

Genus *Larsenia* Chiba, Fan & Sáfíán, 2016

Fan *et al.*, 2016. *PLoS ONE* July 2016.

Type-species: *Hesperia holtzi* Plötz, 1883, by original designation.

The genus *Larsenia* belongs to the Family Hesperidae Latreille, 1809; Subfamily Hesperinae Latreille, 1809; Tribe Baorini Doherty, 1886. Other genera in the Tribe Baorini are *Brusa*, *Zenonia*, *Gegenes*, *Afrogegenes*, *Parnara*, *Borbo* and *Pelopidas*.

Larsenia (Swifts) is an Afrotropical genus containing three species.

**Larsenia holtzi* (Plötz, 1883)#

Variable Swift

Hesperia holtzi Plötz, 1883. *Stettiner Entomologische Zeitung* 44: 44 (26-64, 195-233).

Pelopidas holtzii (Plötz, 1883). Evans, 1937. [misspelling of species name]

Pelopidas holtzii Plötz. Swanepoel, 1953a. [misspelling of species name]

Borbo holtzii (Plötz, 1882). Dickson & Kroon, 1978. [misspelling of species name; date of authorship erroneous]

Borbo holtzii (Plötz, 1882). Kielland, 1990d. [misspelling of species name; date of authorship erroneous]

Borbo holtzii (Plötz, 1883). Pringle *et al.*, 1994: 335. [misspelling of species name]

Larsenia holtzi (Plötz, 1883). Fan *et al.*, 2016: 10.



Larsenia holtzi. Male (Wingspan 37 mm). Left – upperside; right – underside.
Mphaphuli Nature Reserve, Limpopo Province, South Africa. 18 June 2005. J. Dobson.
Images M.C. Williams ex J. Dobson Collection.



Larsenia holtzi. Female (Wingspan 40 mm). Left – upperside; right – underside.
Manguzi Forest, KwaZulu-Natal, South Africa. 22 May 2004. J. Dobson.
Images M.C. Williams ex J. Dobson Collection.

Alternative common name: Verneuker-ratsvlicër (Afrikaans).

Type locality: Angola.

Diagnosis: The white markings of the upperside are markedly reduced. The spots on the underside of

the hindwing are variable: in the winter brood they are generally dark, whereas in the summer brood they are white-centered. In dry season specimens the ground colour on the underside of the hindwing and the apex of the forewing is lilac-grey. As in *Larsenia gemella* the palpi are grey beneath but *Larsenia holtzi* has more spots on the underside of the hindwing (Pringle *et al.*, 1994).

Distribution: Sub-Saharan Africa, including Senegal (south-east), Guinea-Bissau (Larsen, 2005a), Guinea, Sierra Leone, Liberia, Ivory Coast, Ghana, Benin, Nigeria, Gabon, Angola, Congo, Uganda, Kenya, Tanzania, Malawi, Zambia, Mozambique, Zimbabwe, South Africa (Limpopo Province, Mpumalanga, KwaZulu-Natal – north), Swaziland.

Specific localities:

Ghana – Boabeng-Fiema Monkey Sanctuary (Larsen *et al.*, 2009).

Benin – Houeyogbe Forest (Coache & Rainon, 2016).

Gabon – Port Gentil (Picard, 1949); Pongara (Vande weghe, 2010); Iguela (Vande weghe, 2010); Lope (Vande weghe, 2010).

Angola – Bie Province; Huambo Province; Huila Province; Kwanza Sul Province; Lunda Sul Province; Moxico Province (Mendes *et al.*, 2013).

Kenya – Mombasa (Larsen, 1991c); Mumias (Larsen, 1991c); South Kavirondo (Larsen, 1991c).

Tanzania – Widespread but commoner in the west (Kielland, 1990d); Madibira (Gaede, 1917).

Malawi – Zomba Mountain (Lathy, 1901).

