

Genus *Megalopalpus* Röber, 1886 Harvesters

Deutsche Entomologische Zeitschrift, Iris 1: 51 (45-72).

Type-species: *Megalopalpus simplex* Röber, by original designation. Placed on Official List of Generic Names in Zoology; Opinion 566, 1959 (*Opinions and Declarations Rendered by the International Commission on Zoological Nomenclature* 20: 377-389).

The genus *Megalopalpus* belongs to the Family Lycaenidae Leach, 1815; Subfamily Miletinae Reuter, 1896; Tribe Miletini Reuter, 1896; Subtribe Megalopalpina Grishin, 2023. The only other genus in the Tribe Miletini in the Afrotropical Region is *Thestor*.

Megalopalpus (**Harvesters**) is a purely Afrotropical genus containing four species. Information in regard to the early stages is available only for *Megalopalpus zymna* Röber. Eggs are placed by the ovipositing female near homopteran prey or on their egg masses or even on their nymphs. Larvae live among colonies of homopteran prey. *Pheidole* ants tending homopterans are not apparently strongly attracted to larvae and may attack them in moments of stress. A DNO and TOs are apparently absent. Larvae are predatory on Homoptera (membracids and jassids). Sources (see Cottrell, 1984): Lamborn (1914a), Eltringham (1922).

Megalopalpus angulosus Grünberg, 1910 Angled Harvester

Megalopalpus angulosus Grünberg, 1910. *Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin* 1910: 478 (469-480).

Megalopalpus angulosus Grünberg, 1910. d'Abrera, 2009: 686.



Megalopalpus angulosus. Male. Left – upperside; right – underside.
Bobiri Butterfly Sanctuary, Ghana. 20 May 2014. AJG. Gardiner Collection.
Images M.C. Williams ex Gardiner Collection.



Megalopalpus angulosus. Male. Left – upperside; right – underside.
Kongu, Ivindo N.P., Gabon. 23 November 2017. J. Dobson.
Images M.C. Williams ex Dobson Collection.



Megalopalpus angulosus. Female. Left – upperside; right – underside.
Eastern Democratic Republic of Congo. 12 June 1978. A. Heath. Gardiner Collection.
Images M.C. Williams ex Gardiner Collection.

Type locality: [Equatorial Guinea]: “Makomo; Alcu”.

Distribution: Nigeria (Cross River loop), Cameroon, Equatorial Guinea, Gabon, Democratic Republic of Congo (west and Kasai).

Specific localities:

Nigeria – Oban Hills (Larsen, 2005a).

Cameroon – Toko in Korup National Park (Larsen, 2005a).

Equatorial Guinea – Makomo (TL); Alcu (Grünberg, 1910).

Gabon – Tchimbele (Vande weghe, 2010).

Habitat: Forest.

Habits: A scarce butterfly that appears to fly higher above the ground than the common *Megalopalpus zymna* (Larsen, 2005a).

Early stages: Nothing published.

Larval food: Nothing published.

Megalopalpus metaleucus Karsch, 1893 Large Harvester

Megalopalpus metaleucus Karsch, 1893. *Berliner Entomologische Zeitschrift* **38**: 217 (1-266).
Megalopalpus metaleucus Karsch, 1893. d’Abrera, 2009: 686.



Megalopalpus metaleucus. Male. Left – upperside; right – underside.
Mpanga Forest, Uganda. 13 June 2009. J. Dobson.
Images M.C. Williams.



Megalopalpus metaleucus. Female. Left – upperside; right – underside.
Kongu, Ivindo N.P., Gabon. 23 November 2017. J. Dobson.
Images M.C. Williams ex Dobson Collection.

Type locality: Togo: “Bismarckburg”.

Distribution: Guinea, Liberia, Ivory Coast, Ghana, Togo, Nigeria, Cameroon, Gabon, Congo, Central African Republic, Democratic Republic of Congo (Mayumbe, Mongala, Uele, Equateur, Sankuru), Uganda.

Specific localities:

Guinea – Ziama (Safian *et al.*, 2020).

Liberia – Wologizi (Safian *et al.*, 2020).

Ghana – Bobiri Butterfly Sanctuary (Larsen *et al.*, 2007).

Togo – Bismarckburg (TL).

Cameroon – Korup (Larsen, 2005a).

