# Genus Chloroselas Butler, 1886

*Gems*

**Proceedings of the Zoological Society of London** *1885* [1886]: 765 (756-776).

Type-species: *Chloroselas esmeralda* Butler, 1886, by original designation.

= *Desmolycaena* Trimen, 1898. *Transactions of the Entomological Society of London* *1898*: 7 (1-16). Type-species *Desmolycaena maoensis* Trimen, 1898, by original designation. Treated as a good genus in Ackery *et al.*, 1995: 562 but regarded as a synonym of *Chloroselas* Butler by Heath, 1997 (*Metamorphosis Occasional Supplement* No. 2: 12 (1-60)).


The genus *Chloroselas* belongs to the Family Lycaenidae Leach, 1815; Subfamily Aphnaeinae Distant, 1884; Tribe Cigaritini ; Subtribe Cigaritina . The other genera in the Tribe Cigaritini in the Afrotropical Region are *Cigaritis, Chrysoritis, Pseudaletis, Crudaria* and *Lipaphnaeus*.

*Chloroselas* (*Gems*) is a purely Afrotropical genus containing 15 species.

## Chloroselas arabica (Riley, 1932)


Magadi Road, near Kisames, Kenya. 15 June 2002. A. Gardiner.

Images M.C. Williams ex Gardiner Collection.

**Type locality:** Yemen: “Hadramault”.

**Distribution:** Yemen, Somalia (north).

**Specific localities:**


**Habitat:** Nothing published.

**Habits:** Nothing published.

**Early stages:** Nothing published.

**Larval food:** Nothing published.

**Associated ant:** Nothing published.
**Chloroselas argentea** Riley, 1932
Silver Gem

*Chloroselas argentea* Riley, 1932. *Annals and Magazine of Natural History* (10) **10**: 145 (137-152).

**Type locality:** [Zimbabwe]: “Xmas Pass”.
**Distribution:** Zimbabwe (Mutare and Harare districts).
**Specific localities:**
Zimbabwe – Christmas Pass (TL); Cross Kopje at Mutare (Pringle *et al.*, 1994); Harare (Pringle *et al.*, 1994); Arcturus (Pringle *et al.*, 1994); Chimanimani Mountains (Pringle *et al.*, 1994).

**Habitat:** *Brachystegia* woodland (Pringle *et al.*, 1994).

**Habits:** Like those of *Chloroselas pseudozeritis*. Specimens often fly high up in the tree-tops and are difficult to spot because of their small size and fast flight (Pringle *et al.*, 1994).

**Flight period:** October to April (Pringle *et al.*, 1994).
**Early stages:** Nothing published.

**Larval food:**
*Brachystegia spiciformis* Benth. (Fabaceae) [Pringle *et al.*, 1994: 174; locality not specified].
(Possibly) *Acacia* species (Fabaceae) [Pennington, *vide* Pringle *et al.*, 1994: 174; Chimanimani Mountains, Zimbabwe].
**Associated ant:** Nothing published.

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**Chloroselas azurea** Butler, 1900
Azure Gem

*Chloroselas azurea* Butler, 1899. d’Abrera, 2009: 708. [date of authorship erroneous].

**Type locality:** [Kenya]: “Slopes of Nthatha Hill, Kitwi, 4,700 ft.”.
**Distribution:** Kenya (central, east), Tanzania (north).
**Specific localities:**
Kenya – Nthatha Hill, Kitwi, 4,700 ft (TL); Tana River (Larsen, 1991c); Rabai (Larsen, 1991c); Ukambani (Larsen, 1991c).
Tanzania – Oldeani, 1 300 m (Kielland, 1990d).

**Habitat:** Dry savanna.

**Habits:** A rare species that occurs in localized colonies (Larsen, 1991c). Specimens are occasionally found feeding from flowers (Larsen, 1991c).
**Early stages:**
Congdon *et al.*, 2017 [final instar larva].

**Larval food:**
*Acacia zanzibarica* (S. Moore) Taub. (Fabaceae) [Congdon *et al.*, 2017; Mkwaga, Tanzania].
**Associated ant:** Nothing published.

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**Chloroselas esmeralda** Butler, 1886
Somali Gem

*Chloroselas esmeralda* Butler, 1885. d’Abrera, 2009: 709. [date of authorship erroneous].
**Type locality:** Somalia: “Bunder Maria”.

