Genus *Azanus* Moore, 1881

Type-species: *Papilio ubaldus* Stoll, by original designation.


A predominantly Afrotropical genus of 11 species. Of the eight Afrotropical members, two species extend extralimitally. The colloquial name “babul blues” is derived from the Hindi name for trees of the genera *Senegalia* and *Vachellia* (previously *Acacia*), the major larval foodplants of the genus (Larsen, 1991c).

*Azanus jesous* (Guérin-Méneville, 1849)
Topaz Babul Blue

Male of a Topaz Babul Blue (*Azanus jesous*), White Elephant Lodge, KwaZulu-Natal
Image courtesy Steve Woodhall.

*Lycæna jesous* Guerin. Trimen, 1866a.
*Lycæna jesous* (Guerin, 1847). Trimen & Bowker, 1887b.
*Azanus jesous* Guérin, 1847. d’Abrera, 2009: 816. [author name incomplete; date of authorship erroneous?]
Alternative common name: African Babul Blue.

Type locality: [Ethiopia].

Distribution: Senegal, Gambia, Guinea, Burkina Faso, Ghana, Benin (Fermon et al., 2001), Nigeria, Ethiopia, Somalia, Uganda, Kenya, Tanzania, Zambia (widespread), Mozambique, Zimbabwe, Botswana, Namibia, South Africa (Limpopo Province, Mpumalanga, North West Province, Gauteng, Free State Province, KwaZulu-Natal, Eastern Cape Province, Western Cape Province, Northern Cape Province), Swaziland, Lesotho. Also in Arabia (south and west).

Extralimital in the Middle East, Morocco, India, Sri Lanka. Recorded from Spain, for the first time, by Holmes (2002: 77).

In South Africa its distribution covers 298 quarter degree squares (1481 records) [see http://vmus.adu.org.za]. It is regarded as very widespread.

Specific localities:

Benin – Noyau Central, Lama Forest (Fermon et al., 2001).

Ethiopia – Atbara (Butler, 1876).

Somalia – Hor Taminib (Walker, 1870); Tajora (Walker, 1870).

Kenya – Widespread in savanna (Larsen, 1991c); Mount Elgon (Jackson, 1937).

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

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

Zambia – Choma (Heath et al., 2002); Chalimbana (Heath et al., 2002); Mufulira (Heath et al., 2002); Kasaba Bay, Lake Tanganyika (Heath et al., 2002).

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


Mpumalanga – Throughout bushveld areas (Swanepoel, 1953); Verloren Vallei Nature Reserve (Warren, 1990); Buffelskloof Nature Reserve (Williams).

North West Province – Throughout bushveld areas (Swanepoel, 1953); Kgawane Mountain Reserve (Williams); Utopia Resort (C. Dobson, 2006); Borakalala Nature Reserve (J. Dobson,
unpublished, 2009); Hartbeespoort (male illustrated above).

Gauteng – Throughout bushveld areas (Swanepoel, 1953); Witwatersrand Botanical Gardens (J.
Dobson, unpublished checklist, 2001); Buffelsdrif Conservancy (Williams).

Free State Province – Bloemfontein (Swanepoel, 1953); Ladybrand (Swanepoel, 1953); Zastron
(Swanepoel, 1953); Frankfort (Swanepoel, 1953).

KwaZulu-Natal – Ixopo (Swanepoel, 1953); Durban (Swanepoel, 1953); Pietermaritzburg (Swanepoel,
1953); Ladysmith (Swanepoel, 1953); Eshowe (Swanepoel, 1953); Hluhluwe (Swanepoel,
1953); Magut (Swanepoel, 1953); Kosi Bay Nature Reserve (Pringle & Kyle, 2002); Tembe

Eastern Cape Province – Aberdeen (Swanepoel, 1953); Queenstown (Swanepoel, 1953); East London
(Swanepoel, 1953); Port Elizabeth (Swanepoel, 1953); Bashee River (Swanepoel, 1953);
Middelburg (Swanepoel, 1953); Kokstad (Swanepoel, 1953).

Western Cape Province – Cape Town (Swanepoel, 1953); Beaufort West (Swanepoel, 1953);
Strandfontein (Pringle et al., 1994).

Swaziland – Bremersdorp (Swanepoel, 1953); Mlawula Nature Reserve (www.sntc.org.sz).

Lesotho – Maseru (Swanepoel, 1953).

Habitat: Savanna and Karoo. In West Africa in Sudan savanna (Larsen, 2005a). In Tanzania at
altitudes from 300 to 2 600 m (Kielland, 1990d).

Habits: A common and somewhat migratory species (Larsen, 1991c). Specimens are often seen flying
around the crown of a flowering acacia tree. Both sexes are fond of flowers, especially those of its
larval foodplant, and males are avid mud-puddlers. Males are also occasionally seen on carrion
(Larsen, 1991c).

Flight period: All year, but commoner in summer (Pringle et al., 1994).

Early stages:

Jackson, 1937: 233 [Mount Elgon, Kenya].

“The larva feeds on the young shoots of the food-plants. Egg. Minute, circular, white, much flattened
above. Diameter 0.25 mm. Laid among the terminal leaflets. Larva. A beautiful bright green of a shade exactly
resembling the food-plant. The dorsum is double-ridged and bluntly ‘saw-toothed’, there being a depressed
reddish orange dorsal line between the ridges. The collar is narrow, hairy posteriorly, and edged with black.
Along the margins are fine black diagonal stripes, and the edges of the carapace are scalloped. The last pair of
teeth of the dorsal ridge are much darker in colour, the last two lateral stripes being jet black, so that the whole
forms a dark patch just above the anal segments. These latter are flattened and carry a gland situated at the
anterior extremity of a broad dark green longitudinal stripe, with the two tubercles placed close together on either
side and just below the gland. These are exserted vertically, but not vibrated, and are longish, and white with
spiny terminal rosette. Length 12 mm. Pupa. Very small, brown or green, the abdominal segments being lighter
in colour, and having two rows of black dorsal spots. It is narrow and elongate, with thorax ridged, and a distinct
depression between this and the abdominal segments. Head-case prominent, protruding rather far anteriorly. The
pupa is placed on a stem of the food-plant, or in a crack of the bark. Length 8 mm.”