Gabon – Lope N.P. (Vande weghe, 2010); Kongou (Vande weghe, 2010); Ipassa (Vande weghe, 2010); camp Nouna (Vande weghe, 2010); Akaka (Vande weghe, 2010); Waka (Vande weghe, 2010).

Democratic Republic of Congo – Ituri Forest (Ducarme, 2018); Central Forest Block (Ducarme, 2018); Mt Mitumba (Ducarme, 2018).

Uganda – Semuliki N.P. (H. Selb, unpublished, 2016).

Habitat: Forest (Larsen, 2005a).

Habits: Much scarcer than *Megalopalpus zymna*, with which it often flies, but usually flying higher above ground level (Larsen, 2005a).

Early stages: Nothing published.

Larval food: Nothing published.

Megalopalpus simplex Röber, 1886 Light Harvester

Megalopalpus simplex Röber, 1886. *Deutsche Entomologische Zeitschrift, Iris* **1**: 51 (45-72).



Megalopalpus simplex. Male. Left – upperside; right – underside.
Ipassa, Ivindo N.P., Gabon. 16 June 2016. J. Dobson.
Images M.C. Williams ex Dobson collection.



Megalopalpus simplex. Female. Left – upperside; right – underside.
Ipassa, Gabon. June 2016. J. Dobson.
Images M.C. Williams ex Dobson collection.

Type locality: [Equatorial Africa]: “Borneo”. [False locality.]

Distribution: Liberia, Ghana, Nigeria, Cameroon, Equatorial Guinea, Gabon, Democratic Republic of Congo, Uganda.

Specific localities:

Cameroon – Barombi (Kirby, 1890).

Equatorial Guinea – Sampaka, Bioko (Martin, 2015).

Democratic Republic of Congo – Ituri Forest (Ducarme, 2018); Semuliki Valley (Ducarme, 2018); Central Forest Block (Ducarme, 2018); Mt Mitumba (Ducarme, 2018); Mt Blue (Ducarme, 2018).

Uganda – Semuliki N.P. (H. Selb, unpublished, 2016).

Early stages: Nothing published.

Larval food: Nothing published.

Note: D’Abrera (2009: 686) avers that *Megalopalpus simplex* Roeber, 1886 may be a synonym of *Megalopalpus zymna* (Westwood, 1851), lists it as such (with a question mark), but does not make any formal taxonomic changes.

bicoloria Capronnier, 1889 (as sp. of *Liptena*). *Bulletin de la Société Entomologique de Belgique* **1889**: 121 (118-127). [Democratic Republic of Congo]: “Congo”.

similis Kirby, 1890 (as sp. of *Allotinus*). *Annals and Magazine of Natural History* (6) **6**: 262 (261-274). Cameroon: “Barombi”.

gigas Bethune-Baker, 1914 (as sp. of *Megalopalpus*). *Transactions of the Entomological Society of London* **1914**: 335 (314-337). No locality.

Megalopalpus zymna (Westwood, [1851])

Small Harvester

Pentila zymna Westwood, [1851] *in* Doubleday & Westwood, [1846-52]. *The genera of diurnal Lepidoptera*, London: pl. 76 [1851], 503 [1852] (1: 1-250 pp.; 2: 251-534 pp.). London.).

Megalopalpus zymna Westwood, 1851. d’Abrera, 2009: 686.



Megalopalpus zymna. Male. Left – upperside; right – underside.
Mpanga Forest, Uganda. 13 June 2009. J. Dobson.

Type locality: [Ghana]: “Ashanti”.

Distribution: Liberia, Ivory Coast, Ghana, Togo, Nigeria, Cameroon, Equatorial Guinea (Mbini, Island of Bioko), Gabon, Congo, Central African Republic, Angola, Democratic Republic of Congo, Sudan (south), Uganda, Tanzania (north-west), Zambia (Congdon & Collins, 1998).

Specific localities:

Liberia – Wologizi (Safian *et al.*, 2020); Wonegizi (Safian *et al.*, 2020).

Ghana – Bobiri Butterfly Sanctuary (Larsen *et al.*, 2007).

Nigeria – Oni Creek (Lamborn, 1914).

Gabon – Throughout (Vande weghe, 2010).

Central African Republic – Dzanga (Noss, 1998).

Democratic Republic of Congo – Ituri Forest (Ducarme, 2018); Semuliki Valley (Ducarme, 2018); Central Forest Block (Ducarme, 2018); Mt Blue (Ducarme, 2018).

Uganda – Ruwenzori (Aurivillius, 1922); Semuliki N.P. (Davenport & Howard, 1996).

