

Genus *Pseudonacaduba* Stempffer, 1943 Line Blues

[? Get ref.]

Type-species: *Lycaena aethiops* Mabille, by original designation.

The genus *Pseudonacaduba* belongs to the Family Lycaenidae Leach, 1815; Subfamily Polyommatainae Swainson, 1827; Tribe Polyommataini Swainson, 1827; Subtribe Unina Grishin, 2023a. (see Zhang *et al.* 2023. Butterfly Classification and Species Discovery Using Genomics. *The Taxonomic Report of the International Lepidoptera Survey* **11** (3): 43). There are no other genera in the Subtribe Unina in the Afrotropical Region.

Pseudonacaduba (**Line Blues**) is a purely Afrotropical genus containing two species.

**Pseudonacaduba aethiops* (Mabille, 1877) Dark Line Blue



Dark Line Blue (*Pseudonacaduba aethiops*). Yangambi, DRC.
Image courtesy Bart Wursten.

Lycaena aethiops Mabille, 1877. *Bulletin de la Société Zoologique de France* **2**: 219 (214-240).

Petrelaea aethiops (Mabille, 1877). Kielland, 1990d.

Pseudonacaduba aethiops Mabille, 1877. d'Abrera, 2009: 804.



Pseudonacaduba aethiops. Male. Left – upperside; right – underside.
Lisombo, Ikelenge, Zambia. 23 April 2004. A. Gardiner.
Images M.C. Williams ex Gardiner Collection.

Alternative common name: Dark African Line Blue.

Type locality: Angola: “Chinchoxo”.

Distribution: Nigeria (east and Cross River loop), Cameroon, Equatorial Guinea, Gabon, Angola (north), Central African Republic, Democratic Republic of Congo, Uganda, Kenya (west; Kielland, 1978), Tanzania (west), Zambia.

Records of this species from Sierra Leone (Ackery *et al.*, 1995) and Ivory Coast (Stempffer, 1966) are probably erroneous (Larsen, 2005a).

Specific localities:

Nigeria – Cross River loop (Larsen, 2005a); Abo Abo Village in Okwangwo (Larsen, 2005a).

Cameroon – Korup (Larsen, 2005a).

Gabon – Practically throughout (Vande weghe, 2010); upper Ogove River (Holland, 1891).

Angola – Chinchoxo (TL).

Central African Republic – Bayanga (male illustrated above).

Democratic Republic of Congo – Lopori Shoven (Capronnier, 1889); Lopori Strand (Capronnier, 1889); Ituri Forest (Ducarme, 2018); Central Forest Block (Ducarme, 2018); Mt Mitumba (Ducarme, 2018).

Uganda – Semuliki N.P. (Davenport & Howard, 1996).

Tanzania – Mpanda (Kielland, 1990d); Kigoma (Kielland, 1990d).

Zambia – Known from a single male from Lisombu River (Heath) (Heath *et al.*, 2002).

Habitat: Forest and heavy woodland. In Tanzania at altitudes from 800 to 1 400 m (Kielland, 1990d).

Habits: A relatively common species, which probably flies on the tops of tall forest trees, males being seen when they come down to damp patches to drink. Females are rarely seen (Larsen, 1991c; Larsen, 2005a).

Early stages: Nothing published.

Larval food:

Mundulea species (Fabaceae) [Heath *et al.*, 2002: 108].

melania Capronnier, 1889 (as sp. of *Lycaena*). *Bulletin de la Société Entomologique de Belgique* **1889**: 120 (118-127). [Democratic Republic of Congo]: “Lopori Shoven, et Lopori Strand”.

stratola Holland, 1891 (as sp. of *Nacaduba*). *Psyche, a Journal of Entomology. Cambridge, Mass.* **6**: 52 (50-53). Gabon: “region of the upper waters of the Ogové river”.

****Pseudonacaduba sichela* (Wallengren, 1857)#**

Dusky Line Blue



Male Dusky Blue (*Pseudonacaduba sichela*)
Image courtesy Steve Woodhall

Lycaena sichela Wallengren, 1857. *Öfversigt af Kongl. Vetenskaps-Akademiens Förhandlingar. Stockholm* annis 1838-1845. Collecta (n.s.) **2** (4): 37 (55 pp.).

Lycaena sichela Wallengren, 1857. Trimen & Bowker, 1887b.

Pseudonacaduba sichela Wallengren. Swanepoel, 1953a.

Pseudonacaduba sichela (Wallengren, 1857). Dickson & Kroon, 1978.
Pseudonacaduba sichela (Wallengren, 1857). Pringle *et al.*, 1994: 240.
Pseudonacaduba sichela Wallengren, 1857. d’Abrera, 2009: 804.