Clark & Dickson, 1971: 92 [as Azamus jesous jesous; Eastern Cape Province].

“Egg. 0.5 mm diam. x 0.25 mm high. Laid singly on flowers, galls or stems. Very pale green with
white ribbing arranged, on the top, in two reversed sets radiating from the micropyle in involute curves, 24 each
way. There are two rings of moles on the edge of the egg and the ribbing resolves into an hexagonal netting-
pattern down the sides. Eggs hatch after 7 days. The discarded shell is not eaten. Larva. 1st instar 1 mm,
growing to 2 mm in 3 days; 2nd instar growing to 4 mm in 4 days; 3rd instar growing to 6.5 mm in 4 days; 4th
instar growing to 12 mm in 8 days. The honey-gland is present in the 2nd to 4th instars, and the tubercles in the 3rd
and 4th instars. The final-instar tubercles each have 30 finely barbed spines. Larvae feed on the buds and flowers,
burrowing with the extended ‘neck’ well into them, and the larvae have also been observed burrowing into galls.
The colour varies considerably, from almost plain yellow to green with dark green diagonal stripes and a red
dorsal strip. The 4th and 9th segments are heavily marked. Moulting takes place where the larva is feeding and the
discarded skin is left in a neat pile. There is a succession of broods during the warm months. Pupa. 9 mm.
Secured to a twig by the cremastral hooks and a girdle. The colour is pale dull green, but this can vary through
the intensity or otherwise of the grey markings. Emergence takes place after some 10 days. Parasites. Egg,
larval and pupal parasitoids presumably the same as for A. moriqua, A. mirza and A. natalensis.”

Larval food:

Adenopodia spicata (E.Mey.) C.Presl. (Fabaceae) [Clark & Dickson, 1971: 92; as Entada spieala].

 Dichrostachys species (Fabaceae) [Larsen, 1991c: 241].

Entada species (Fabaceae) [Larsen, 1991c: 241].

Galls growing on Acacia species (sensu lato) (Fabaceae) [Clark & Dickson, 1971: 92].
Medicago species (Fabaceae) [Kielland, 1990d: 218].
Senegalia caffra (Thunb.) P.J.H. Hurter & Mabb. (Fabaceae) [Otto et al., 2013: 72].
Vachellia abyssinica (Hochst. ex Benth.) Kyal. & Boatwr. (Fabaceae) [Jackson, 1937: 233; Kenya; as sp. of Acacia].
Vachellia hockii (De Wild.) Seigler & Ebinger (Fabaceae) [Jackson, 1937: 233; as Acacia stenocarpa Hochst.; Kenya].
Vachellia karroo (Hayne) Banfi & Galasso (Fabaceae) [Bampton, in Pringle et al., 1994: 277; as sp. of Acacia].
Vachellia pseudofistula (Harms) Kyal. & Boatwr. (Fabaceae) [Heath et al., 2002: 113; as sp. of Acacia].
Vachellia seyal (Del.) P.J.H. Hurter (Fabaceae) [Kielland, 1990d: 218; as sp. of Acacia].

*Azanus mirza* (Plötz, 1880)
Mirza Babul Blue

Pale Babul Blue (*Azanus mirza*) female, Phinda, KwaZulu-Natal
Image courtesy Steve Woodhall.

Azanus mirza Plötz. Swanepoel, 1953a

*Azanus mirza*. Male (Wingspan 23 mm). Left – upperside; right – underside.
Images M.C. Williams ex Dobson Collection.

**Alternative common names:** Pale Babul Blue; Mirza Blue.

**Type locality:** Cameroon: “Victoria”.

**Diagnosis:** Similar to **Azanus moriqua** but on the underside of the hindwing of **mirza** there is a yellowish orange lunule above the black spot with metallic scales in area 2 (Pringle *et al*., 1994). Also, **Azanus moriqua** has well developed black marginal bands on the upperside of both wings.


In South Africa its distribution covers 84 quarter degree squares (327 records) [see http://vmus.adu.org.za]. It is regarded as widespread.

**Specific localities:**

- **Senegal** – Basse Casamance (Larsen, 2005a).
- **Ghana** – Bia National Park (Larsen, 2005a); Bobiri Butterfly Sanctuary (Larsen *et al*., 2007); Boabeng-Fiema Monkey Sanctuary (Larsen *et al*., 2009).
- **Cameroon** – Victoria (TL); Rio del Rey (Butler, 1888); Korup (Larsen, 2005a).
- **Gabon** – Throughout (van de Weghe, 2010).
- **Democratic Republic of Congo** – Muana River (Dufrane, 1953).
- **Kenya** – Widespread in savanna (Larsen, 1991c).
- **Malawi** – Mt Mulanje (Congdon *et al*., 2010); Mt Zomba (Congdon *et al*., 2010).
- **Zambia** – Mwinilunga (Heath *et al*., 2002); Mufulira (Heath *et al*., 2002); Mbala (Heath *et al*., 2002).
- **Mozambique** – Mt Inago (Congdon *et al*., 2010); Mt Mabu (Congdon *et al*., 2010).
- **Limpopo Province** – Legkalameetse Nature Reserve (“Malta Forest”) (Swanepoel, 1953); Duiwelskloof (Swanepoel, 1953); Sibas (Swanepoel, 1953); Waterberg (Swanepoel, 1953); Makapan’s Caves (Swanepoel, 1953); Polokwane (Swanepoel, 1953); Tubex (Swanepoel, 1953); Chuniespoort (Swanepoel, 1953).
- **Mpumalanga** – Barberton (Swanepoel, 1953); Lydenburg (Swanepoel, 1953).
- **Gauteng** – Pretoria (Swanepoel, 1953).
- **KwaZulu-Natal** – Eshowe (Swanepoel, 1953); St. Lucia Bay (Swanepoel, 1953); Umhlanga Rocks (Clark & Dickson, 1971); Durban (Pringle *et al*., 1994; male illustrated above); Kosi Bay Nature Reserve (Pringle & Kyle, 2002).
- **Swaziland** – Malolotja Nature Reserve (www.sntc.org.sz).