**Distribution:** Somalia, Ethiopia (Larsen, 1991c), Kenya, Uganda, Tanzania, Yemen, Oman.

**Habitat:** Arid savanna.

**Habits:** Generally rare but may be locally common if a colony is found (Larsen, 1991c).

**Early stages:** Nothing published.

**Larval food:** Possibly *Vachellia tortilis* (Forssk.) Galasso & Banfi (Fabaceae) [Larsen, 1991c: 187; as sp. of *Acacia*; for subspecies *bilqis* Larsen].

**Associated ant:** Nothing published.

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**Chloroselas esmeralda esmeralda** Butler, 1886


Type locality: Somalia: “Bunder Maria”.

Distribution: Somalia, Ethiopia, Kenya, Uganda (west), Tanzania (north).

Specific localities:
- Somalia – Bunder Maria (TL).
- Kenya – Rabai (Larsen, 1991c); Garissa (Larsen, 1991c); Kulal (Larsen, 1991c); Kacheliba (Larsen, 1991c).

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**Chloroselas esmeralda bilqis** Larsen, 1983


Type locality: Yemen: “Yemen Arab Republic, Hajjah, Wadi Sharas, 900 m.”.

Distribution: Yemen, Oman.

Specific localities:
- Yemen – Hajjah, Wadi Sharas, 900 m (TL).

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**Chloroselas mazoensis** (Trimen, 1898)

Purple Gem
Male Purple Gem (*Chloroselas mazoensis*), Phinda Reserve, KwaZulu-Natal.
Image courtesy Steve Woodhall.


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Images M.C. Williams ex Gardiner Collection.

*Chloroselas mazoensis*. Female. Left – upperside; right – underside.
Nyamgombe, north-west Zambia. 29 September 2011. A. Gardiner.
Images M.C. Williams ex Gardiner Collection.

**Type locality**: [Zimbabwe]: “Mazoe River district of Mashunaland”.


**Specific localities**:
Zambia – Kamaila Forest Reserve, north of Lusaka (Heath *et al*., 2002); Ndola (Heath *et al*., 2002); Chisamba (Heath *et al*., 2002).
**Chloroselas minima** Jackson, 1966

Tiny Gem


**Type locality:** Kenya: “Tana, Garissa-Bura”.

**Distribution:** Kenya (east, coast), Tanzania (north).

**Specific localities:**
- Kenya – Tana, Garissa-Bura (TL); Rabai (Larsen, 1991c); Ukambani district (Larsen, 1991c); Galana (Larsen, 1991c); Mrima Hill area (Larsen, 1991c); Mariakani (Larsen, 1991c); Arabuko-Sokoke (Larsen, 1991c).
- Tanzania – Lake Tanganyika (Kielland, 1978); Meto Hills (Kielland, 1990d; rare).

**Habitat:** Arid savanna.

**Habits:** Specimens are sometimes encountered singly, feeding from flowers, in open grassland (Larsen, 1991c). They appear to fly only after rain, when the grass is green (Larsen, 1991c).

**Early stages:** Nothing published.

**Larval food:** Nothing published.

**Associated ant:** Nothing published.

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**Chloroselas ogadenensis** Jackson, 1966


**Type locality:** Somalia: “Ogaden, Dagahbur”.

**Distribution:** Somalia. Known only from the type locality.

**Specific localities:**
- Somalia – Dagahbur, Ogaden (TL).

**Habitat:** Nothing published.

**Habits:** Nothing published.

**Early stages:** Nothing published.

**Larval food:** Nothing published.

**Associated ant:** Nothing published.
**Chloroselas overlaeti** Stempffer, 1956


*Chloroselas overlaeti* Male. Left – upperside; right – underside.
Images M.C. Williams ex Gardiner Collection.

**Type locality**: [Democratic Republic of Congo]: “rivière Lupweshi, Lualaba”.

**Distribution**: Democratic Republic of Congo (south-east – Lualaba), Tanzania (west), Zambia.

**Specific localities**:
Democratic Republic of Congo – Lupweshi River, Lualaba (TL).
Tanzania – Mpanda (Kielland, 1990d); Kigoma (Kielland, 1990d).
Zambia – Ikelenge (Heath *et al*., 2002); Kamaila Forest Reserve, north of Lusaka (Heath *et al*., 2002);
Ndola (Heath *et al*., 2002); Mufulira (Heath *et al*., 2002); 18 km west of Solwezi (male specimen illustrated, above).