Zambia – Mwinilunga (Heath *et al.*, 2002); 80 km south of Mwinilunga (Heath *et al.*, 2002); Kabompo Gorge (Heath *et al.*, 2002); Solwezi (Heath *et al.*, 2002); West Lumwana River (Heath *et al.*, 2002); Chingola (Heath *et al.*, 2002); Mufulira (Heath *et al.*, 2002); Kitwe (Heath *et al.*, 2002); Ndola (Heath *et al.*, 2002); Chisamba (Heath *et al.*, 2002); Lusaka (Heath *et al.*, 2002); Changwena Falls (Heath *et al.*, 2002); Mkushi River (Heath *et al.*, 2002); Chibembe (Heath *et al.*, 2002); Lumangwe Falls (Heath *et al.*, 2002); Mporokoso (Heath *et al.*, 2002); Kasama (Heath *et al.*, 2002); Shiwa Ngandu (Heath *et al.*, 2002); Mbala (Heath *et al.*, 2002).

Zimbabwe – Lundi (male illustrated above).

Limpopo Province – Lekgalameetse Nature Reserve (“Malta Forest”) (Swanepoel, 1953); Duiwelskloof (Swanepoel, 1953); Munnik (Swanepoel, 1953); Polokwane (Swanepoel, 1953); Sibasa (Swanepoel, 1953); Vivo (Swanepoel, 1953); Soetdoring Farm [-24.561 28.233] (A. Mayer, pers comm. 2015).

Mpumalanga – White River (Swanepoel, 1953).

Habitat: Frost-free savanna. In Tanzania from 300 to 2 200 m (Kielland, 1990d).

Habits: A fairly scarce skipper (Larsen, 2005a). Flies fast, as for most species in the genus. Often seen feeding from flowers or at muddy places. Males may hilltop but generally establish territories anywhere in the habitat, particularly on the edges of the bush, where they perch on shrubs (Pringle *et al.*, 1994).

Flight period: All year, but often more common in winter (Pringle *et al.*, 1994).

Early stages: Nothing published.

Larval food:

(Probably) grasses (Poaceae) [Dickson & Kroon, 1978: 200].

Rottboellia cochinchinensis (Lour.) Clayton (Poaceae) [Vuattoux, 1999; Lamto, Ivory Coast; as *Rottboellia megaphylla*].

aurantia Mabilite, 1883 (as sp. of *Pamphila*). *Bulletin de la Société Entomologique de Belgique* **27**: 64 (51-78). “Afrique Orientale”.

cana Lathy, 1901 (as sp. of *Baoris*). *Transactions of the Entomological Society of London* **1901**: 35 (19-36). [Malawi]: “Zomba”.

caesia Gaede, 1917 (as sp. of *Baoris*). *Internationale Entomologische Zeitschrift* **11**: 30 (29-31). [Tanzania]: “Madibira, Deutsch-O.-Afrika”.

aequalis Gaede, 1917 (as sp. of *Baoris*). *Internationale Entomologische Zeitschrift* **11**: 31 (29-31). [Tanzania]: “Madibira, Deutsch-O.-Afrika”.

rougeoti Picard, 1949 (as sp. of *Pelopidas*). *Revue Française d'Entomologie* **16**: 151 (147-152). Gabon: “Port Gentil”.

**Larsenia gemella* (Mabille, 1884)#

Twin Swift

Pamphila gemella Mabille, 1884. *Annales de la Société Entomologique de Belgique* **28**: 187 (184-191).

Pelopidas gemella (Mabille, 1884). Evans, 1937.

Pelopidas gemella Mabille. Swanepoel, 1953a.

Borbo gemella (Mabille, 1884). Dickson & Kroon, 1978.

Borbo gemella (Mabille, 1884). Pringle *et al.*, 1994: 335.

Larsenia gemella (Mabille, 1884). Fan *et al.*, 2016: 10.



Larsenia gemella. Male (Wingspan 36 mm). Left – upperside; right – underside.
Manguzi Forest, KwaZulu-Natal, South Africa. 22 May 2004. J. Dobson.
Images M.C. Williams ex J. Dobson Collection.



