval, 1833)**Tribe Ageroniini** Doubleday, 1847**Tribe Callicorini** Orfila, 1952**Tribe Epiphilini** Jenkins, 1987**Tribe Epicaliini** Guenée, 1865 (Afrotropical genus: *Sevenia* Koçak, 1996)**Subfamily Apaturinae** Boisduval, 1840 (Afrotropical genus: *Apaturoopsis* Aurivillius, [1899])**Subfamily Heliconiinae** Swainson, 1822**Tribe Acraeini** Boisduval, 1833**Subtribe Acraeina** Boisduval, 1833 (Afrotropical genus: *Acraea* Fabricius, 1807)**Subtribe Actinotina** Henning, 1992 (Afrotropical genus: *Telchinia* Hübner, [1819])**Tribe Heliconiini** Swainson, 1822**Tribe Vagrantini** Pinratana & Eliot, 1996 (Afrotropical genera: *Smerina* Hewitson, 1874; *Lachnoptera* Doubleday, [1847]; *Phalanta* Horsfield, [1829])**Tribe Argynnini** Swainson, 1833**Subtribe Euptoietina** Simonsen, 2006**Subtribe Yrameina** Reuss, 1926**Subtribe Boloriina** Warren *et al.*, 1946**Subtribe Argynnina** Swainson, 1833 (Afrotropical genera: *Issoria* Hübner, [1819]; *Argynnis* Fabricius, 1807)*Incertae sedis* (Afrotropical genus: *Pardopsis* Trimen, 1887)**Subfamily Limenitidinae** Behr, 1864**Tribe Parthenini** Reuter, 1896**Tribe Neptini** Newman, 1870 (Afrotropical genera: *Cymothoe* Hübner, [1819]; *Harma* Doubleday, [1848]; *Neptis* Fabricius, 1807)**Tribe Limenitidini** Behr, 1864**Tribe Adoliadini** Doubleday, 1845**Subtribe Adoliadina** Doubleday, 1845**Subtribe Bebearina** Hemming, 1960 (Afrotropical genera: *Evena* Westwood, [1850]; *Aterica* Boisduval, 1833; *Pseudargynnis* Karsch, 1892; *Cynandra* Schatz, [1887]; *Euryphura* Staudinger, 1891; *Euryphaedra* Staudinger, 1891; *Euryphurana* Hecq, 1992; *Harmilla* Aurivillius, 1892; *Euphaedra* Hübner, [1819]; *Euriphene* Boisduval, 1847; *Bebearia* Hemming, 1960; *Euptera* Staudinger, 1891; *Pseudathyma* Staudinger, 1891)**Tribe Chalingini** Morishita, 1996 (Afrotropical genus: *Hamanumida* Hübner, [1819])*Incertae sedis* (Afrotropical genera: *Kumothales* Overlaet, 1940; *Pseudoneptis* Snellen, 1882; *Pseudacraea* Westwood, [1850])**FAMILY PIERIDAE** Swainson, 1820

This family is cosmopolitan, with about 1,164 species in 91 genera. There are 199 species in 20 genera in the