**Habitat:** Forest and moist savanna. In West Africa in forest and Guinea savanna, sparingly penetrating Sudan savanna (Larsen, 2005a). In Tanzania at altitudes from 300 to 2 600 m (Kielland, 1990d).

**Habits:** Similar to those of the much commoner **Azanus jesous** (Larsen, 1991c). Flowers are visited by both sexes, especially those of *Acacia* and *Tridax* (Larsen, 1991c). Males are known to mud-puddle (Pringle *et al*., 1994).

**Early stages:**

Clark & Dickson, 1971: 97 [as **Azanus mirza**; near Umhlanga Rocks, KwaZulu-Natal].

**Egg.** 0.4 mm diam. x 0.2 mm high. Laid singly on buds. Pale green with broad white ribbing arranged
on the top in two sets, each with 16 ribs, radiating in opposite directions in involute curves from the micropyle. The intersections have small moles and the spaces between the ribs are upwardly-domed. Eggs hatch after 7 days. The shell is not eaten. **Larva.** 1<sup>st</sup> instar 0.7 mm, growing to 1.2 mm in 3 days; 2<sup>nd</sup> instar growing to 2.2 mm in 4 days; 3<sup>rd</sup> instar growing to 4.5 mm in 4 days; 4<sup>th</sup> instar growing to 8.5-9.5 mm in 11 days. The honey-gland and tubercles are only present in the 3<sup>rd</sup> and 4<sup>th</sup> instars. The final-instar tubercles each have 24 finely barbed spines. Larvae feed on the flowers and buds and moult where they are feeding, leaving the skin in the form of a neat envelope. There is a rotation of broods during the warm months. The colour varies considerably, especially, in the final instar, in which it varies from a plain dull yellowish white to an elaborate colour-scheme, with a salmonish base, cut by white and blue-green stripes; while there are intermediate variations. **Pupa.** 6.5. mm. Secured to a twig or dried leaf by the crenastral hooks and a girdle. The colour varies with the intensity of the spotting. Emergence takes place after 8 days. **Parasites.** Pupa killed by the tachinid, *Cadurciella rufipalpis*. Maggots emerged 11-15.III.60; pupated 13-17.III.60; flies emerged 24-29.III.60.”

**Larval food:**

*Allophylus rubifolius* (Hochst. ex A.Rich.) Engl. var. *alnifolius* (Baker) Friis & Vollesen (Sapindaceae)  
[Van Someren, 1974: 330; as *Allophylus alnifolius* Radlik.].  
*Allophylus* species (Sapindaceae)  
[Clark & Dickson, 1971: 97; Sevastopulo, 1974].  
*Dichrostachys cinerea* (L.) Wight & Arn. (Fabaceae)  
[Van Someren, 1974: 330; as *Dichrostachys glomerata* Hutch.].  
*Senegalia kraussiana* (Meisn. ex Benth.) Kyal. & Boatwr. (Fabaceae)  
[Clark & Dickson, 1971: 97; as sp. of *Acacia*].

Note: The utilization of *Allophylus* species (Sapindaceae) by *Azanus mirza* appears to be unique in the genus. Larsen (2005a) speculates that this may constitute a host-plant shift consequent to its penetration of forest habitat. However, it could be argued that the genus colonized savanna habitats from the forest and that Sapindaceae is therefore the ancestral host-plant family for the genus. It would be of great interest to know what the larval hosts of the two forest-dwelling Magagascan species of the genus are. A molecular phylogeny of the genus would perhaps shed more light on this issue (MCW).

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


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*Azanus moriqua* (Wallengren, 1857)

**Thorn-tree Babul Blue**

Female of a Black-bordered Babul Blue (*Azanus moriqua*), Delville Wood, KwaZulu-Natal
Lycaena moriqua Wallengren. Trimen, 1866a.
Lycaena moriqua Wallengren, 1857. Trimen & Bowker, 1887b.

Azanus moriqua. Male (Wingspan 22 mm). Left – upperside; right – underside.
Images M.C.Williams ex Williams Collection.

Azanus moriqua. Female (Wingspan 23 mm). Left – upperside; right – underside.
Images M.C.Williams ex Williams Collection.

Alternative common names: Black-bordered Babul Blue; Thorn-tree Blue.
Type locality: [South Africa]: “Caffraria”.
Holotype in the Swedish Natural History Museum (no images available at www2.nrm.se/en/lep_nrm/m).
Diagnosis: For differentiation from Azanus mirza see the account for the latter.
Distribution: Senegal, Gambia, Guinea, Sierra Leone, Ivory Coast (Warren-Gash, pers. comm., 2002),
Ghana, Togo, Benin (Fermon et al., 2001), Nigeria, Chad, Uganda, Kenya, Tanzania, Zambia (widespread),
Mozambique, Zimbabwe, Botswana, South Africa (Limpopo Province, Mpumalanga,
North West Province, Gauteng, Free State Province, KwaZulu-Natal, Eastern Cape Province, Western Cape Province, Northern Cape Province), Swaziland, Lesotho. Also in Saudi Arabia (south-west),
Yemen, Oman.