Tanzania – Minziro Forest (Congdon & Collins, 1998); Kikuru Forest (Congdon & Collins, 1998); Munene Forest (very common in all) (Congdon & Collins, 1998).

Habitat: Forest and dense agricultural land (Larsen, 2005a).

Habits: Common in forest and dense agricultural land in Ivory Coast, Ghana and Nigeria (Larsen, 2005a). Flies in dark parts of dense forest. The flight is weak and fluttering, and they often fly together with distasteful day-flying moths, which they mimic (Congdon & Collins, 1998). They fly low down but often for a prolonged period (Larsen, 2005a). Lamborn (1914) observed both sexes feeding from the secretions of the homoptera that the larvae fed on. This adult feeding behaviour was described and photographed by Gilbert (1976).

Early stages:

Lamborn, 1914: 458 [Oni Camp, 110 km east of Lagos, Nigeria].

The larvae are carnivorous, feeding on a variety of Homoptera [Hemiptera] belonging to the families Jassidae [now Cicadellidae] and Membracidae. The larva has a hard skin studded with tubercles, which are surmounted with coarse sparse hairs. The larva is dark brown in colour. Lamborn found that once a larva was consuming a certain species of homopteran [hemipteran] it would not change to another. Females lay their eggs in close proximity to an ant-shelter that harbours homopterans and also among unsheltered homoptera. Eggs have even been found laid on homopteran egg masses and on living membracid nymphs. The egg is a circular disc with a broad flattened white margin and a raised bluish semitransparent centre. Larvae were found on young leaves of *Musanga smithii* R. Br. (Urticaceae), together with cicadellids (*N. ornata*) and ants (*P. aurivillii*) and on *Triumfetta cordifolia* Guill. & Perr, together with membracids and *P. aurivillii*. Larvae creep up on the cicadellids, periodically stopping and vibrating the true legs. On reaching the cicadellid the legs are vibrated on the closed wings of the prey, much as the tending ants do with their antennae. The larva then raises its body over the cicadellid, then drops onto it, grasping it with its true legs. The prey is killed by a bite to the back of the neck, then completely consumed, the legs of the larva aiding in holding the prey and guiding the prey to its mouth. Following consumption of the homopteran the legs are cleaned with the mandibles and ‘wiped’ on the side of the facial disc. Lamborn noted that in a seven hour period a larva consumed nine cicadellids. Both nymphs and imagoes of the homopterans are fed upon. The cicadellids occurred on the young shoots of a variety of plants, often enclosed in shelters built by ants. Although ants often run over the larvae and antennate them Lamborn did not believe that they obtained any nutritive substance from the larvae. The larvae do not possess a DNO or TO’s.

Eltringham, 1921b: 483 [ex Lamborn; Oni, Nigeria].

“Plate XIII, fig. 13. This curious **pupa** is remarkable for its elongated form and absence of irregular projections. It is ornamented all over with dark markings which give it a delicately marbled appearance, and on the abdominal segments are smooth rounded processes. It is attached by the terminal segment, its long axis making a slight angle with that of the twig. Length 7.5 mm.”

Gilbert, 1976.

Larval food:

Leptocentrus altifrons Walk. (Hemiptera: Membracidae) [Lamborn, 1914: 466; Nigeria].

Anchon relatum Distant (Hemiptera: Membracidae) [Lamborn, 1914: 464; Nigeria].

Gargara variegata Sign. (Hemiptera: Membracidae) [Lamborn, 1914: 464; Nigeria].

Nehela ornata Distant (Hemiptera: Cicadellidae) [Lamborn, 1914: 459; Nigeria].

Cicadellidae (Hemiptera) [Congdon & Collins, 1998: 82].

Associated ant:

Pheidole aurivillii Mayr. race *kasaiensis* For. (Formicidae) [Lamborn, 1914; Nigeria].

Camponotus akwapimensis var. *poultoni* (Formicidae) [Lamborn, 1914: 464; Nigeria].

pallida Aurivillius, 1922 *in* Seitz, 1908-25 (as f. of *Megalopalpus zymna*). *Die Gross-Schmetterlinge der Erde*, Stuttgart (2) **13** *Die Afrikanischen Tagfalter*: 362 (614 pp.). Uganda: "Ruwenzori". Holotype in the Swedish Natural History Museum (images available at www2.nrm.se/en/lep_nrm/z).