Afrotropical Region. A classification of the family, based on a robust phylogeny, and shown below, was derived after consulting the following publications: Braby *et al.*, 2006; Wahlberg *et al.*, 2014.**Subfamily Dismorphiinae** Schatz, 1886**Subfamily Pseudopontiinae** Reuter, 1896 (Afrotropical genus: *Pseudopontia* Plötz, 1870)**Subfamily Coliadinae** Swainson, 1821 (Afrotropical genera: *Eurema* Hübner, [1819]; *Catopsilia* Hübner, [1819]; *Colias* Fabricius, 1807)**Subfamily Pierinae** Swainson, 1820**Tribe Elodinini** Braby, 2014**Tribe Leptosiaini** Braby, 2014 (Afrotropical genus: *Leptosia* Hübner, [1818])**Tribe Nephroniini** Braby, 2014 (Afrotropical genus: *Nepheronia* Butler, 1870)**Tribe Teracolini** Reuter, 1896 (Afrotropical genera: *Colotis* Hübner, [1819]; *Eronia* Hübner, [1823]; *Teracolus* Swainson, [1833]; *Calopieris* Aurivillius, [1899]; *Pinacopteryx* Wallengren, 1857; *Gideona* Klots, 1933; *Afrodryas* Stoneham, 1957)**Tribe Anthocharadini** Scudder, 1889 (Afrotropical genus: *Euchloe* Hübner, [1819])**Tribe Pierini** Swainson, 1820**Subtribe Appiadina** Kuzsenov, 1921 (Afrotropical genus: *Appias* Hübner, [1819])**Subtribe Pierina** Swainson, 1820 (Afrotropical genera: *Pontia* Fabricius, 1807; *Pieris* Schrank, 1801)**Subtribe Aporiina** Chapman, 1895 (Afrotropical genera: *Belenois* Hübner, [1819]; *Dixeia* Talbot, 1932; *Mylothris* Hübner, [1819])**FAMILY RIODINIDAE** Grote, 1895This family is cosmopolitan, with about 1,532 species in 146 genera. There are only 15 species in 2 genera in the Afrotropical Region. A classification of the family, based on a robust phylogeny, and shown below, was derived after consulting Espeland *et al.*, 2015. There is still ambiguity within the tribe Abisarini but this concerns the Oriental genus *Abisara*. The two Afrotropical genera *Afriodinia* d'Abrera, 2009 and *Saribia* Butler, 1878 are placed in the subtribe Abisarina. In addition, there are four *incertae sedis* clades nested within the Neotropical Riodininae (Espeland *et al.*, 2015). Thus the tribal classification for Riodininae is still incomplete but this does not impinge the Afrotropical fauna.**Subfamily Euselasiinae** Kirby, 1871**Subfamily Nemeobiinae** Bates, [1868]**Tribe Nemeobiini** Bates, [1868]**Subtribe Zemerina** Stichel, 1928**Subtribe Corrachina** Stichel, 1928**Subtribe Stibogina** Stichel, 1928**Subtribe Dodonaina** Espeland & Hall, 2015**Subtribe Nemeobiina** Bates, [1868]**Tribe Abisarini** Stichel, 1928**Subtribe Abisarina** Stichel, 1928 (*Abisara* [in part; not Afrotropical] + the Afrotropical

genera *Afriodinia* d'Abrera, 2009; *Saribia* Butler, 1878)

***Incertae sedis*** (*Abisara* [in part] (not Afrotropical), + six other genera)

**Subfamily Riodiniinae** Grote, 1895

**Tribe Eurybiini** Reuter, 1896

**Tribe Mesosemiini** Bates, 1859

**Tribe Stalachtini** Bates, 1861

**Tribe Nymphidiini** Bates, 1859

**Tribe Symmachiini** Bates, 1859

**Tribe Helicopini** Stichel, 1928

**Tribe Riodinini** Grote, 1895

## FAMILY LYCAENIDAE Leach, 1815

This family is cosmopolitan, with about 5, 201 species in 416 genera. There are 1, 814 species in 123 genera in the Afrotropical Region. A classification of the family, shown below, was derived after consulting the following publications: Boggs *et al.*, 2003 (Lycaenidae); Boyle *et al.*, 2014 (Aphnaeinae); Corbet & Pendlebury 1992 (Lycaenidae); Kalisewska *et al.*, 2015 (Miletinae); Talavera *et al.*, 2013 (Polyommata).

A robust phylogeny for the subfamily Poritiinae Doherty, 1886 has not as yet been hypothesized. Further research is necessary, so the tribal arrangement within the subfamily Poritiinae is tentative. A large number of genera, both Afrotropical and extra-Afrotropical, in the tribe Polyommata Swainson, 1927 have not been assigned subtribal status.