In South Africa its distribution covers 212 quarter degree squares (1022 records) [see http://vmus.adu.org.za]. It is regarded as very widespread.
Specific localities:
Benin – Noyau Central, Lama Forest (Fermon et al., 2001).
Tanzania – Throughout (Kielland, 1990d).
Malawi – Mt Mulanje (Congdon et al., 2010); Mt Zomba (Congdon et al., 2010).
Zambia – Lusaka (Heath et al., 2002); Chisamba (Heath et al., 2002); Mufulira (Heath et al., 2002).
Mozambique – Mt Namuli (Congdon et al., 2010).

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

Mpumalanga – Barberton (Swanepoel, 1953); Lydenburg (Swanepoel, 1953); Buffelskloof Nature Reserve (Williams).

North West Province – Zeerust (Swanepoel, 1953); Kgaswane Mountain Reserve (Williams); Utopia Resort (C. Dobson, 2006); Borakalalo Nature Reserve (J. Dobson, unpublished, 2009).

Gauteng – Pretoria (Swanepoel, 1953).

Free State Province – Bloemfontein (Swanepoel, 1953); Platberg, Harrismith (Dobson, Williams & Schutte, unpublished, 2010).

KwaZulu-Natal – Port Shepstone (Swanepoel, 1953); Ixopo (Swanepoel, 1953); Durban (Swanepoel, 1953); Eshowe (Swanepoel, 1953); Hluhluwe (Swanepoel, 1953); Pietermaritzburg (Swanepoel, 1953); Estcourt (Swanepoel, 1953); Ladysmith (Swanepoel, 1953); Kosi Bay Nature Reserve (Pringle & Kyle, 2002); Tembe Nature Reserve (Pringle & Kyle, 2002); Weenen (male illustrated above).

Eastern Cape Province – Uitenhage (Swanepoel, 1953); Grahamstown (Swanepoel, 1953); East London (Swanepoel, 1953); Port St. Johns (Swanepoel, 1953); Umtata (Swanepoel, 1953); Queenstown (Swanepoel, 1953); Graaff-Reinet (Swanepoel, 1953); Somerset East (Swanepoel, 1953); Tsomo River (Swanepoel, 1953); Butterworth (Swanepoel, 1953).

Western Cape Province – Swellendam (Swanepoel, 1953); Breede River (Swanepoel, 1953); George (Swanepoel, 1953); Steenbras River mouth (Pringle et al., 1994).

Swaziland – Balegane (Swanepoel, 1953); Malolotja Nature Reserve (www.sntc.org.sz).

Habitat: Savanna and Karoo. From sea-level to 2 600 m in Tanzania (Kielland, 1990d).


Early stages:

Clark & Dickson, 1971: 96 [as Azanus moriqua; East London, Eastern Cape Province].

“Egg. 0.4 mm diam. x 0.2 mm high. Laid singly on buds of the food-plant. Green with white ribbing arranged in two sets of 18 involute curves radiating, in opposite directions, from the micropyle, and continuing diagonally down the sides. On the top, the spaces enclosed by the ribs are bulged upwards and there are very small moles at the intersections. Eggs hatch after 5 days. The discarded shell is not eaten. Larva. 1st instar 0.75 mm, growing to 1.5 mm in 4 days; 2nd instar growing to 2.25 mm in 4 days; 3rd instar growing to 4.5 mm in 4 days; 4th instar growing to 10.5 mm in 9 days. The honey-gland is present in the 2nd to 4th instars, and the tubercles in the 3rd and 4th instars. The final-instar tubercles each have 11 finely barbed spines. Larvae feed on the buds and flowers, burrowing well in by means of an extended ‘neck’. The colour varies considerably, with high colours of salmon, green and brown, all giving way to plain dull green in another colour-form. The 9th segment seems, in all forms, to be darkened over the dorsum. Moulting takes place where the larva is feeding and a neat pile of skin is left where it has moulted. There is a succession of broods. Hibernation occurs in the colder parts. Pupa. 8 mm. Secured to a twig or dry leaf by the cremastral hooks and a girdle. The colour is a dirty yellow-green, varying with the intensity of the greyish markings. Emergence takes place after some 10 days. Parasites. Egg infested by very small chalcids. Larva killed by Diptera: the tachinids Cadurciella rufipalpis and Aplomyia poultoni; also by a Pimpla sp.”
Larval food:
*Entada* species (Fabaceae) [Clark & Dickson, 1971: 96].
*Senegalia ataxacantha* (DC.) Kyal. & Boatwr. (Fabaceae) [Otto *et al*., 2013: 72].
*Vachellia davyi* (N.E. Br.) Kyal. & Boatwr. (Fabaceae) [Otto *et al*., 2013: 72].
*Vachellia karroo* (Hayne) Banfi & Galasso (Fabaceae) [Clark & Dickson, 1971: 96; as sp. of *Acacia*].

*benigna* Möschler, 1884 (as sp. of *Lycaena*). *Verhandlungen der Zoologisch-Botanischen Gesellschaft in Wien* 33: 285 (267-310). [South Africa]: “Kaffernlandes”.

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**Azanus natalensis** (Trimen, 1887)##

Natal Babul Blue

Female (left) and male (right) Natal Babul Blue (*Azanus natalensis*). Images courtesy Allison Sharp (left) and Steve Woodhall (right).


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Azanus natalensis. Female (Wingspan 28 mm). Left – upperside; right – underside.
Images M.C.Williams ex Williams Collection.

Alternative common name: Natal Blue.

Type locality: [South Africa]: “Coasts Districts. – Umgeni Railway Station; Upper Districts. – Maritzburg; Estcourt and Bushman’s River; Hermansburg”; [Mozambique]: “Delagoa Bay”.