Larsenia gemella. Female (Wingspan 41 mm). Left – upperside; right – underside.
Strijdom Tunnel, Mpumalanga Province, South Africa. 16 June 2004. J. Dobson.
Images M.C. Williams ex J. Dobson Collection.

Alternative common name: Dubbelkol-ratsvlieër (Afrikaans).

Type locality: Madagascar.

Diagnosis: The underside of the hindwing has three rather indistinct white spots. Similar to *Borbo borbonica* but the apex of the forewing is less pointed and the underside of the hindwing is rather greyish brown. This species and *Larsenia holtzi* have palps which are grey on their ventral surface (Pringle *et al.*, 1994).

Distribution: Sub-Saharan Africa, including Senegal, Gambia, Guinea-Bissau (Larsen, 2005a), Guinea, Burkina Faso, Sierra Leone, Ivory Coast, Ghana, Togo, Benin, Nigeria, Cameroon, Equatorial Guinea, Angola, Uganda, Kenya, Tanzania, Malawi, Zambia, Mozambique, Zimbabwe, Botswana (north), Namibia (north), South Africa (Limpopo Province, Mpumalanga, KwaZulu-Natal, Eastern Cape Province), Swaziland, Saudi Arabia (south-west), Yemen, Madagascar, Comoro Islands, Seychelles.

Specific localities:

Ivory Coast – Abidjan (Larsen, 2005a).

Ghana – Debiso, Bia National Park (Larsen, 2005a); Accra (Larsen, 2005a); Boabeng-Fiema Monkey Sanctuary (Larsen *et al.*, 2009).

Benin – Houeyogbe Forest (Coache & Rainon, 2016).

Nigeria – Ekonganuka, Oban Hills (Larsen, 2005a); Lagos (Larsen, 2005a).

Angola – Bengo Province; Huambo Province; Luanda Province; Malanje Province; Namibe Province (Mendes *et al.*, 2013).

Kenya – Nairobi (Larsen, 1991c).

Tanzania – Throughout (Kielland, 1990d); Katavi National Park (Fitzherbert *et al.*, 2006).

Malawi – Mt Mulanje (Congdon *et al.*, 2010); Zomba Mountain (Congdon *et al.*, 2010).

Zambia – Victoria Falls (Heath *et al.*, 2002); Mpata (Heath *et al.*, 2002).

Botswana – Okavango Delta (Pringle *et al.*, 1994); Kasane (Pinhey); Shakawe (Larsen, 1991); Tsodilo Hills (Larsen, 1991); Maun (Larsen, 1991); Moremi (Larsen, 1991); Chobe (Larsen, 1991); Francistown (Larsen, 1991); Serowe (Larsen, 1991); Selibe-Phikwe (Larsen, 1991).

Limpopo Province – Warmbaths (Swanepoel, 1953); Acornhoek (Swanepoel, 1953); Lekgalameetse Nature Reserve (“Malta Forest”) (Swanepoel, 1953); Mokeetsi (Swanepoel, 1953); Sibasa (Swanepoel, 1953); Wyliespoort (Swanepoel, 1953); Saltpan (Swanepoel, 1953); Dendron (Swanepoel, 1953); Potgietersrus (Swanepoel, 1953); Percy Fyfe Nature Reserve (Warren, 1990); Punda Milia (male illustrated above).

Mpumalanga – Barberton (Swanepoel, 1953); Lydenburg district (Swanepoel, 1953).

KwaZulu-Natal – Durban (Swanepoel, 1953); Eshowe (Swanepoel, 1953); St Lucia Bay (Swanepoel, 1953); Kosi Bay Nature Reserve (Pringle & Kyle, 2002); Tembe Nature Reserve (Pringle & Kyle, 2002); Ndumo Nature Reserve (Pringle & Kyle, 2002).

