

Genus *Pseudopontia* Plötz, 1870 Ghosts

Stettiner Entomologische Zeitung **31**: 348 (348-349) [September, 1870].

Type-species: *Pseudopontia calabarica* Plötz, by monotypy.

= *Globiceps* Felder & Felder, 1869. *Petites Nouvelles Entomologiques* **1**: [31] ([30-31]). Type-species: *Globiceps paradoxa* Felder & Felder, by monotypy. [Invalid; junior homonym of *Globiceps* Lepeletier & Serville, 1825 (Heteroptera)].

= *Gonophlebia* Felder, 1870 [June]. *Petites Nouvelles Entomologiques* **2**: 95 (95). Type-species: *Globiceps paradoxa* Felder & Felder, by monotypy. [Hemming, 1965 (*Bulletin of Zoological Nomenclature* **22**: 104) proposed the rejection of the name *Gonophlebia* Felder as a *nomen oblitum* in favour of the widely used generic name *Pseudopontia* Plötz. For resolution see Cowan, 1983: 41.]



Mabira Ghost (*Pseudopontia mabira*)
Image courtesy Jeremy Dobson.

The genus *Pseudopontia* belongs to the Family Pieridae Swainson, 1820; Subfamily Pseudopontiinae Reuter, 1896. There are no other genera in the Subfamily Pseudopontiinae in the Afrotropical Region.

Pseudopontia (**Ghosts**) is an Afrotropical genus comprising five species. The genus was revised and expanded from one to five species by Mitter *et al.*, 2011.

**Pseudopontia paradoxa* (Felder & Felder, 1869) Paradox Ghost

Globiceps paradoxa Felder & Felder, 1869. *Petites Nouvelles Entomologiques* **1**: [31] ([30-31]).
Pseudopontia paradoxa (Felder & Felder, 1869). Mitter *et al.*, 2011.



Pseudopontia paradoxa. Male. Left – upperside; right – underside.
Zanaga, Loungou, Congo. April 2010. vd Weghe. ABRI-2019-2941.
Images M.C. Williams ex ABRI Collection.



Pseudopontia paradoxa. Female. Left – upperside; right – underside.
Calabar, eastern Nigeria. November 1995. PW. ABRI-2019-2942.
Images M.C. Williams ex ABRI Collection.

Type locality: [Nigeria]: “Calabar”. Holotype (male) in NHM, London (BMNH 135705).

Re-description:

“Forewing length 22-28 mm. Wings rounded, unmarked, translucent, nearly white, slightly greenish. Body white, eyes green, legs green. Antennae unisulcate. Most wing scales small, highly specialized, bifid, non-overlapping. Forewing has a dense area of overlapping scales along the basal one-third of the anal vein (not ultraviolet-reflective). Forewing veins M1 and M2 stalked with Rs2 + 3 + 4. Forewing vein Rs1 emerges from the discal cell slightly proximal to or at its distal end. Hindwing vein Sc + R secondarily fused with Rs before middle of the wing. Hindwing vein M2 stalked with M1. Lamella of metadiscrimen runs straight into the furca. Hind tibia without spurs. Genitalia – no differences from *P. australis*: harpes fused ventrally; uncus two-lobed.” (Mitter *et al.*, 2011).

Distribution: Ivory Coast, Ghana, Nigeria, Cameroon, Equatorial Guinea (Rio Muni and Bioko), Gabon, Angola (Mendes *et al.*, 2018).

Specific localities:

Ivory Coast – Yapo Forest (Mitter *et al.*, 2011); Alepe Forest (Mitter *et al.*, 2011).

Ghana – Ankasa N.P. (Larsen, 2005a); Dixcove (Maessen, *vide* Larsen, 2005a); Takoradi (Maessen, *vide* Larsen, 2005a); Prah-Suhien Forest, 20 km east of Kakum (Larsen, 2005a).

Nigeria – Calabar (TL); Oban Hills (Larsen, 2005a); Okwangwo (Larsen, 2005a); Kagoro (Larsen, 2005a); Gashaka-Gumpti (Larsen, 2005a); Cross River (Mitter *et al.*, 2011).