Original description:

“Exp. al., male 1 in – 1 in. 2 lin.; female 1 in. 1-2.5 lin. Male. Violaceous-blue with a slight pinkish tinge (very nearly the same tint as in moriqua, Wallengren), the discal spots of the under side indistinctly perceptible; a well-defined black line edging hind-margins; cilia in fore-wing fuscous, except next apex, between third and second median nervules, and between first median nervule and submedian nervure, where white replaces the fuscous, – in hind-wing fuscous basally, but white externally throughout. Hind-wing: no tail; usually an indistinct blackish hind-marginal spot at anal angle, and sometimes a second, very indistinct one above it. Under side: white, with brown stripes and streaks and black spots; in both wings – a long slender brown terminal disco-cellar lunule; a slightly irregular, submarginal, lunulated, brown, slender streak; and a hind-marginal row of small spots, mostly black, but a few indistinct and brownish. Fore-wing: a conspicuous longitudinal streak, inferiorly bordering costal nervure, black from base, but becoming brown and suffused towards extremity of discoidal cell, whence it borders costa and unites with origin of brown discal fascia; this fascia brown, rather broad, sharply defined, slightly oblique, emitting a prominent dentation outward just above third median nervure, abruptly interrupted on second median nervure, its widely separated lower part (consisting of a large upper spot and very small inferior one) much nearer base than the rest; a conspicuous rounded black spot in lower part of discoidal cell near extremity; the fourth and sixth spots in hind-marginal row brownish, obsolescent. Hind-wing: short, basal, sub-transverse black streak, and sub-basal transverse row of four black spots as in moriqua, but more strongly marked; an extremely irregular and interrupted discal row of very unequal-sized black spots, of which the first and second next costa about middle are large and conspicuous, – the third (a good deal beyond them) minute, – the fourth (still farther beyond) minute or quite obsolete, – the fifth (close to submarginal streak), sixth (considerably nearer base), and eighth (on inner margin about middle) large, – and the seventh very small but usually geminate; spots of hind-marginal row larger than in fore-wing (especially the first, next costa), only the fourth brownish and obsolescent, the fifth and sixth large, spangled with silvery-blue. Female. White, with rather broad fuscous-brown costal and hind-marginal borders, and fuscous discal submacular fascia and spots following the pattern of the under side; shot with violaceous-blue from bases. Fore-wing: terminal disco-cellar lunule much broader, and discal fascia much broader and its lower part less disconnected than on under side of male; blue suffusion extending to beyond middle along inner margin and filling discoidal cell. Hind-wing: only the lower larger spots of discal row represented; two hind-marginal spots next anal angle blackish, distinct; blue suffusion filling cell and extending thinly below and beyond it over median nervures. Under side: markings generally larger than in male, especially the disco-cellular lunules, the hind-marginal spots, and in fore-wing the discal fascia. Fore-wing: a faint brownish suffusion basally.”

Distribution: Senegal, Ghana, Benin (Fermon et al., 2001), Nigeria, Ethiopia, Uganda, Kenya, Tanzania, Zambia, Mozambique, Zimbabwe, South Africa (Limpopo Province, Mpumalanga, Gauteng, Free State Province, KwaZulu-Natal, Eastern Cape Province), Swaziland (Duke et al., 1999).

In South Africa its distribution covers 120 quarter degree squares (771 records) [see http://vmus.adu.org.za]. It is regarded as widespread.

Specific localities:

Senegal – Niokola-Koba National Park (Condamin, vide Larsen, 2005a; requires confirmation).
Ghana – Bole (Maessen, vide Larsen, 2005a).
Benin – Noyau Central, Lama Forest (Fermon et al., 2001).
Nigeria – Iseyin (Larsen, 2005a); Kano (Larsen, 2005a).
Kenya – Widespread (Larsen, 1991c); Mount Elgon (Jackson, 1937).
Tanzania – Throughout (Kielland, 1990d); Katavi National Park (Fitzherbert et al., 2006).
Malawi – Mt Mulanje (Congdon et al., 2010).
Zambia – Widespread (Heath et al., 2002); Lusaka (Heath et al., 2002); Chalimbana (Heath et al., 2002); Mwemba (Heath et al., 2002); Mfufulira (Heath et al., 2002).

Mozambique – Delagoa Bay (Trimen & Bowker, 1887).

Limpopo Province – Letaba (Swanepoel, 1953); Zoutpansberg (Swanepoel, 1953); Polokwane (Swanepoel, 1953); Tzaneen; Soetdoring Nature Reserve [24.561 28.233] (A. Mayer, pers comm. 2015).

Mpumalanga – Barberton (Swanepoel, 1953); Nelspruit (Swanepoel, 1953); Sterkspruit Nature Reserve (Williams).


KwaZulu-Natal – Umgeni Railway Station (TL); Pietermaritzburg (Trimen & Bowker, 1887); Estcourt (Trimen & Bowker, 1887); Bushman’s River (Trimen & Bowker, 1887); Hermansburg (Trimen & Bowker, 1887); Durban (Swanepoel, 1953); Drummond (Swanepoel, 1953); Weenen (Swanepoel, 1953); Balgowan (Swanepoel, 1953); Hluhluwe (Swanepoel, 1953); Greytown (Swanepoel, 1953); Stanger (Swanepoel, 1953); Thabamshlope (Swanepoel, 1953); Kosi Bay Nature Reserve (Pringle & Kyle, 2002); Tembe Nature Reserve (Pringle & Kyle, 2002); Ndumo Nature Reserve (Pringle & Kyle, 2002).

Eastern Cape Province – Kei River (Swanepoel, 1953); Sihota (Swanepoel, 1953); Kokstad (Swanepoel, 1953).

Swaziland – Bremersdorp (Swanepoel, 1953).

Habitat: Moist savanna. In West Africa in Guinea savanna (Larsen, 2005a). In Tanzania at altitudes from 300 m to 2 000 m (Kielland, 1990d).

Habits: This is probably the least common species of the genus. Although it is the largest member of the genus, it has the weakest flight. Both sexes feed from flowers, especially those of acacias. Males mud-puddle (Larsen, 1991c). A male was found feeding from flowers in montane grassland at 2 200 m on the Long Tom Pass (Mpumalanga, South Africa) and a female at 2 600 m in Golden Gates Highland National Park (Free State, South Africa), attesting to the dispersal powers of the species (MCW, unpublished).

