

Genus *Aeropetes* Billberg, 1820 Mountain Pride

Enumeratio Insectorum. In Museo Gust. Joh. Billberg 79 (138 pp.). Holmiae.

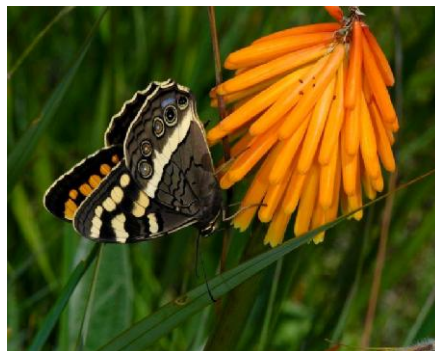
Type-species: *Papilio tulbaghia* Linnaeus, by subsequent designation (Hemming, 1943. *Proceedings of the Royal Entomological Society of London* (B) **12**: 23 (23-30).).

= *Meneris* Doubleday, 1844. *List of the specimens of lepidopterous insects in the collection of the British Museum* **1**: 106 (150 pp.). London. Type-species: *Papilio tulbaghia* Linnaeus, by monotypy.

The genus *Aeropetes* belongs to the Family Nymphalidae Rafinesque, 1815; Subfamily Satyrinae Boisduval, 1833; Tribe Dirini Verity, 1953. The other genera in the Tribe Dirini in the Afrotropical Region are *Paralethe*, *Tarsocera*, *Torynesis*, *Dira*, *Serradinga* and *Dingana*.

Aeropetes (**Mountain Pride**) is a monobasic Afrotropical genus. The single species is confined to southern Africa.

**Aeropetes tulbaghia* (Linnaeus, 1764)# Mountain Pride



Mountain Pride (*Aeropetes tulbaghia*). Images courtesy Steve Woodhall.

Papilio tulbaghia Linnaeus, 1764. *Museum Ludovicae Ulricae Reginae* 284 (720 pp.). Holmiae.

Meneris tulbaghia (Linnaeus, 1764). Doubleday, 1844: 106.

Meneris tulbaghia Linnaeus. Trimen, 1862a.

Meneris tulbaghia (Linnaeus, 1764). Trimen & Bowker, 1887a.

Aeropetes tulbaghia (Linnaeus, 1764). Hemming, 1943.

Aëropetes tulbaghia Linnaeus. Swanepoel, 1953a.

Meneris tulbaghia (Linnaeus, 1764). Dickson & Kroon, 1978.

Aeropetes tulbaghia (Linnaeus, 1764). Pringle *et al.*, 1994: 53.



Aeropetes tulbaghia. Male (Wingspan 75 mm). Left – upperside; right – underside.
Golden Gate Highlands National Park, Free State Province, South Africa. 9-14 January, 2001. M. Williams.
Images M.C.Williams ex Williams Collection.



Aeropetes tulbaghia. Female (Wingspan 85 mm). Left – upperside; right – underside.
Verlorenvlei, Mpumalanga Province, South Africa. 30 December 2002. J. Dobson.
Images M.C.Williams ex J. Dobson Collection.

Alternative common name: Table Mountain Beauty.

Type locality: [South Africa]: “Tulbagh”. [Lectotype designated by Honey & Scoble, 2001: 389.]

Distribution: Zimbabwe (east), South Africa (Limpopo Province, Mpumalanga, North West Province, Gauteng, Free State Province, KwaZulu-Natal, Eastern Cape Province, Western Cape Province), Swaziland (Duke *et al.*, 1999), Lesotho.

Specific localities:

Zimbabwe – Vumba (Van Son, 1955); Inyanga (Van Son, 1955).

Limpopo Province – The Downs – Lekgalameetse Nature Reserve (Swanepoel, 1953); Haenertsburg (Swanepoel, 1953); Wolkberg (Van Son, 1955); Louis Trichardt (Van Son, 1955).