Eastern Cape Province – Port St Johns (Pringle *et al.*, 1994).

Seychelles – Mahe (Lawrence, 2014); Silhouette (Lawrence, 2014); Praslin (Lawrence, 2014); La Digue (Lawrence, 2014); Aride (Lawrence, 2014); Cousine (Lawrence, 2014); Coetivy (Lawrence, 2014); Alphonse (Lawrence, 2014); Platte (Lawrence, 2014); Aldabra Atoll (Lawrence, 2014).

Habitat: Frost-free savanna and forest (Pringle *et al.*, 1994). In West Africa in Guinea and Sudan savanna (Larsen, 2005a). In Madagascar in transformed grasslands, croplands and anthropogenic environments (Lees *et al.*, 2003). In Tanzania from sea-level to 2 150 m (Kielland, 1990d).

Habits: Generally a common butterfly (Larsen, 1991c). The flight is low and fast. Settles often, on the ground, stones or grass stems. Flowers are visited and males mud-puddle. Males hilltop, often from as early as 07:00 (Dickson & Kroon, 1978). In forest and dense bush, paths and clearings are selected as territorial sites.

Flight period: All year, with peak emergence in March and April (Pringle *et al.*, 1994). In Seychelles most common from November to January (Lawrence, 2014).

Early stages:

Hargreaves, 1939

Cock & Congdon, 2012 [larva] [as *Borbo gemella*]

Larval food:

Digitaria atrofusca (Hack.) A. Camus (= *Digitaria seminuda* Stapf) species (Poaceae) [Vuattoux, 1999; Ivory Coast]

Ehrharta erecta Lam. (Poaceae) [Murray, 1959].

Ehrharta species (Poaceae) [Dickson & Kroon, 1978: 200; in captivity].

Saccharum officinarum L. (Poaceae) (sugar cane) [Hargreaves, 1939; Uganda].

Setaria sp. (Poaceae) [Vuattoux, 1999; Ivory Coast].

Stenotaphrum dimdiatum (Poaceae) [Lawrence, 2014: 35].

Triticum aestivum L. (= *Triticum sativum* Lam.) (wheat) (Poaceae) [Le Pelley; Kenya].

Zea mays L. (Poaceae) [Hargreaves, 1939; Uganda].

Relevant literature:

Lawrence, 2009 [Biometrics of a Seychelles population].

Lawrence, 2004 [Biology of a Seychelles population].

****Larsenia perobscura* (Druce, 1912)**

Small Swift

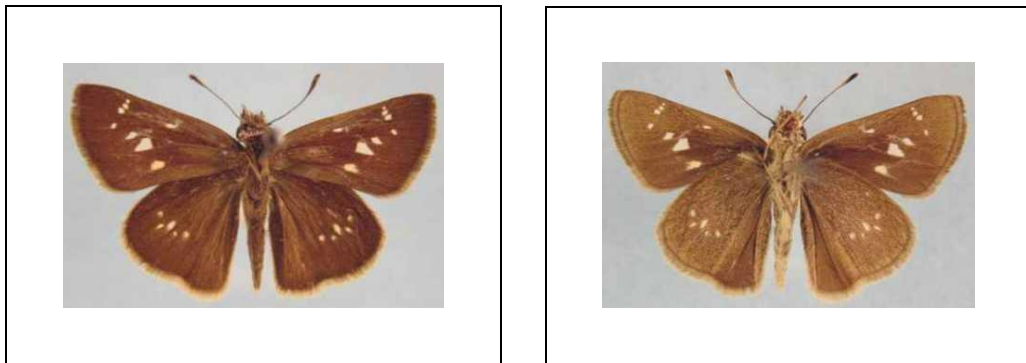
Parnara perobscura Druce, 1912. *Annals and Magazine of Natural History* (8) 9: 504 (500-504).

Pelopidas perobscura (Druce, 1912). Evans, 1937.

Larsenia perobscura (Druce, 1012). Fan *et al.*, 2016: 10.