Flight period: All year in favourable localities; summer in colder areas (Pringle et al., 1994).

Early stages:

Jackson, 1937: 232 [Mount Elgon, Kenya].

“The larva feeds on the young shoots of the food-plant. Egg. White, circular and very flattened. Diameter 0.75 mm. It is laid among the young shoots. Larva. Onisciform in shape, and the ground-colour is very pale green. It has a modified double-ridged dorsum, the ‘teeth’ of which are much flattened, leaving a dark green dorsal line between the ridges. Along the lateral are black, white-edged, diagonal stripes continuing in front round the collar. The latter is characteristic, being squarely pointed in front, the second segment also being somewhat swollen and hood-like. It is edged with white. The lateral ‘skirts’ are pale yellow, heavy, and much broadened. The flattened anal segments are divided centrally by a broad dark green line, and half-way to the edge on either side are the tubercles, almost invisible in the light ground colour and very minute. They are not apparently exertile. Above them is a large gland. Length 16 mm. Pupa. Narrow and of nearly even width throughout, but tapering slightly to the rather pointed posterior extremity and to the head-case. The latter is square ended and prominent, and behind it are conspicuous ‘shoulders’. The thorax is ridged and dorsally there is a depression between it and the abdominal segments. The surface is smooth and polished, coloured green or very pale green. It has a modified double-ridged dorsum, the ‘teeth’ of which are much flattened, leaving a dark green dorsal line between the ridges. Along the lateral are black, white-edged, diagonal stripes continuing in front round the collar. The latter is characteristic, being squarely pointed in front, the second segment also being somewhat swollen and hood-like. It is edged with white. The lateral ‘skirts’ are pale yellow, heavy, and much broadened. The flattened anal segments are divided centrally by a broad dark green line, and half-way to the edge on either side are the tubercles, almost invisible in the light ground colour and very minute. They are not apparently exertile. Above them is a large gland. Length 16 mm. Pupa. Narrow and of nearly even width throughout, but tapering slightly to the rather pointed posterior extremity and to the head-case. The latter is square ended and prominent, and behind it are conspicuous ‘shoulders’. The thorax is ridged and dorsally there is a depression between it and the abdominal segments. The surface is smooth and polished, coloured green or brown, with a dark dorso-abdominal line and rows of large black spots on the sides. In addition, there are a few black spots on the sides of the thorax. Length 10-11 mm. Parasites. The hymenopteran Tetrastichus sculpturatus Waterer. (Chalcidae) as well as a tachinid were bred.”

Clark & Dickson, 1971: 100 [as Azanus natalensis; near Durban, KwaZulu-Natal].

“The larva feeds on the young shoots of the food-plant. Egg. White, circular and very flattened. Diameter 0.75 mm. It is laid among the young shoots. Larva. Onisciform in shape, and the ground-colour is very pale green. It has a modified double-ridged dorsum, the ‘teeth’ of which are much flattened, leaving a dark green dorsal line between the ridges. Along the lateral are black, white-edged, diagonal stripes continuing in front round the collar. The latter is characteristic, being squarely pointed in front, the second segment also being somewhat swollen and hood-like. It is edged with white. The lateral ‘skirts’ are pale yellow, heavy, and much broadened. The flattened anal segments are divided centrally by a broad dark green line, and half-way to the edge on either side are the tubercles, almost invisible in the light ground colour and very minute. They are not apparently exertile. Above them is a large gland. Length 16 mm. Pupa. Narrow and of nearly even width throughout, but tapering slightly to the rather pointed posterior extremity and to the head-case. The latter is square ended and prominent, and behind it are conspicuous ‘shoulders’. The thorax is ridged and dorsally there is a depression between it and the abdominal segments. The surface is smooth and polished, coloured green or brown, with a dark dorso-abdominal line and rows of large black spots on the sides. In addition, there are a few black spots on the sides of the thorax. Length 10-11 mm. Parasites. The hymenopteran Tetrastichus sculpuratus Waterer. (Chalcidae) as well as a tachinid were bred.”

Egg. 0.4 mm diam. x 0.2 mm high. Laid singly on buds or young shoots. Very pale green to white, with white ribbing. There are 16 rosetted moles round the upper edge and two sets of ribs, 16 in each set, radiate from the micropyle in reverse involute curves, doubling in number half-way to the edge. Eggs hatch after 3-4 days. Discarded shells are not eaten. Larva. 1st instar growing to 0.75 mm, growing to 1.6 mm in 5 days; 2nd instar growing to 2.5 mm in 3 days; 3rd instar growing to 5 mm in 3 days; 4th instar growing to 11.5 mm in 5-7 days. The honey-gland is present in the 2nd to 4th instars; the tubercles in the 3rd and 4th instars. There are some 20 finely barbed spines on each of the final-instar tubercles. Larvae feed on the buds and flowers of the food-plant and by extending their ‘necks’ they burrow deep into these. Moultning takes place where the larvae are feeding and the discarded skin is left in a neat pile. There is a succession of broods until cold weather results in hibernation, in the general run of localities in South Africa. Pupa. 8 mm. Secured to a twig by the cremastral hooks and a girdle. The colour is pale green, which is darkened or lightened by the intensity or otherwise of the grey marking. The imago emerges after 9-12 days. Parasites. Larva killed by a small Pimpla sp. in the 2nd instar. Pupa killed by the tachinid Diptera, Aplomyiella (?) laeviventris.”
Final instar larva of *Azanus natalensis*; lateral and dorsal views. Images courtesy Allison Sharp.

Pupa of *Azanus natalensis*; lateral and dorsal views. Images courtesy Allison Sharp.