Mpumalanga – Volksrust (Swanepoel, 1953); Barberton (Swanepoel, 1953); Lydenburg (Swanepoel, 1953); Graskop (Swanepoel, 1953); Machadodorp (Van Son, 1955); Dullstroom (Van Son, 1955); Belfast (Van Son, 1955); Lochiel (Van Son, 1955); Mount Anderson (Van Son, 1955); Mariepskop (Van Son, 1955); Verloren Vallei Nature Reserve (Warren, 1990); Sterkspruit Nature Reserve (Williams); Buffelskloof Nature Reserve (Williams).

North West Province – Breednek near Buffelspoort Dam (Williams).

Gauteng – Magaliesberg (Swanepoel, 1953); Pretoria (Swanepoel, 1953); Krugersdorp (Van Son, 1955); Witpoortjie (Van Son, 1955); Linksfield Ridge, Johannesburg (Hennings).

Free State Province – Ladybrand (Swanepoel, 1953); Ficksburg (Swanepoel, 1953); Bethlehem (Swanepoel, 1953), Golden Gate Highlands National Park (male illustrated above); Warden (Williams); Platberg, Harrismith (Dobson, Williams & Schutte, unpublished, 2010); Cyferfontein [-30.3736 25.8131] (R. Griesel, unpublished).

KwaZulu-Natal – Kokstad (Swanepoel, 1953); Loteni (Swanepoel, 1953); Giants' Castle (Swanepoel, 1953); Mont-aux-Sources (Swanepoel, 1953); Pietermaritzburg (Swanepoel, 1953); Greytown (Swanepoel, 1953); Majuba Mountain (Swanepoel, 1953); Garden Castle (Van Son, 1955); Nongoma (Van Son, 1955); Vryheid (Van Son, 1955).

Eastern Cape Province – Grahamstown (Trimen & Bowker, 1887); Port Elizabeth (Swanepoel, 1953); Suurberg (Swanepoel, 1953); Somerset East (Swanepoel, 1953); Winterberg (Swanepoel, 1953); King William's Town (Swanepoel, 1953); Queenstown (Swanepoel, 1953); Sterkstroom (Swanepoel, 1953); Dordrecht (Swanepoel, 1953); Maclear (Swanepoel, 1953); Burghersdorp (Swanepoel, 1953); Aliwal North (Swanepoel, 1953); Hogsback (Van Son, 1955); Stutterheim (Van Son, 1955); Katberg (Van Son, 1955); Lootsberg (Van Son, 1955).

Western Cape Province – Tulbagh (TL); Sea Point (Trimen & Bowker, 1887); Cape Town (Swanepoel, 1953); Paarl (Swanepoel, 1953); Franschhoek (Swanepoel, 1953); Worcester (Swanepoel, 1953); Caledon (Swanepoel, 1953); Swellendam (Swanepoel, 1953); Ladismith (Swanepoel, 1953); George (Swanepoel, 1953); Stellenbosch (Van Son, 1955); Muizenberg (Van Son, 1955); Kalk Bay (Van Son, 1955); Bains Kloof (Van Son, 1955); Swartberg Pass (Van Son, 1955); Garcia's Pass (Van Son, 1955); Knysna (Van Son, 1955); Coldstream (Van Son, 1955).

Lesotho – Throughout (Swanepoel, 1953).

Habitat: Temperate grassland. In the Cape Peninsula specimens may be found virtually at sea-level.

Habits: The flight is powerful and direct but specimens often seek the shade of rock overhangs or embankments during the hotter hours of the day. Both sexes feed avidly from flowers, almost always those with orange or red inflorescences. Frequently visited flowers include those of the genera *Leonotis* (wild dagga), *Kniphofia* (red-hot pokers), *Watsonia*, *Crassula*, *Brunsvigia*, *Nerine* and *Disa* (Pringle *et al.*, 1994). It is the sole pollinator of a number of threatened fynbos plant species, including the red disa orchid (*Disa uniflora*) and *Disa ferruginea* (Marloth, 1896; Vogelpoel, 1987; Johnson, 1992; Johnson, 1994; Johnson & Bond, 1994; Vogelpoel, 1994).

Flight period: September to June but most plentiful from December to March (Pringle *et al.*, 1994).

