

Genus *Melampias* Hübner, [1819]

Boland Brown

In: Hübner [1816-[1826]. *Verzeichniss bekannter Schmettlinge* 63 (432 + 72 pp.). Augsburg.

Type-species: *Papilio hyperbius* Linnaeus, by subsequent designation (Scudder, 1875. *Proceedings of the American Academy of Arts and Sciences* **10**: 214 (91-293)).

The genus *Melampias* belongs to the Family Nymphalidae Rafinesque, 1815; Subfamily Satyrinae Boisduval, 1833; Tribe Satyrini Boisduval, 1833; Subtribe Ypthimina, Reuter, 1896. The other genera in the Subtribe Ypthimina in the Afrotropical Region are *Ypthima*, *Ypthimomorpha*, *Mashuna*, *Mashunoides*, *Strabena*, *Neocoenyra*, *Coenyropsis*, *Coenyra*, *Neita*, *Cassionympha*, *Pseudonympha*, *Paternympha* and *Stygionympha*.

Melampias (**Boland Brown**) is an Afrotropical genus containing a single species.

Melampias huebneri van Son, 1955#

Boland Brown

Papilio hyperbius Linnaeus, 1764. *Museum Ludovicae Ulrica Reginae* 257 (720 pp.). Holmiae.

Erebia hyperbius Linnaeus. Trimen, 1866a.

Pseudonympha hyperbius (Linnaeus, 1764). Trimen & Bowker, 1887a.

Melampias hyperbius Linnaeus. Swanepoel, 1953a.

Melampias hübneri van Son, 1955. **nom. nov.** *Transvaal Museum Memoirs* No. 8: 99 (1-166).

Melampias huebneri Van Son, 1955. Dickson & Kroon, 1978.

Melampias huebneri Van Son, 1955. Pringle *et al.*, 1994: 61.



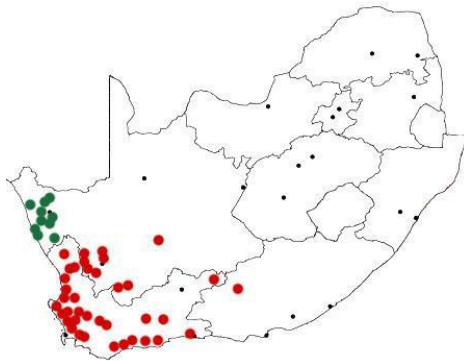
Melampias huebneri huebneri. Male (Wingspan 37 mm). Left – upperside; right – underside.
Lambert's Bay, Western Cape Province, South Africa. 1 September 2007. J. Dobson.
Images M.C. Williams ex J. Dobson Collection.



Melampias huebneri huebneri. Female (Wingspan 34 mm). Left – upperside; right – underside.
Lambert's Bay, Western Cape Province, South Africa. 1 September 2007. J. Dobson.
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Alternative common name: Boland Bruintjie (ssp. *huebneri*), Namaqua Boland Bruintjie (ssp. *steniptera*) (Afrikaans).

Type locality: [South Africa]: “Cap. b. Spei, Tulbagh”.



Distribution: South Africa –

Eastern Cape Province, Western Cape Province, Northern Cape Province. [ssp. *huebneri* – red dots]

Northern Cape Province. [ssp. *steniptera* – green dots]

Distribution: South Africa.

Habitat: Fynbos and Karoo.

Habits: The flight is low down and sustained.

Flight period: Late June or July to November (nominate subspecies); August to October (subspecies *steniptera*) (Pringle *et al.*, 1994).

Early stages:

Clark, *in* Van Son, 1955: 99 (subspecies *huebneri*).

“**Egg.** Eggs are laid singly on a blade of grass or on the stalk. They are watery white when laid, changing to whitish-green, and later irregular reddish bands develop, generally two, and the micropyle is crowned with the same colour which may extend at one point down to the first band. They have some sixty longitudinal ribs down the side, cross-braced by about twenty-five square indentations. Over the upper and lower quarter these break up into a hexagonal pattern. The section of the egg, horizontally through the centre, is a rough ellipse with a major axis of 0.95 mm and a minor of 0.85 mm, while the height averages 1.1 mm. The dimensions vary. The egg-stage varies from 11 to 17 days in the eggs I have hatched. **Larva: First instar.** The young larva emerges from the egg by eating a hole near the top, and after a rest eats the discarded shell, leaving only the base adhering to the blade of grass. The larva is pale watery white with a shade of pink on the first six segments, and a shade of yellow on the remainder. It has yellowish-salmon dorsal, subdorsal, lateral and spiracular lines. The head is black with two blunt projections, sunken at the crown, in the centre of which a white seta is placed. The primary setae are white, set on white moles. On each side of the dorsum there is a row of white setae, one on the anterior wrinkle of each segment; on the right side on segments 1-10, and on the left side on segments 1 and 2 they lean forward, the remainder lean backward. There is a subdorsal row of smaller white setae on each side, also set on white moles. These more or less point straight out but are inclined, if anything, in the same direction as the dorsal spines. There is a lateral row of white spines on white moles on each side. These are longer than the subdorsal and smaller than the dorsal. On segments 1-11 they point