Cameroon – Korup (Lees, 1989); Mount Entinde (Mitter *et al.*, 2011); Edea (Mitter *et al.*, 2011); Mukonje near Kumba (Mitter *et al.*, 2011); Mbio-Mamfe (Mitter *et al.*, 2011); Johan-Albrechts-Hohe (Mitter *et al.*, 2011); Yaounde (Mitter *et al.*, 2011); Akoefin (Mitter *et al.*, 2011); Lolodorf (Mitter *et al.*, 2011).

Equatorial Guinea – Nkolentangan (Mitter *et al.*, 2011); Benitogebiet (Mitter *et al.*, 2011); Makomo Campogebiet (Mitter *et al.*, 2011); Makomo Mtungebiet (Mitter *et al.*, 2011); Monte Bata (Mitter *et al.*, 2011).

Gabon – Waka National Park (Mitter *et al.*, 2011).

Habitat: Wet forests (Mitter *et al.*, 2011).

Habits: Flight very weak, but sustained, occasionally settling on flowers.

Early stages: Nothing published.

Larval food:

Rhopalopilia pallens Pierre (Opiliaceae) [Lees, 1989; Korup, Cameroon].

calabarica Plötz, 1870 (as sp. of *Pseudopontia*). *Stettiner Entomologische Zeitung* **31**: 348 (348-349). Nigeria: “Alt-Calabar, Guinea”. Holotype in Pogge Collection, Greifswald University, Germany. Formally synonymized with *Pseudopontia paradoxa* (Felder & Felder, 1869) by Kirby (1871).

cephus Ehrmann, 1894 (as sp. of *Pseudopontia*). *Journal of the New York Entomological Society* **2**: 77 (77-78). Liberia: “Grand Sess, West Africa”. This is a misnomer: the description includes black markings on the wing margins, and therefore it is not *Pseudopontia* (Mitter *et al.*, 2011: 155).

****Pseudopontia gola* Sáfián & Mitter, 2011**
West African Ghost

Pseudopontia gola Sáfián & Mitter, 2011. *Systematic Entomology* **36**: 156 (139-163).



Pseudopontia gola. Male. Left – upperside; right – underside.
Putu Range, Liberia. December 2010. Safian, Zakar. ABRI-2019-2946.
Images M.C. Williams ex ABRI Collection.



Pseudopontia gola. Female. Left – upperside; right – underside.
Putu Range, Liberia. January 2011. Safian, Zakar. ABRI-2019-2947.
Images M.C. Williams ex ABRI Collection.

Type locality: Sierra Leone: “Eastern Province, Gola North Forest Reserve, 7.6047°N, 11.0392°W, 26 March 2009 (Sáfián) (UM-S1)”. Holotype (male) preserved as mounted wings and frozen tissue SS-08-SL11.

Diagnosis:

“Differs from *P. paradoxa* only in nucleotide sequences of *COI* and nuclear genes *wingless* and *CAD*, and in AFLP data. No morphological differences have been detected. Forewing length 22-25 mm. Differs from *P. mabira* in larger size, and in that stalk joining hindwing veins M1 and M2 is usually shorter in *P. mabira*. Differs also in nucleotide sequences of *COI* and

nuclear genes *wingless* and *CAD*, and in AFLAP data. Differs from *P. australis* and *P. zambezi* in the following: secondary fusion of hindwing veins Sc + R with Rs, which is not found in *P. australis* or *P. zambezi*; in males, forewing scales surrounding part of anal vein are not UV-reflective, as well as in nucleotide sequences of *COI*, *wingless*, *DDC* and *CAD*, and in AFLP data.” (Mitter *et al.*, 2011).

Etymology: The specific epithet is in reference to the Gola Forest Reserve.

Distribution: Sierra Leone, Liberia.

Specific localities:

Sierra Leone – Gola Forest Reserve (TL).

Liberia – Mount Coffee (Mitter *et al.*, 2011); Cape Mount (Mitter *et al.*, 2011); Kaouyeke (Mitter *et al.*, 2011).

Habitat: Rainforest (Mitter *et al.*, 2011).

Habits: The flight is very slow and low down, in the dark interior of wet forests (Safian, 2015). Safian (2015) describes courtship behavior in some detail. It is very partial to the flowers of *Geophila obvallata* (Rubiaceae), a forb growing along forest paths; dozens may hover around every plant, competing for the few available flowers (Larsen, 2005a). Flies in even the gloomiest parts of the forest undergrowth (Larsen, 2005a).