Pseudonacaduba sichela sichela. Male (Wingspan 27 mm). Left – upperside; right – underside.
 Rustenburg, North West, South Africa, 7 November 1973. M. Williams.
 Images M.C.Williams ex Williams Collection.



Pseudonacaduba sichela sichela. Female (Wingspan 27 mm). Left – upperside; right – underside.
 Utopia Resort, North West Province, South Africa. 24 September 2005. J. Dobson.
 Images M.C. Williams ex Dobson Collection.

Alternative common names: Dusky Line Blue; African Line Blue.

Type locality: [South Africa]: “Caffraria”.

Holotype in the Swedish Natural History Museum (images available at www2.nrm.se/en/lep_nrm/s).

Diagnosis: The dark blue upperside of the male and the fine irregular white lines on the underside of the wings are characteristic (Pringle *et al.*, 1994).

Distribution: Sub-Saharan Africa, including Senegal, Gambia, Guinea-Bissau (Mendes *et al.*, 2008), Guinea, Burkina Faso, Sierra Leone, Liberia, Ivory Coast, Ghana, Togo, Benin, Nigeria, Cameroon, Democratic Republic of Congo, Uganda, Kenya, Tanzania, Zambia, Angola, Mozambique (Congdon *et al.*, 2010), Zimbabwe, Botswana, Namibia, South Africa, Swaziland (Duke *et al.*, 1999). Also in Madagascar and Mauritius.

Habitat: Forest and savanna. In Tanzania at altitudes from sea-level to 2 000 m (Kielland, 1990d).

Habits: A common species (Kielland, 1990d). Usually both sexes spend most of the time flying around the crown of tall trees, where they are not easily observed. Males are usually encountered while mud-puddling but both sexes also come to flowers, especially those of *Acacia* species. On Mauritius individuals of subspecies *reticulum* were frequently seen feeding from the flowers of *Terminalia* (Williams, 2007).

Flight period: The summer months. On the KwaZulu-Natal coast it also flies in winter (Pringle *et al.*, 1994).

Early stages:

Clark & Dickson, 1971: 52 [as *Pseudonacaduba sichela sichela*; Berea, Durban, KwaZulu-Natal].

“**Egg.** 0.4 mm diam. x 0.25 mm high. Pale blue-green with white ribbing and moles, the ribbing forming 16 reversed involute curves and ending abruptly a considerable distance above the base of the egg. A single egg hatched 6 days after it was laid. **Larva.** 1st instar 0.8 mm, on emergence. Pale yellow, with similarly coloured neck- and anal-shields (the anal-shield small and circular) and with light or fairly light coloured setae, as shown in figs 3-4 of the accompanying plate. The larva concerned unfortunately died soon after emergence.”

Larval food:

Combretum zeyheri Sond. (Combretaceae) [Otto *et al.*, 2013: 72].

Mundulea sericea (Willd.) A.Chev. (Fabaceae) (possibly) [Murray, 1935; as *Mundulea suberosa* (DC.) Benth., cited by Clark & Dickson, 1971: 52].

Pseudonacaduba sichela sichela (Wallengren, 1857)#

Dusky Line Blue

Lycaena sichela Wallengren, 1857. *Öfversigt af Kongl. Vetenskaps-Akademiens Förhandlingar. Stockholm* annis 1838-1845. Collecta (n.s.) 2 (4): 37 (55 pp.).

Lycaena sichela Wallengren, 1857. Trimen & Bowker, 1887b.

Pseudonacaduba sichela Wallengren. Swanepoel, 1953a.

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Pseudonacaduba sichela sichela (Wallengren, 1857). Pringle *et al.*, 1994: 240.

Pseudonacaduba sichela sichela Wallengren, 1857. d'Abrera, 2009: 804.



Pseudonacaduba sichela sichela. Male (Wingspan 27 mm). Left – upperside; right – underside. Rustenburg, North West, South Africa, 7 November 1973. M. Williams. Images M.C.Williams ex Williams Collection.



Pseudonacaduba sichela sichela. Female (Wingspan 27 mm). Left – upperside; right – underside. Utopia Resort, North West Province, South Africa. 24 September 2005. J. Dobson. Images M.C. Williams ex Dobson Collection.

Type locality: [South Africa]: “Caffraria”.

Distribution: Sub-Saharan Africa, including Senegal, Gambia, Guinea-Bissau (Mendes *et al.*, 2008) Guinea, Burkina Faso, Sierra Leone, Liberia, Ivory Coast, Ghana, Togo, Benin (throughout), Nigeria (south and Cross River loop), Cameroon, Uganda, Kenya (widespread), Tanzania, Malawi, Zambia (widespread), Angola, Mozambique, Zimbabwe, Botswana (north and east), Namibia (north), South Africa (Limpopo Province, Mpumalanga, North West Province, Gauteng, Free State Province, KwaZulu-Natal, Eastern Cape Province), Swaziland (Duke *et al.*, 1999).