forward, the remainder backward. On the lateral ridge segments 4-11 have two white spines but segments 1-3 and 13 have only one. These are all white. The prolegs have two small spines each, the posterior spine being the longer. As soon as the larva feeds on the green grass the food inside its body gives it a greenish colour and the stripes appear brownish. Later white edging develops on the dorsal line and below the subdorsal line, the lateral and spiracular lines broaden and are divided only by a white line, at the same time a white edging develops above the lateral and below the spiracular lines. With this development the stripes assume a greenish-brown colour shading to yellow posteriorly. To moult, the larva spins a silken mat where it is feeding, fastens its anal claspers in this and after about forty hours casts its skin. The first instar lasts in the neighbourhood of 10-13 days and the larva grows from $2\frac{3}{4}$ to 5 mm. The discarded skin is not necessarily eaten. **Second instar.** The larva is green, with a thin dark green dorsal line broadly edged with white. The subdorsal line is also dark green and bordered with white below. The broad dark green lateral line is bordered above and below with white, and the lateral ridge is white. The head is reddish-salmon, with the white dorsal line bordering extending over two projections on the top. The final segment is forked and pinkish. On each white border there is a row of white spines set on white moles, one per wrinkle, and on the dark green subdorsal line there is a row of white spines set on green moles. The lateral line has only two spines placed on the anterior wrinkles. The ventral portions are sparingly studded with white spines on white moles. The larva crawls to the top of a blade of grass where it feeds on the tip or edge, then returns to the base to rest. This instar lasts 11-14 days and larvae grow to $8\frac{1}{2}$ mm. **Third instar.** The larva is a faded green, the lines are the same as in the last instar but not so distinct and only a few more setae have developed in the vicinity of the spiracle. The head is reddish. When about 10 mm long, generally in October, the larvae stop feeding, crawl to a secluded spot among the roots and settle down to a prolonged rest period. This corresponds to the dying down of the food plant. About April they start moving and soon begin feeding again. During the rest period, having no green food in them, they turn a pale dull yellow with pale salmon-brown stripes, but as soon as they commence to feed again the green colours return. After reaching $12\frac{1}{2}$ mm, generally in May, they settle down to moult. **Fourth instar.** The larvae are a dull pea-green, the stripes are a deeper colour and are edged as before with white. The head is now green and the projections are blunter. The setae are practically the same as in the previous instar. The duration of the instar varies, but is approximately twenty-six days, and the larvae grow to 16 mm. **Final instar.** Though the lines with their edging are the same, they are not so pronounced. The white edgings are studded with about double the number of setae, and the intervening spaces are also well studded. The ventral portions are pea-green, well studded with setae which are slightly longer, but still on white moles. The prolegs are inclined to salmon. The head is green with modified projections. The spiracles are a salmon-yellow and slightly raised. The forked final segment is pink. The final instar lasts some thirty or more days, and the larvae grow to 23 mm. When nearing pupation, the larvae lose all body markings and turn a pale watery green and begin to shrink. They seek out a suitable place and spin a silken mat, into which they fix their anal claspers, later hanging downward and finally doubling up until the head nearly touches the anal claspers. After some five days the larva pupates. **Pupa.** The pupa is secured to a silken mat by cremastral hooks and is suspended head downward. It is pale green with the wing case edged near the dorsum with pale salmon. The pupa is 13-14 mm long, rather broad laterally on the thorax, and the head has slight projections. The pupal stage is about twenty-four days.”

Clark, in Pringle *et al.*, 1994: plate 3 (subspecies *steniptera*).

“The eggs are laid singly and are 0,9 mm in diameter and 1 mm high. They are a very pale, watery yellow and later develop about 80 centrally longitudinal ribs which break up into an irregular pattern on top and bottom. There are some 10 horizontal cross ribs at the centre. Around the micropyle the indentations are very small. On emergence the larva eats some of the discarded eggshell, then proceeds to the edge of the grass. The larva is transparent yellow until it becomes greenish after the first feed. The head is pale amber. The larva feeds on the edge, near the tip, of a blade of grass. It moults where it is feeding and eats the discarded skin. Larva: On emergence 2,5 mm, egg duration 12 days. 1st instar 2,5 mm to 5,5 mm in nine days; 2nd instar 5,5 mm to 8,5 mm in 10 days; 3rd instar 8,5 to 13,0 mm in 17 days; 4th instar 13,0 mm to 21,0 mm in 18 days. Pupa 11,5 mm hatched after 15 days. To pupate the larva hangs head downwards secured only by the cremastral hooks; it then curves forward with head tucked in.”