**Habitat**: Woodland (Kielland, 1990d).

**Habits**: An uncommon and local species (Kielland, 1990d).

**Early stages**: Nothing published.

**Larval food**: Nothing published.

**Associated ant**: Nothing published.

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**Chloroselas pseudozeritis** (Trimen, 1873)

*Brilliant Gem*

Male (left) and female (right) Brilliant Gem (*Chloroselas pseudozeritis*).
Images courtesy Steve Woodhall.

**Aphnaeus pseudo-zeritis** Trimen, 1873. Trimen & Bowker, 1887b.

**Chlorozelas pseudozeritis** Trimen. Swanepoel, 1953a. [misspelling of Chloroselas]

**Chloroselas pseudozeritis** (Trimen, 1873). Dickson & Kroon, 1978.


**Chloroselas pseudozeritis** Trimen, 1873. d’Abrera, 2009: 708.

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**Chloroselas pseudozeritis pseudozeritis**. Male (Wingspan 21 mm). Left – upperside; right – underside.
Images M.C. Williams ex Gardiner Collection.

**Chloroselas pseudozeritis pseudozeritis**. Female (Wingspan 23 mm). Left – upperside; right – underside.
Images M.C. Williams ex Williams Collection.

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**Type locality:** [South Africa]: “Bathurst, Cape Colony”.

**Distribution:** Central African Republic, Ethiopia, Kenya, Tanzania, Malawi, Zambia, Mozambique, Zimbabwe, Botswana (Kielland, 1990d), South Africa, Swaziland.

**Habitat:** Deciduous woodland and thornbush savannas. In Tanzania it flies at altitudes between 1 000 and 1 500 m (Kielland, 1990d).

**Habits:** A rare species that occurs in localised colonies associated with one or more large acacia trees. Sometimes the colonies are quite large. Specimens whirl around the tops of the acacia trees, perching at the ends of small twigs (Larsen, 1991c; Pringle *et al.*, 1994).

**Flight period:** All year, with October and May the most favourable months (Pringle *et al.*, 1994).

**Early stages:**


Eggs are laid on young shoots of *Acacia stenocarpa* [now *Vachellia hockii*]. Young larvae found in massed leaflets and twigs, but later found in cracks in bark, where they pupate. Attended by *Crematogaster* ants.


“Larvae and pupae have been recorded in tunnels in the twigs of *Julbernardia globiflora* (Benth.) Troupin, in association with *Crematogaster* ants, by Bampton, Mullin and PARÉ at Arcturus in Zimbabwe.”
Larval food:
*Brachystegia spiciformis* Benth. (Fabaceae) [Heath et al., 2002: 90].
*Julbernardia globiflora* (Benth.) Troupin (Fabaceae) [Bampton, Mullin and Paré, *in* Pringle et al., 1994: 173; for *Chloroselas pseudozeritis pseudozeritis*; Arcturus, Zimbabwe].
*Vachellia drepanolobium* (Harms ex Sjöstedt) P.J.H. Hurter (Fabaceae) [Collins and Bampton, *in* Heath, 1997: 12; as sp. of *Acacia*; for *Chloroselas pseudozeritis tyleri* Riley].
*Vachellia hockii* (De Wild.) Seigler & Ebinger (Fabaceae) [Van Someren, *vide* Kielland, 1990d: 184; as *Acacia stenocarpa*].

Associated ant:

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**Chloroselas pseudozeritis pseudozeritis** (Trimen, 1873)

Brilliant Gem

*Aphnaeus pseudo-zeritis* Trimen, 1873. Trimen & Bowker, 1887b.
*Chlorozelas pseudozeritis* Trimen. Swanepoel, 1953a. [misspelling of *Chloroselas*]

*Chloroselas pseudozeritis pseudozeritis*. Male (Wingspan 21 mm). Left – upperside; right – underside.
Images M.C. Williams ex Gardiner Collection.

*Chloroselas pseudozeritis pseudozeritis*. Female (Wingspan 23 mm). Left – upperside; right – underside.
Images M.C. Williams ex Williams Collection.

**Type locality:** [South Africa]: “Bathurst, Cape Colony”.

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Distribution: Malawi, Zambia, Mozambique, Zimbabwe, Botswana (Kielland, 1990d), South Africa (Limpopo Province, Mpumalanga, Gauteng, KwaZulu-Natal, Eastern Cape Province), Swaziland.