Early stages:

Trimen & Bowker, 1887, Vol. 1: 126 [as *Meneris Tulbaghia* (L.); Grahamstown, Eastern Cape and Cape Town, Western Cape].

“The early stages of *Tulbaghia* were discovered at Highlands, near Grahamstown, by Mrs. F.W. Barber, who in 1864 sent me drawings of them, and a dead specimen of the pupa, from which the following descriptions were made. **Larva.** Pale bluish-green; a conspicuous black, dorsal stripe from head to tail. Head chestnut-red; legs ochreous; spiracular rings black. “Found on *Hebenstreitia* and on several species of *Compositae*, in high sheltered situations among rocks, September and October. The young larva is of a much yellowish green than in its full-grown state.” – M.E. Barber. In 1863 twenty larvae were hatched from eggs laid by a specimen captured near Cape Town. When just emerged, they were about ¼ inch in length, rather closely set with bristly hairs, and with the head large. Their colour was sandy-yellowish. They would not eat various plants which I offered them, and I therefore liberated the survivors. **Pupa.** “Semi-transparent, French-white in colour” (M.E.B.) Abdomen with a dorsal row, and on each side three rows, of small black spots; rest of surface irrorated with black dots for the greater part; some larger black spots at dorsal and lateral angles, and about head, and a row of them across outer portion of wing-covers. Anal prominence at point of suspension black. “Suspended to ferns or other plants growing under shelving rocks. Imago emerged from pupa after two months” (M.E.B.)

On 24th December 1876 Mr. C.A. Fairbridge took two examples (♂ and ♀) in his garden at Sea Point, near Cape Town, of which the ♂ individual had only just emerged from the chrysalis. The pupa-skin, which he forwarded with the butterfly, was attached to a slight silken web among dry stalks and leaves on a trellis immediately above a bank thickly covered with the “Kweek” grass (*Stenotaphrum glabrum*); and Mr. Fairbridge conjectures that this grass was probably the food-plant of the larva. Mrs. Barber informed me that she doubted if the larva fed on the plants on which she found it, as she had not seen it eating any of them.”

Trimen & Bowker, 1889: 396 [as *Meneris Tulbaghia*; Cape Town, Western Cape].

“I found a full-grown larva of this species at Rondebosch, near Cape Town, on the 19th November 1885, and append the following description of it, viz.: - Ochre-yellow, with a broad conspicuous median dorsal blackish stripe, narrowing toward tail; on each side a supra-spiracular waved rather indistinct waved dusky-grey stripe; spiracles ringed with blackish; all the legs and the under surface of a very much paler and duller ochre-yellow. Head dark-red, set sparsely but generally with short stiff black bristles; body generally (including legs and

two short acute hindward-pointing projections at tail) set sparsely with short whitish bristles, - those on the body planted in regular successive transverse lines, which are closer together on the hinder part of each segment. Rather broad and flattened dorsally, tapering gradually toward the tail from the tenth segment; head globose, - the next adjoining segment somewhat constricted. Length, 2¼ inches.” Footnote: “It remains to be seen whether the larva varies irregularly or sexually, or perhaps locally, as regards green or ochre-yellow colouring. Mrs. Barber mentions that her pale-green larva was much yellower in the younger stage, and certainly all the young ones hatched from the eggs laid by the Cape Town ♀ mentioned in the text were sand-yellowish.” “This exceedingly sluggish larva was resting near the top of a wooden fence (on which I had previously discovered two pupae); it seemed about to pupate, but did not do so until the 25th November. The butterfly (a ♀) emerged on 26th December.

The fence in question divided a public road from a piece of ground bare of vegetation in the immediate neighbourhood of the fence, except for a bank recently planted with the “Kweek” grass (*Stenotaphrum glabrum*), - the plant mentioned in the text as conjectured to be the food-plant of *Tulbaghia*. Long and careful search on this bank, however, failed to produce another larva.