**Subfamily Curetinae** Distant, 1884

**Subfamily Poritiinae** Doherty, 1886

**Tribe Poritiini** Doherty, 1886

**Tribe Pentilini** Aurivillius, 1914 (Afrotropical genera: *Durbania* Trimen, 1862; *Durbaniella* van Son, 1959; *Durbaniopsis* van Son, 1959; *Alaena* Boisduval, 1847; *Ptelina* Clench, 1965; *Pentila* Westwood, [1851]; *Liptenara* Bethune-Baker, 1915; *Telipna* Aurivillius, 1895; *Ornipholidotos* Bethune-Baker, 1914; *Torbenia* Libert, 2001; *Cooksonia* Druce, 1905)

**Tribe Liptenini** Röber, 1892 (Afrotropical genera: *Liptena* Westwood, [1851]; *Obania* Collins & Larsen, 1998; *Kakumia* Collins & Larsen, 1998; *Tetrarhanis* Karsch, 1893; *Falcuna* Stempffer & Bennett, 1963; *Larinopoda* Butler, 1871; *Micropentila* Aurivillius, 1895; *Pseuderesia* Butler, 1874; *Eresina* Aurivillius, [1899]; *Eresiomera* Clench, 1965; *Parasiomera* Sáfián & Collins, 2015; *Citrinophila* Kirby, 1887; *Argyrocheila* Staudinger, 1892; *Teriomima* Kirby, 1887; *Euthecta* Bennett, 1954; *Baliochila* Stempffer & Bennett, 1953; *Cnodontes* Stempffer & Bennett, 1953; *Congdonia* Henning & Henning, 2004; *Eresinopsides* Strand, 1911; *Toxochitona* Stempffer, 1956; *Mimacraea* Butler, 1872; *Mimeresia* Stempffer, 1961)

**Tribe Epitolini** Jackson, 1962 (Afrotropical genera: *Iridana* Aurivillius, [1920]; *Teratoneura* Dudgeon, 1909; *Epitola* Westwood, [1851]; *Cerautola* Libert, 1999; *Hewitola* Libert, 1999;

*Geritola* Libert, 1999; *Stempfferia* Jackson, 1962; *Cephetola* Libert, 1999; *Deloneura* Trimen, 1868; *Batelusia* Druce, 1910; *Tumerepedes* Bethune-Baker, 1913; *Pseudoneaveia* Stempffer, 1964; *Neaveia* Druce, 1910; *Epitolina* Aurivillius, 1895; *Hypophytala* Clench, 1965; *Phytala* Westwood, [1851]; *Neoepitola* Jackson, 1964; *Aethiopana* Bethune-Baker, 1915; *Hewitsonia* Kirby, [1871]; *Powellana* Bethune-Baker, 1908)

**Subfamily Miletinae** Reuter, 1896

**Tribe Liphyrini** Doherty, 1889 (Afrotropical genera: *Euliphya* Holland, 1890; *Aslauga* Kirby, 1890)

**Tribe Lachnocnemini** Clench, 1955 (Afrotropical genera: *Lachnocnema* Trimen, 1887; *Thestor* Hübner, [1819])

**Tribe Spalgini** Toxopeus, 1929 (Afrotropical genus: *Spalgis* Moore, 1879)

**Tribe Miletini** Reuter, 1896 (Afrotropical genus: *Megalopalpus* Röber, 1886)

**Subfamily Aphnaeinae** Distant, 1884 (Afrotropical genera: *Phasis* Hübner, [1819]; *Tylopaedia* Tite & Dickson, 1973; *Argyraspodes* Tite & Dickson, 1973; *Aloeides* Hübner, [1819]; *Eriksonia* Trimen, 1891; *Trimenia* Tite & Dickson, 1973; *Aphnaeus* Hübner, [1819]; *Axiocerses* Hübner, [1819]; *Zeritis* Boisduval, 1836; *Crudaria* Wallengren, 1875; *Cigaritis* Donzel, 1848; *Chloroselas* Butler, 1886; *Cesa* Seven, 1997; *Vansomerenia* Heath, 1997; *Lipaphnaeus* Aurivillius, [1916]; *Chrysoritis* Butler, [1897]; *Pseudaletis* Druce, 1888)