Specific localities:
Zambia – Lusaka (Heath et al., 2002); Chisamba (Heath et al., 2002); Mumbwa (Heath et al., 2002).
Mozambique – Xiluvo (Pringle et al., 1994).
Zimbabwe – Mutare (Pringle et al., 1994); Trelawney (Pringle et al., 1994; male illustrated above); Arcturus (Pringle et al., 1994).
Limpopo Province – Warmbaths (Swanepoel, 1953); Munnik (Swanepoel, 1953); Molimo’s location (Swanepoel, 1953); Soekmekaar (Pringle et al., 1994); Punda Maria (Pringle et al., 1994).
Mpumalanga – Lydenburg (Pringle et al., 1994); Satara (Pringle et al., 1994).
Gauteng – Saltpan, Pretoria (Tswaing) (Swanepoel, 1953).
KwaZulu-Natal – Bushmans River, near Estcourt (Hutchinson); Umkomaas (Swanepoel, 1953); Durban (Swanepoel, 1953); Clare Estate (Swanepoel, 1953); Sydenham (Swanepoel, 1953); Spitzkop (Swanepoel, 1953); False Bay (Swanepoel, 1953); Hluhluwe (Swanepoel, 1953); Estcourt (Pringle et al., 1994); Nadi (Pringle et al., 1994); Umgeni Valley (above Nagle Dam) (Pringle et al., 1994); Impanza (Pringle et al., 1994); Makatini Flats (Pringle et al., 1994).
Eastern Cape Province – Tharfield, near Bathurst (TL).
Swaziland – Singceni (Pringle et al., 1994).

Chloroselas pseudozeritis tytleri Riley, 1932


Type locality: [Tanzania]: “East Africa, Tonjido (recte Longido?), 4,500 ft.”.

Distribution: Ethiopia, Kenya (central, east, west), Tanzania.

Specific localities:
Kenya – Rabai (Larsen, 1991c); Ngong (Larsen, 1991c); Kima (Larsen, 1991c); Garissa (Larsen, 1991c); Bissil (Larsen, 1991c); Makueni (Larsen, 1991c); Shimba Hills (Larsen, 1991c); South Kavirondo (Larsen, 1991c); Kisumu (Larsen, 1991c); Kacheliba (Larsen, 1991c).
Tanzania – Mount Longido (TL); Northern Highlands (Kielland, 1990d); Mpanda District (Kielland, 1990d); Madibira close to Mufindi District (Kielland, 1990d); Ndumbi Gorge near Chimala (Kielland, 1990d); Ruaha National Park (Kielland, 1990d).

Chloroselas pseudozeritis ngottoana Libert & Annoyer, 2015


Distribution: Central African Republic.

Specific localities:
Central African Republic – Ngotto Forest (TL).

Chloroselas umbrosa Talbot, 1935

*Chloroselas pseudozeritis umbrosa* Talbot, 1906. [date of authorship erroneous; should be 1935]
Type locality: Kenya: [“Mt. Elgon”].
Distribution: Uganda (east), Kenya (west).

Specific localities:
Kenya – Mount Elgon area (TL); South Kavirondo (Larsen, 1991c); Kisumu (Larsen, 1991c).
Habitat: Moist savanna (Larsen, 1991c).
Habits: Nothing published.

Early stages:

Jackson, 1937: 218. [for Chloroselas pseudozeritis umbrosa; Mount Elgon, Kenya].