Early stages:

Safian, 2015 [egg, larva & pupa]

Larval food:

Pseuderanthemum tunicatum (Afzel.) Milne-Redh. (Acanthaceae) [Owen, 1971; Sierra Leone; oviposition only; Safian (2015) regards this record to be very improbable].

Urobotrya congolana ssp. *afzelii* (Engl.) P. Hiepko (Opiliaceae) [Safian, 2015; Liberia/Sierra Leone].

****Pseudopontia mabira* Mitter & Collins, 2011**
Mabira Ghost



Mabira Ghost (*Pseudopontia mabira*)
Image courtesy Jeremy Dobson.

Pseudopontia mabira Mitter & Collins, 2011. *Systematic Entomology* **36**: 155 (139-163).



Pseudopontia mabira. Male (Wingspan 41 mm). Left – upperside; right – underside.
Mabira Forest, Uganda. 14 September 2008. P. Ward.
Images M.C. Williams ex Dobson Collection.



Pseudopontia mabira. Female. Left – upperside; right – underside.
Mount Hoyoy, Kivu, Democratic Republic of Congo. August 2011. ABRI Leg. ABRI-2019-2943.
Images M.C. Williams ex ABRI Collection.

Type locality: Uganda: “Mabira Forest, 0.3848°N, 33.01513°E, 1290 m a.s.l., 5 July 2009 (P.R.F. Ward)”.
Holotype (male) in African Butterfly Research Institute, Nairobi.

Diagnosis:

“Differs from *P. paradoxa* in the following: stalk joining hindwing veins M1 and M2 is usually shorter in *P. mabira* sp. n. Forewing length is smaller than *P. paradoxa*. Also differs in nucleotide sequences of COI and nuclear genes *wingless* and *CAD*, and in AFLP data. Differs from *P. australis* and *P. zambezi* sp. n. in the following: secondary fusion of hindwing veins Sc + R with Rs, which is not found in *P. australis* and *P. zambezi* sp. n.; in males, forewing scales surrounding part of anal vein are not UV-reflective; as well as in *COI* sequence (‘barcode’), nucleotide sequences of *wingless*, *DDC*, and *CAD*, and in AFLP data.” (Mitter *et al.*, 2011).

Etymology: The specific epithet is in reference to the Mabira Forest Reserve.

Distribution: Central African Republic, Democratic Republic of Congo, Uganda.

Specific localities:

Central African Republic – Dzanga (Noss, 1998).

Democratic Republic of Congo – Ituri Forest (Ducarme, 2018); Semuliki Valley (Ducarme, 2018).

Uganda – Mabira Forest (TL); Budongo Forest (Mitter *et al.*, 2011); Kibale Forest (Mitter *et al.*, 2011); Msiisi (Mitter *et al.*, 2011); Unyoro-Budongo (Mitter *et al.*, 2011); Buamba Valley, Semuliki District (Mitter *et al.*, 2011); Ankole (Mitter *et al.*, 2011); Semuliki N.P. (S. Forbes, pers. comm., 2017).

Habitat: Forest.

Habits: Nothing published.

Early stages: Nothing published.

Larval food: Nothing published.

****Pseudopontia australis* Dixey, 1923**
Southern Ghost

Pseudopontia paradoxa australis Dixey, 1923. *Transactions of the Entomological Society of London* 1922: 64 (61-64).

Pseudopontia australis Dixey, 1923. Mitter *et al.*, 2011: 156 **stat. n.**

Type locality: [Democratic Republic of Congo]: “Southern Congo, Kassai River, Luebo district”. Lectotype (male): Democratic Republic of Congo: Kasai Province, Luebo, prior to 1906 (Paul Landbeck) (HMO). Labels (3): ‘Congo State, SW of, 1,345 ft, Kassai R. Luebo District, Forest, Paul Landbeck, coll. pres. 1906 Zool Mus Tring’, ‘1906-3328’, ‘Selected as Lectotype, T.B. Larsen det. 2009’.