The following description of the pupa is made from three specimens, viz., the two found suspended on the fence on 14th and 19th November respectively, and that of which the larva pupated on 25th November. Pale sandy-yellowish, with a generally-distributed pinkish-white bloom; semi-transparent; wing-cases very finely and indistinctly striolated with short grey lines. Numerous small spots and dots of black, of which the following are the principal, viz., a median longitudinal dorsal abdominal series, of which the two spots at base of abdomen are much larger than the others; also another abdominal series on each side of back, with a larger suffused spot at base; two spots on each blunted side of thorax; three across back of thorax in front; two at extremity of head, and one on lower edge of each eye-case; three, at unequal distances, along leg-cases; on each wing-case, near frontal margin, one at base, and two about middle, and also a straight transverse series of six minute spots beyond middle; on each side of abdomen four series of small or minute spots; at base of abdomen beneath, immediately beyond end of wing-cases, a median elongate roughened double blackish streak, apparently marking the case of the termination of the maxillae. Anal foot-stalk black, flattened beneath and hollowed, sending off two ridges on under surface of end of abdomen. Length, 1 in. 4 lin.; greatest depth, from hollow of back to meeting-line of wing-cases in front of breast, 7½ lin.; greatest width, 5 lin. Attached to a small quantity of strong reddish-brown silk, in one case near the top of the fence, and in the other near the bottom close to the ground. The upper one was in the depression or channel formed by the over-lapping of one board over the other; it was quite unconcealed, and indeed conspicuous on the black of the fence. The other one, on the contrary (a thicker and rounder individual, with all the black markings stronger), was not only partly sheltered by a grass (*Briza major*), but also in close approximation to some spider’s web and the bud-sheath of a *Pinus*; in this case (as in the one at Seapoint recorded in the text) the pale colour and black specklings of the pupa rendered it decidedly inconspicuous. The smaller pupa from the top of the fence produced a ♂ *Tulbaghia* on the 8th December. The larger one died, but I conclude, from its size and agreement in stronger black markings with the pupa resulting from the larva above described, that it was that of a ♀.”

Clark, *in* Van Son, 1955: 47 [as *Aeropetes tulbaghia*].

Egg – scattered in grass by female when settled; elongated dome-shaped; averaging 1,1 mm diameter by 1,2 mm high; pale watery yellow gradually turning pale brown; chorion with very faint netting tracery, fading away on lower portions; egg stage 9-13 days. **First instar larva** – eats way out near top of egg and, after a rest, consumes none to some of shell; 3,5 mm long; white with salmon dorsal and lateral stripes; portion just below lateral ridge also salmon; as larva develops, salmon subdorsal and spiracular lines appear and space between spiracular line and lateral line assumes a dull green colour; white portion of anterior segments changes to pale blue-green but posterior to segment 7 shading to very pale dull yellow on final segment; salmon lines fading to pale pink posteriorly; head pale dull yellow with brown stripe across front; setae black and finely barbed; larva has a row of black setae on black-topped white moles, one per segment, on each side of dorsal line; on left side those on segments 1 and 2 lean forward and on right side those on segments 1-10 lean forward, remainder lean backward; a little lower down side a row of shorter setae, one per segment; these setae white, except on first two segments where they are black and long, and are set on white moles; on segments 1-10, on both sides, they lean forward, on remainder they lean backward; lower down side a row of medium-sized black setae on white moles, one per segment, placed in centre of lateral line; on leading segments they point outward and upward with a slight forward bend, but towards centre they have a more outward and forward bend, then gradually straightening and sweeping backward on the posterior segments; lateral ridge bears two setae, but on segments 2, 3, 11 there is only one; spiracles on segments 1 and 11 resemble truncated cones and protrude noticeably; larva crawls to edge of young blade of grass and feeds on edge; eats a small section, rests, then moves to another portion and eats a section from the edge of blade; grows to 7 mm in 9-11 days; settles down to moult, which takes a further two days; discarded larval skin not eaten. **Second instar larva** – dull white with salmon pink dorsal, subdorsal, lateral and spiracular lines; below lateral ridge touched with same colour but changing to pink ventrally, except prolegs which are inclined to yellow; dorsal line darkens at each extremity and is split on centre segments; subdorsal and spiracular lines very thin; lateral line fairly broad but pinched on second wrinkle of each segment; head pale dull yellow with six faint grey vertical stripes; setae dull yellow; body