**Subfamily Polyommata Swainson, 1827**

**Tribe Lycaenesthini** Toxopeus, 1929 (Afrotropical genera: *Anthene* Doubleday, 1847; *Cupidesthes* Aurivillius, 1895; *Neurellipes* Bethune-Baker, 1910; *Triclema* Karsch, 1893; *Monile* Ungemach, 1932)

**Tribe Candalidini** Eliot, 1973

**Tribe Niphandini** Sibatani & Ito, 1942

**Tribe Polyommata Swainson, 1827**

**Subtribe Polyommata Swainson, 1827**

(Afrotropical genus: *Chilades* Moore, [1881])

***Incertae sedis*** (Afrotropical genera: *Cupidopsis* Karsch, 1895; *Pseudonacaduba* Stempffer, 1943; *Catochrysops* Boisduval, 1832; *Lampides* Hübner, [1819]; *Uranothauma* Butler, 1895; *Cacyreus* Butler, 1898; *Harpencyreus* Heron, 1909; *Leptotes* Scudder, 1876; *Cyclyrius* Butler, 1897; *Tuxentius* Larsen, 1982; *Tarucus* Moore, [1881]; *Zintha* Eliot, 1973; *Zizeeria* Chapman, 1910; *Zizina* Chapman, 1910; *Actizera* Chapman, 1910; *Zizula* Chapman, 1910; *Brephidium* Scudder, 1876; *Oraidium* Bethune-Baker, 1914; *Azanus* Moore, [1881]; *Eicochrysops* Bethune-Baker, 1924; *Euchrysops* Butler, 1900; *Orachrysops* Vári, 1986; *Lepidochrysops* Hedicke, 1923; *Thermoniphis* Karsch, 1895; *Oboronia* Karsch, 1893)

**Subfamily Lycaeninae** Leach, 1815

**Tribe Lycaenini** Leach, 1815 (Afrotropical genus: *Lycaena* Fabricius, 1807)

**Tribe Heliophorini** Verity, 1943

**Subfamily Theclinae** Swainson, 1830 (1820)

**Tribe Luciini** Waterhouse & Lyell, 1914  
**Tribe Arhopalini** Bingham, 1907  
**Tribe Theclini** Swainson, 1830 (1820)  
**Tribe Ogyrini** Waterhouse & Lyell, 1914  
**Tribe Zesiini** Swinhoe, 1912  
**Tribe Amblypodini** Doherty, 1886 (Afrotropical genus: *Myrina* Fabricius, 1807)  
**Tribe Iolaini** Riley, 1958 (Afrotropical genera: *Iolaus* Hübner, [1819]; *Stugeta* Druce, 1891; *Etesiolaus* Stempffer & Bennett, 1959)  
**Tribe Hypolycaenini** Swinhoe, 1910 (Afrotropical genera: *Hypolycaena* Felder, 1862; *Hemiolaus* Aurivillius, [1922]; *Leptomyrina* Butler, 1898)  
**Tribe Remelanini** Eliot, 1973  
**Tribe Loxurini** Swinhoe, 1910  
**Tribe Horagini**, Swinhoe, 1910  
**Tribe Cheritrini** Swinhoe, 1910 (Afrotropical genus: *Dapidodigma* Karsch, 1895)  
**Tribe Catapaecilmatini** Eliot, 1973  
**Tribe Hypotheclini** Eliot, 1973  
**Tribe Oxylini** Eliot, 1973 (Afrotropical genera: *Oxyides* Hübner, [1819]; *Syrmoptera* Karsch, 1895)  
**Tribe Eumaeini** Doubleday, 1847  
    **Subtribe Calycopidina** Duarte & Robbins, 2010  
**Tribe Deudorini** Doherty, 1886 (Afrotropical genera: *Virachola* Moore, [1881]; *Hypomyrina* Druce, 1891; *Paradeudorix* Libert, 2004; *Pilodeudorix* Druce, 1891; *Capys* Hewitson, [1865])  
**Tribe Tomarini** Eliot, 1973

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