**Larval food:**
*Vachellia abyssinica* (Hochst. ex Benth.) Kyal. & Boatwr. (Fabaceae) [Jackson, 1937: 232; Kenya; as sp. of *Acacia*].
*Vachellia karroo* (Hayne) Banfi & Galasso [Clark & Dickson, 1971: 100; as sp. of *Acacia*; South Africa].
*Vachellia sieberana* (DC.) Kyal. & Boatwr. (Fabaceae) [Williams, Stoffberg, Mpumalanga; unpublished obs., Nov. 2010; as sp. of *Acacia*].

**Associated ants:**
*Cataulacus donisthorpei* Sants. (Formicidae) [Jackson, 1937: 232; Kenya].
*Engramma ilgi* For. (Formicidae) [Jackson, 1937: 232; Kenya].

***Azanus sitalces*** (Mabille, 1900)

*Azanus sitalces* Mabille, 1899. d’Abrera, 2009: 817. [date of authorship erroneous]

**Distribution:** Madagascar, Comoro Islands.
**Habitat:** Forest (Lees *et al.*, 2003).
**Early stages:** Nothing published.
**Larval food:** Nothing published.

***Azanus sitalces sitalces*** (Mabille, 1900)

*Azanus sitalces sitalces* Mabille, 1899. d’Abrera, 2009: 817. [date of authorship erroneous]


**Distribution:** Madagascar.

**Specific localities:**
- Madagascar – Antongil Bay (TL); Marsantsetia (Lathy, 1921).

rubropuncta Lathy, 1921 (as sp. of Azanus). Annals and Magazine of Natural History (9) 8: 208 (208).
Madagascar: “Marsantsetia”.

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**Azanus sitalces mayotti** d’Abrera, 1980


**Type locality:** Comoro Islands: “Mayotte”.

**Distribution:** Comoro Islands (Mayotte Island).

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**Azanus soalalicus** (Karsch, 1900)


**Type locality:** Madagascar: “West-Madagascar”.

**Distribution:** Madagascar.

**Habitat:** Forest (Lees et al., 2003).

**Early stages:** Nothing published.

**Larval food:** Nothing published.

**Note:** D’Abrera (2009: 816) treats soalalicus as a subspecies of jesous, without reference to Lees et al., 2003 (who treat it as a valid species).

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**Azanus ubaldus** (Stoll, 1782)


Lycaena macalenga Trimen, 1870. Trimen & Bowker, 1887b. [Synonym of Azanus ubaldus]


**Note:** *Azanus ubaldus*. Male (Wingspan 22 mm). Left – upperside; right – underside. Wingspan 22 mm.

Utopia Resort, North West Province, South Africa. 11 October 2003. J. Dobson.

Images M.C. Williams ex Dobson Collection.
Azanus ubaldus.  Female (Wingspan 22 mm).  Left – upperside; right – underside.  Wingspan 22 mm.
Rosslyn, Gauteng, South Africa.  26 December 2002.  J. Dobson.
Images M.C. Williams ex Dobson Collection.

Alternative common name: Desert Babul Blue.
Type locality: India: “Coromandel”.
Diagnosis: The male is at once distinguished by the blue, velvety discal patch on the forewing upperside (Pringle et al., 1994).
Distribution: Senegal, Burkina Faso, Ghana (north), Nigeria (north), Niger, Somalia, Uganda, Kenya, Tanzania, Zambia, Mozambique, Zimbabwe, Botswana, Namibia, South Africa (Limpopo Province, Mpumalanga, North West Province, Gauteng, Free State Province, KwaZulu-Natal, Eastern Cape Province, Western Cape Province, Northern Cape Province), Swaziland (Duke et al., 1999), Lesotho. Also in Saudi Arabia, Yemen, Oman.
Extralimital in the Canary Islands (Schurian, 2008), North Africa, Egypt, eastern Mediterranean, India, Sri Lanka.
In South Africa its distribution covers 206 quarter degree squares (587 records) [see http://vmus.adu.org.za]. It is regarded as very widespread.

Specific localities:
Ghana – Wa (J. van Dinthen, vide Larsen, 2005a).
Tanzania – Widespread in savanna (Kielland, 1990d); Katavi National Park (Fitzherbert et al., 2006).
Zambia – Known from a single male taken by Heath near Mufulira (Heath et al., 2002).
Botswana – Widespread (Larsen, 1991); 40 km west of Tshabong (Larsen, 1991); Serowe (Larsen, 1991); West Gaborone (Larsen, 1991).
Limpopo Province – Throughout bushveld areas (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 – Throughout bushveld areas (Swanepoel, 1953).
North West Province – Throughout bushveld areas (Swanepoel, 1953); Utopia Resort (C. Dobson, 2006); Borakalalo Nature Reserve (J. Dobson, unpublished, 2009).
Gauteng – Throughout bushveld areas (Swanepoel, 1953); Witwatersrand Botanical Gardens (J. Dobson, unpublished checklist, 2001); Klapperkop, Pretoria (male illustrated above).
Free State Province – Bloemfontein (Swanepoel, 1953); Ladybrand (Swanepoel, 1953); Zastron (Swanepoel, 1953); Frankfort (Swanepoel, 1953).
KwaZulu-Natal – Port Shepstone (Swanepoel, 1953); Ixopo (Swanepoel, 1953); Estcourt (Swanepoel, 1953); Durban (Swanepoel, 1953); Eshowe (Swanepoel, 1953); Hluhluwe (Swanepoel, 1953); Greytown (Swanepoel, 1953); Ladysmith (Swanepoel, 1953)
Eastern Cape Province – Burghersdorp (Swanepoel, 1953); Queenstown (Swanepoel, 1953); East London (Swanepoel, 1953).
Western Cape Province – Swellendam (Swanepoel, 1953); Matjiesfontein (Swanepoel, 1953); Beaufort West (Swanepoel, 1953); Murraysburg (Swanepoel, 1953).
Northern Cape Province – Kimberley (Swanepoel, 1953).
Lesotho – Olifants Been on the Comet Spruit (Makaleng River) (Trimen, 1870); Maseru (Swanepoel, 1953).