Larsenia perobscura. Male. Left – upperside; right – underside.
Yekepah, Nimba Mountains, Liberia. 10 January 2014. J. Dobson.
Images M.C. Williams ex Dobson Collection.



Larsenia perobscura. Female. Left – upperside; right – underside.
Wingspan: 29mm. Mwinilunga District, Zambia. 22 March, 1981.
A.J. Gardiner. (Gardiner Collection).

Type locality: Ghana: “Addah, West Africa”.

Distribution: Senegal, Gambia, Guinea, Sierra Leone, Liberia, Ivory Coast, Ghana, Togo, Benin, Nigeria, Cameroon, Gabon, Angola, Sao Tome & Principe (Sao Tome), Congo, Central African Republic, Democratic Republic of Congo (Shaba), Sudan (south), Uganda, Ethiopia, Kenya (south-west), Tanzania, Malawi, Zambia (north), Mozambique.

Specific localities:

Ghana – Addah (TL); Atewa Range (Larsen, 2005a); Bobiri Butterfly Sanctuary (Larsen *et al.*, 2007); Boabeng-Fiema Monkey Sanctuary (Larsen *et al.*, 2009).

Togo – Bismarckburg (Gaede, 1916).

Benin – Houeyogbe Forest (Coache & Rainon, 2016).

Nigeria – Oban Hills (Larsen, 2005a).

Cameroon – Jaunde-Bezirk (Gaede, 1916); Korup (Larsen, 2005a).

Gabon – Pointe Pongara (Vande weghe, 2010); Lope (Vande weghe, 2010); Bateke Plateau (Vande weghe, 2010).

Angola – Uige Province (Mendes *et al.*, 2013).

Kenya – Kisumu (Larsen, 1991c); Kisii (Larsen, 1991c); Suna (Larsen, 1991c).

Tanzania – West (Kielland, 1990d); Nguru Mountains (Kielland, 1990d); Kanga Mountains (Kielland, 1990d); Mufindi in the Uzungwa Range (Kielland, 1990d).

Zambia – Ikelenge (Heath *et al.*, 2002); Mwinilunga (Heath *et al.*, 2002; female illustrated above); Kasama (Heath *et al.*, 2002); Chingola (Heath *et al.*, 2002); Mutundu South (male illustrated above).

Mozambique – Mt Namuli (Congdon *et al.*, 2010).

Habitat: Moist savanna, with some capacity to colonize degraded forest (Larsen, 2005a). In Tanzania from 800 to 1 900 m (Kielland, 1990d).

Habits: Populations are localized but the butterfly may be common where it occurs (Larsen, 2005a). Individuals fly low down and readily visit flowers (Larsen, 2005a).

Early stages: Nothing published.

Larval food:

Species of grass (Poaceae) [Heath *et al.*, 2002].

gemina Gaede, 1916 (as sp. of *Parnara*). *Internationale Entomologische Zeitschrift* **9**: 126 (105-106, 109-112, 125-126). Cameroon: “Jaunde-Bezirk, Kamerun”.

trigemina Gaede, 1916 (as sp. of *Parnara*). *Internationale Entomologische Zeitschrift* **9**: 126 (105-106, 109-112, 125-126). Togo: “Bismarckburg”.

karschi Aurivillius, 1925 *in* Seitz, 1908-25 (as f. of *Parnara detecta*). *Die Gross-Schmetterlinge der Erde*, Stuttgart (2) **13** *Die Afrikanischen Tagfalter*: 537 (614 pp.). Togo; “CongoDistrict”. Holotype in the Swedish Natural History Museum (images available at www2.nrm.se/en/lep_nrm/d).

falarus Mabille; Aurivillius, 1925 *in* Seitz, 1908-25. *Die Gross-Schmetterlinge der Erde*, Stuttgart (2) **13** *Die Afrikanischen Tagfalter*: 537 (614 pp.). [Invalid; manuscript name introduced in synonymy.]