Specific localities:

Gambia – Pirang, Brusubi, Sanyang, Kaur, Janjanbureh Island, Basse (Jon Baker, pers. comm, May 2020).

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

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

Ghana – Bobiri Butterfly Sanctuary (Larsen *et al.*, 2007); Boabeng-Fiema Monkey Sanctuary (Larsen

et al., 2009).

Benin – Houeyogbe Forest (Coache & Rainon, 2016); see Coache *et al.* (2017).

Cameroon – Rio del Rey (Butler, 1888); Korup (Larsen, 2005a).

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

Uganda – Semuliki N.P. (Davenport & Howard, 1996).

Kenya – Throughout (Larsen, 1991c).

Tanzania – Widespread but scarce in the Northern Highlands (Kielland, 1990d); Rau Groundwater Forest Reserve near Moshi (Cordeiro, 1995).

Malawi – Nyika N.P. (J. Timberlake, pers. comm., 2019).

Zambia – Ikelenge (Heath *et al.*, 2002); Lusaka (Heath *et al.*, 2002); Chingola (Heath *et al.*, 2002); Mufulira (Heath *et al.*, 2002); Mbala (Heath *et al.*, 2002); Nyika (Heath *et al.*, 2002).

Angola – Leba Pass Viewpoint [15 04 43S 13 13 53E] (Willis, 2009).

Mozambique – Maputo (Druce, 1887); Mt Namuli (Congdon *et al.*, 2010); Mt Mabu (Congdon *et al.*, 2010); Mt Yao [-12.4432 36.5114] (Congdon & Bayliss, 2013).

Botswana – Kolobeng River (Larsen, 1991); Gabane (Larsen, 1991); Maun (Larsen, 1991); Sepupa (Larsen, 1991); Tsao (Larsen, 1991); Gemsbok Pan (Larsen, 1991); Delta Camp, Okavango (Larsen, 1991; single male); 30 km west of Kanye (Larsen, 1991).

Limpopo Province – Warmbaths (Swanepoel, 1953); Lekgalameetse Nature Reserve (“Malta Forest”) (Swanepoel, 1953); Woodbush (Swanepoel, 1953); Polokwane (Swanepoel, 1953); Munnik (Swanepoel, 1953); Zoutpansberg (Swanepoel, 1953); Doorndraai Dam Nature Reserve (Warren, 1990); Highlands Wilderness (Bode & Bode, unpublished checklist); Soetdoring Farm [-24.561 28.233] (A. Mayer, pers comm. 2015).

Mpumalanga – Volksrust (Swanepoel, 1953).

North West Province – Zeerust (Swanepoel, 1953); Utopia Resort (C. Dobson, 2006); Borakalalo Nature Reserve (J. Dobson, unpublished, 2009); Breednek (25 52S; 27 27E) (Williams 30 Nov. 2008).

Gauteng – Pretoria (Swanepoel, 1953; male illustrated above); Hammanskraal (Swanepoel, 1953).

Free State Province – Bloemfontein (Swanepoel, 1953).

KwaZulu-Natal – Durban (Swanepoel, 1953); Umhloti (Swanepoel, 1953); Balgowan (Swanepoel, 1953); Karkloof (Swanepoel, 1953); Kosi Bay Nature Reserve (Pringle & Kyle, 2002).

Eastern Cape Province – Port Elizabeth (Bowker); East London (Quickelberge).

dexamene Druce, 1887 (as sp. of *Nacaduba*). *Entomologist's Monthly Magazine* **23**: 203 (203-205). [Mozambique]: “Delagoa Bay”.

docilis Butler, 1888 (as sp. of *Lycaenesthes*). *Proceedings of the Zoological Society of London* **1887**: 571 (567-574). Cameroon: “Rio del Rey”.

Pseudonacaduba sichela reticulum (Mabille, 1877)

Island Dusky Line Blue

Lycaena reticulum Mabille, 1877. *Bulletin de la Société Entomologique de France* (5) **7**: 72 (71-73).
Pseudonacaduba sichela reticulum Mabille, 1877. d'Abrera, 2009: 804.

Type locality: Madagascar.

Distribution: Madagascar, Mauritius.

Specific localities:

Mauritius – First collected in 2000 at St Antoine (Williams, 2007); Grand Gaube (Lawrence, 2016).

Note: It is not certain whether material collected in Mauritius by S. Collins is genetically identical to that from Madagascar. Further work will be necessary to establish whether the Mauritian material is referable to *reticulum* or to another (undescribed) taxon (Lees *et al.*, 2003).