Larval food:

Avena sativa L. (Poaceae) (exotic) [Dickson & Kroon, 1978: 42].

Ehrharta erecta Lam. (Poaceae) [Dickson & Kroon, 1978: 42; in captivity].

Melampias huebneri huebneri van Son, 1955#

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Melampias hyperbius (Linnaeus, 1764). Swanepoel, 1953.

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Melampias huebneri huebneri. Male (Wingspan 37 mm). Left – upperside; right – underside.
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Type locality: [South Africa]: “Cap. b. Spei, Tulbagh”.

Distribution: South Africa (Eastern Cape Province, Western Cape Province, Northern Cape Province).

Specific localities:

Eastern Cape Province – Graaff-Reinet (Mecenero *et al.*, 2013).

Western Cape Province – Tulbagh (TL); Signal Hill (Swanepoel, 1953), Cape Town (Swanepoel, 1953); Tygerberg (Swanepoel, 1953); St Helena Bay (Swanepoel, 1953); Malmesbury (Swanepoel, 1953); Piketberg (Swanepoel, 1953); Clanwilliam (Swanepoel, 1953); Wolseley (Swanepoel, 1953); Paarl (Swanepoel, 1953); Worcester (Swanepoel, 1953); Hoedjes Bay (Swanepoel, 1953); Melkbosstrand (Pringle *et al.*, 1994); Mamre (Pringle *et al.*, 1994); Swellendam (Pringle *et al.*, 1994); Gouritz River Bridge (Pringle *et al.*, 1994); Oudtshoorn (Pringle *et al.*, 1994); Calitzdorp (Pringle *et al.*, 1994); Knysna (Mecenero *et al.*, 2013); Bitterfontein (Mecenero *et al.*, 2013).

Northern Cape Province – Nieuwoudtville (Pringle *et al.*, 1994); Sutherland (Pringle); Tanqua Karoo (Ball); Middelpoort (Mecenero *et al.*, 2013).

hyperbius Linnaeus, 1764 (as sp. of *Papilio*). *Museum Ludovicae Ulricae Reginae* 257 (720 pp.). Holmiae. [South Africa]: “Cap. b. Spei, Tulbagh”. [Invalid; junior primary homonym of *Papilio hyperbius* Linnaeus, 1763 [Nymphalidae].]

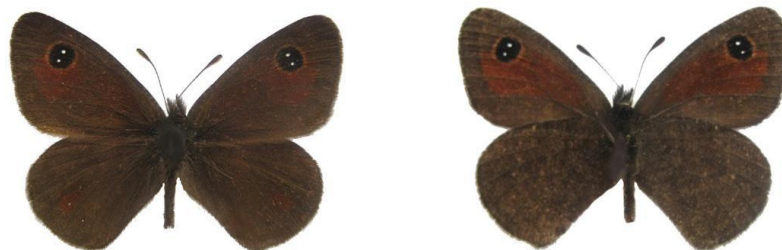
Melampias huebneri steniptera Vári, 1971#

Namaqua Boland Brown

Melampias hubneri steniptera Vári, 1971. *Annals of the Transvaal Museum* 27: 211 (193-223).

Melampias huebneri steniptera Vári, 1971. Dickson & Kroon, 1978: 42. [Emendation of spelling of species name to conform with nominate subspecies]

Melampias huebneri steniptera Vári, 1971. Pringle *et al.*, 1994: 61.



Melampias huebneri steniptera. Male (Wingspan 36 mm). Left – upperside; right – underside.
Carolusburg, Northern Cape Province, South Africa. 31 August 2007. J. Dobson.
Images M.C. Williams ex J. Dobson Collection.



Melampias huebneri steniptera. Female (Wingspan 34 mm). Left – upperside; right – underside.
Wolfhok, Northern Cape Province, South Africa. 29 August 1983. I. Bampton.
Images M.C. Williams ex Henning Collection.

Type locality: South Africa: “Springbok”.

Diagnosis: Differs from the nominate subspecies in that it is smaller, the forewing is distinctly narrower and more pointed, especially in the male (Pringle *et al.*, 1994). Differences in the early stages of this and the nominate subspecies indicate that *steniptera* may be a distinct species (Pringle *et al.*, 1994).

Distribution: South Africa (Northern Cape Province).

Specific localities:

Northern Cape Province – Springbok (TL); Garies (Swanepoel, 1953); Kamieskroon (Swanepoel, 1953); O’okiep (Swanepoel, 1953); Steinkopf (Mecenero *et al.*, 2013).