Habitat: Dry savanna and Karoo. In West Africa it is Sahelian and, to a lesser extent, inhabits Sudan savanna (Larsen, 2005a). In Tanzania at altitudes from 300 to 2 400 m (Kielland, 1990d).

Habit: Usually found flying rapidly around flowering acacia trees. This species is apparently migratory (Larsen, 1991c). On cloudy days they rest on the bark of stout branches and tree trunks, a
behaviour not evidenced by other members of the genus. Both sexes feed from flowers, especially those of acacias, and males sometimes mud-puddle (Pringle et al., 1994). Under appropriate conditions hundreds of males have been seen mud-puddling (Larsen, 2005a).

**Flight period:** All of the warmer months of the year (Pringle et al., 1994).

**Early stages:**

Clark & Dickson, 1971: 93 [as Azanus ubaldus; Eastern Cape Province].

“Egg. Unrecorded. Only the final-instar larva is recorded. It is green or yellow-green, one form being unmarked but with parts of the body, including the lateral ridge, lighter than the rest of the surface; another form is prominently marked with purple to brownish purple and is yellow in places, as in the illustration. The numerous very small setae on the surface of the larva arise from rounded bases. **Pupa.** 10 mm. Light brown in colour and of the form usual in the genus.”

**Larval food:**

*Dichrostachys* (possibly) (Fabaceae) [Larsen, 2005a].

*Vachellia karroo* (Hayne) Banfi & Galasso [Clark & Dickson, 1971: 93; as sp. of *Acacia*].

*Vachellia nilotica* (L.) P.J.H. Hurter & Mabb. (Fabaceae) [Larsen, 1991; as sp. of *Acacia*; Gaborone, Botswana].

**Associated ants:**

*Camponotus* species (Formicidae) [Larsen, 2005a].

*Prenolepis* species (Formicidae) [Larsen, 2005a].

**Relevant literature:**


*itea* Walker, 1870 (as sp. of *Lycaena*). *Entomologist* 5: 55 (48-57). Egypt: “Cairo”.

*macalenga* Trimen, 1870 (as sp. of *Lycaena*). *Transactions of the Entomological Society of London* 1870: 364 (341-390). [Lesotho]: “Olifants Been, on the Cornet Spruit (Makaleng river)”.

*thebana* Staudinger, 1894 (as sp. of *Lycaena*). *Deutsche Entomologische Zeitschrift, Iris* 7: 244 (241-296). Egypt: “Cairo”.

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**Azanus isis** (Drury, 1773)

White-handed Babul Blue

*Papilio isis* Drury, 1773. *Illustrations of Natural History* 2: index et 6 (90 pp.). London.


*Azanus isis*. Male. Left – upperside; right – underside.

Mabira Forest, Uganda. 15 June 2009. J. Dobson.

Images M.C. Williams ex Dobson Collection.

**Type locality:** Sierra Leone: “Sierra Leon”.

**Distribution:** Senegal, Guinea-Bissau, Guinea, Sierra Leone, Liberia, Ivory Coast, Ghana, Togo, Nigeria (south), Cameroon, Gabon, Congo, Angola, Democratic Republic of Congo, Uganda, Ethiopia, Tanzania (north-west), Zambia (north).
Specific localities:
- Senegal – Basse Casamance (Larsen, 2005a).
- Ghana – Boabeng-Fiema Monkey Sanctuary (Larsen et al., 2009).
- Gabon – Lake Evaro (van de Weghe, 2010); Ivingo N.P. (van de Weghe, 2010); Bitam (van de Weghe, 2010); camp Nouna (van de Weghe, 2010); Bateke Plateau (van de Weghe, 2010).
- Tanzania – Minziro Forest (Congdon & Collins, 1998); Munene Forest (common) (Congdon & Collins, 1998).
- Zambia – Ikelenge (Heath et al., 2002); Chingola (Heath et al., 2002); Kalalushi (Heath et al., 2002); Kitwe (Heath et al., 2002; male illustrated above); Mufulira (Heath et al., 2002).

Common name: White-banded Babul Blue.

Habitat: Forest edges and clearings and woodland (moist savanna) (Heath et al., 2002).

Habits: This is a common butterfly, which is sometimes abundant (Larsen, 2005a). The flight is slow. Specimens are often encountered along forest roads (Congdon & Collins, 1998). Males mud-puddle, are frequent visitors to carcasses and excrement, and also settle on sweaty clothing and skin. They are attracted to traps baited with rotting shrimp (Larsen, 2005a). Females are less often seen (Larsen, 2005a).

Early stages: Nothing published.

Larval food:
- **Dichrostachys cinerea** (L.) Wight & Arn. var. africana Brenan & Brummitt (Fabaceae) [Congdon & Collins, 1998: 105; oviposition; Minziro, Tanzania].
- **Dichrostachys cinerea** (L.) Wight & Arn. subsp. cinerea (Fabaceae) [Van Someren, 1974: 330; as *Dichrostachys glomerata* Hutch.].
- **caeruleoalbus** Goze, 1779 (as sp. of *Papilio*). *Entomologische Beyträge zu des Ritter Linné zwölften Ausgabe des Natursystems* 3 (1): 212 (390 pp.). Leipzig. Sierra Leone: “der Siera-leonische weissgeflekte Bläuling” [the Sierra Leone white-flecked little blue].
- **camillus** Cramer, 1780 (as sp. of *Papilio*). *Die Uitlandsche Kapellen voorkomende in de drie waerrelddeelen Asia Africa en America* 4 [part]: 20 (1-28). Sierra Leone: “Siera Leona”.
- **isarchus** Fabricius, 1793 (as sp. of *Hesperia*). *Entomologia Systematica emendata et aucta* 3 (1): 316 (488 pp.). “Habitat in America”. [False locality].