“The larva is found in the early stages on the terminal shoots of Acacia stenocarpa Hochst. [now Vachellia hockii], Mimosaceae, always, however, on the stems; later it travels down to the bark of the tree. Egg. Not known. Larva. The larva is light brown with a darker dorsal line and wavy black lines along the centre of the sides. It is flattened, with the dorsum evenly rounded, and the margins scalloped and bearing long hair. The collar is armoured with a polished black chitinous plate, as also is the anal extremity. Head very small. Tubercles are present on the edges of the supranal plate, and are exerted on stimulation and vibrated rapidly from side to side; they are long and whitish. Strangely enough there appear to be two glands, for the ants attend to a darker oval area just above the anal plate, and also to a structure under the collar. After many hours of watching under a lens, I am convinced that this is so, for an ant having once found the collar does not leave it, and they never showed a preference for the anal gland. The larvae are always covered with ants, and, in fact, are never without them and, as one would expect, quickly die if the ants are removed. Length, 15 mm. Pupa. The pupa is hidden in cracks or under the bark. It is black and polished. In shape narrow, with prominent head-case and shoulders, the thorax slightly ridged, while the abdominal segments are tapered evenly to the extremity. The latter is slightly stalked and folded beneath the pupa for attachment to the bark. Length, 10 mm. Note on the probable food. When very young the larva is found on the small twigs among ants, although the twig need not necessarily be carrying any leaves. Usually the ants are attending a scale insect and the larva lies among these. A twig carrying scale, however, and not ants, does not satisfy it, and I therefore came to the conclusion that the food has something to do with the ants and not with the scale. Having a few larvae which had not fed for some days, I presented them with a fresh twig covered with scale which the ants had been attending, and the surface of the twig was very carefully examined from end to end with a slow waving motion of the head. Every now and then the head was dropped motionless on to the twig and left there for a few seconds, as if sucking something; the scale was left severely alone and not even investigated. When about half grown the larvae leave the twigs and are found in the ant-runs on the bark, where again I have seen them moving very slowly over the surface. Although many hours have been spent watching, I have never seen an ant feed them. The mouth-parts have not been examined here microscopically, but they seem to be very minute and to suggest some secretion as the food; it is possible that it feeds upon something left in the runs by the ants, perhaps the excreta. Ant associated. Crematogaster (Acrocoelia) gerstaeckeri D.T. st. sjoestedti Mayr. var. tricoloroides Sants. Locality. Mt. Elgon, 18 miles S.W. of Kitale, 6-7000 feet, April and November, 1932.”

Larval food:
Vachellia hockii (De Wild.) Seigler & Ebinger (Fabaceae) [Jackson, 1937: 218; as Acacia stenocarpa Hochst.; Mount Elgon, Kenya; for Chloroselas pseudozeritis umbrosa].

Associated ant:
Crematogaster (Acrocoelia) gerstaeckeri D.T. st. sjoestedti Mayr. var. tricoloroides Sants. [Jackson, 1937: 218; Mount Elgon, Kenya].


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**Chloroselas tamaniba** (Walker, 1870)


**Type locality:** Sudan: “Hor famanib”.

**Distribution:** Sudan.
The description is inadequate and the type lost. In Jackson’s opinion (1966: 526) it should be considered a ‘nomen dubium’.

**Specific localities:**
**Chloroselas taposana** Riley, 1932


**Type locality:** Sudan: “South Sudan, Taposa, Upper Nile Province, near Akobo Post, Akobo River”. Apparently known from only two specimens (Larsen, 1991c: 188).

**Distribution:** Sudan.

**Specific localities:**
- Sudan – Taposa (TL).
- Early stages: Nothing published.
- Larval food: Nothing published.
- Associated ant: Nothing published.

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**Chloroselas trembathi** Collins & Larsen, 1991


**Type locality:** Kenya: “near Meru National Park”.

**Distribution:** Kenya.

**Specific localities:**
- Habits: The only known specimen, a female, was captured while sitting on a small bush (Larsen, 1991c).
- Flight period: The unique female specimen was captured in December.
- Early stages: Nothing published.
- Larval food: Nothing published.
- Associated ant: Nothing published.

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**Chloroselas vansomereni** Jackson, 1966


**Type locality:** Kenya: “Tana River; Garissa-Bura”.

**Distribution:** Kenya (Tana River).

**Specific localities:**
- Kenya – known only from the type locality, Garissa-Bura, which is on the Tana River (Larsen, 1991c).
**Habitat:** Nothing published.

**Habits:** Nothing published.

**Early stages:** Nothing published.

**Larval food:** Nothing published.

**Associated ant:** Nothing published.

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**Desmolycaena rogersi** Riley, 1932. *Annals and Magazine of Natural History* (10) **10**: 149 (137-152).


**Chloroselas rogersi** (Riley, 1932) comb. nov. Grishin, 2023a

**Type locality:** [Tanzania]: “Tanganyika Territory, Kongwa, nr. railway, c. 210 m. W. of Dar-es-Salaam”.

**Distribution:** Kenya (central), Tanzania (north).

**Specific localities:**

Kenya – Ngong (Larsen, 1991c); Kima (Larsen, 1991c); Kathini Ridge (Larsen, 1991c); Nanyuki (Larsen, 1991c).

Tanzania – Kongwa, west of Dar es Salaam (TL).

**Habitat:** Open savanna (Larsen, 1991c).

**Habits:** Apparently this species may be locally numerous (Larsen, 1991c). The flight is fast but specimens readily come to flowers (Larsen, 1991c).

**Early stages:**

Nothing published.

**Larval food:**

Nothing published.

**Associated ant:**

Nothing published.