setae in rows as in 1st instar but additional rows of small whitish setae on white moles have developed above and below subdorsal line, and above and below lateral line; setae in centre of each segment on lower row placed higher than rest, giving row a wave; more setae per segment because there is now a mole on each wrinkle except the thin posterior one; grows to 10-12 mm in 5-13 days. **Third instar larva** – ground colour either very pale yellow-brown or pale green; in the brown variety dorsal line is black at extremities and split on centre segments; in some cases line on centre segment inclined to brown; in most larvae dorsal line edged with yellowish white; subdorsal line split into three salmon lines with dull yellow in between; lines converge on segment 11 and on forked extremity; lateral line broad, black-brown, darkening at edges and raised at centre of each segment; in some cases centre portions fairly light grey, giving appearance of a double line; spiracular line broken into faint streaks and below lateral ridge is brown, shading to pale yellow over ventral portions; head dull yellow with faint stripes; in green variety dorsal line brown, deepening to black at extremities; centre split and in some larvae line is indistinct; subdorsal line marked by deepening in colour which may be edged below by broken line; lateral line salmon and below lateral ridge salmon, shading to pale green on ventral portions; spiracles black and very conspicuous; head pale brown; setae arranged as in previous instar but more numerous on ventral portions; grows to 16-18 mm in 20-31 days. **Fourth instar larva** – two colour variations, with intermediates; stripes less distinct than previous instar except for black dorsal line; portions under lateral ridge lack distinct colour; major spines golden brown and much longer; head pale orange-yellow with black setae set on reddish brown moles; as instar progresses head darkens, becoming almost brick-red; larvae live at roots of grass and crawl up blades to feed; grows to 25-29 mm in 20-30 days. **Fifth instar larva** – light green or light yellow-brown, with broad black dorsal line, thinning toward extremities and edged with lighter ground colour; lines green or brown depending on ground colour but always faint or absent; head brick-red with small black setae on dull red moles; green larvae of previous instar may be brown in this instar or *vice versa*; feeds with deliberate bites, and movements slow and deliberate; grows to 38-39 mm in 25-40 days. **Sixth (final) instar larva** – pale green, inclined to yellow, or pale reddish brown; intermediate colour forms occur; broad black dorsal line with light, sometimes almost white, edging; other body markings largely obsolete; lateral line reduced to blotches of pale salmon-red or brown at junctions of segments; posterior wrinkle in middle segments pale salmon-red or brown; head rich brownish red with black setae on black-tipped red moles; spiracles jet black and prominent, especially on green colour form; main setae on upper portions of body black-brown and arise from white moles; lesser setae white on white moles; grows to 60-65 mm in 40-50 days; crawl away to some suitable place to pupate; larva shrinks and colour fades; spins a mat to which cremastral hooks are attached; hangs head downwards to pupate; prepupal stage may be up to eight days. **Pupa** – pale dull yellow with black markings; cremaster black, touched with salmon; head well rounded and wing cases prominent ventrally, and rounded; pupal stage 20-40 days; apparently more than one brood per year – eggs laid in autumn produce adults in Spring and Summer; eggs from these adults produce second generation in late Summer and Autumn.

Dickson, 1972.

Larval food:

Ehrharta erecta Lam. (Poaceae) [Clark, *in* Van Son, 1955: 50].

Hyparrhenia hirta (L.) Stapf (Poaceae) [Clark, *in* Van Son, 1955: 50].

Pennisetum clandestinum Hochst ex. Chiov. (Poaceae) [Dickson, *in* Pringle *et al.*, 1994: 53].

(Suspected to be) *Stenotaphrum secundatum* (Walter) Kuntze (Poaceae) [Fairbridge, *in* Trimen & Bowker, 1887, Vol. 1: 127 and Trimen, *in* Trimen & Bowker, 1889: 396; as *Stenotaphrum glabrum*].