Diagnosis:

‘Differs from typical *P. paradoxa* only in the fact that the costal and subcostal veins in the hind-wing are separated by a distinct interval, running parallel with each other for a short distance, but never joining’ (Dixey, 1923, p. lxiv). “Also differs from *P. paradoxa* in the following: forewing length is slightly smaller (20-25 mm); forewing vein M2 emerges from the common stalk two-thirds to three-fourths of the way from the end of the cell to the M1 branch, rather than at most halfway between those points; forewing vein Rs1 is stalked for 0.5-3 mm with Rs2 + 3 + 4 + M1 + M2, rather than emerging from the discal cell proximal to or at its distal end. In males only, the dense area of overlapping wing scales along the anal vein of the forewing is ultraviolet-reflective. Differs from *P. mabira* sp. n. and *P. gola* sp. n. in all of the same characters except size; *P. mabira* sp. n. is slightly smaller than *P. australis*. Differs from *P. zambezi* sp. n., which has a shorter length of near contact (<0.8 mm) between costal and subcostal hindwing veins, and usually does not have forewing vein Rs1 stalked together with M1 + M2 + Rs2 + 3 + 4. In *P. zambezi* sp. n. M2 vein emerges from the common stalk halfway between the end of the discal cell and the M1 branch. Also differs from each of the other species in nucleotide sequences of *COI* and nuclear genes *wingless*, *DDC* and *CAD*, and in AFLP data.”

Distribution: Gabon, Congo, Angola, Democratic Republic of Congo.

Specific localities:

Gabon – Mpassa, Bateke Plateau (Vande weghe, 2010).

Democratic Republic of Congo – Luebo, Kasai Province (TL); Mayumbe Forest, Bas-Congo (Mitter *et al.*, 2011).

Habitat: Forest.

Habits: Nothing published.

Early stages: Nothing published.

Larval food: Nothing published.

****Pseudopontia zambezi* Mitter & W. De Prins, 2011**
Zambezi Ghost

Pseudopontia zambezi Mitter & W. De Prins, 2011. *Systematic Entomology* **36**: 156 (139-163).



Pseudopontia zambezi. Male. Left – upperside; right – underside.
Ikkelenge, Zambia. June 1974. A. Heath. ABRI-2019-2944.
Images M.C. Williams ex ABRI Collection.



Pseudopontia zambezi. Female. Left – upperside; right – underside.
Jimbe River, Ikkelenge, Zambia. March 1976. A. Heath. ABRI-2019-2945.
Images M.C. Williams ex ABRI Collection.

Type locality: Zambia: Isombu Stream (11.11°S, 24.267°E; 1260 m a.s.l., 2 October 1973; A. Heath), Ikelenge, Mwinilunga District. Holotype (male) in ABRI.

Diagnosis:

“Differs from *P. paradoxa*, *P. gola* sp. n. and *P. mabira* sp. n. in that hindwing vein Rs nearly touches but does not fuse with Sc + R before middle of the wing, then separates; also, in males the dense area of the wing scales along the basal one-third of the anal vein of the forewing is ultraviolet-reflective. Differs from *P. australis* in the following: very short near contact (< 0.8 mm) between Sc + R (costal) and Rs (subcostal) hindwing veins; more proximal forewing M2 vein branch, which lies at most halfway between the M1 branch and the end of the cell in *P. zambezi* sp. n.; forewing vein Rs1 emerges from the discal cell at the end of the cell or only slightly beyond it in a very short stalk with M1 + M2 + Rs2 + 3 + 4. Forewing length 2 mm smaller on average. Differs from all four other species in nucleotide sequences of *COI* and nuclear genes *wingless*, *DDC* and *CAD*, and in AFLP data”

Distribution: Angola, Democratic Republic of Congo (south), Zambia (north-west).

Specific localities:

Democratic Republic of Congo – Musokatanda (10.9°S, 25.1°E), Katanga Province (Mitter *et al.*, 2011).

Zambia – Mwinilunga (Pinhey, 1962; male illustrated above); Jimbe (Heath, 1977); Ikelenge (Heath *et al.*, 2002); Zambezi Bridge (11.233°S, 24.267°E) (Mitter *et al.*, 2011); Mwinilunga (11.72°S, 24.42°E) (Mitter *et al.*, 2011).

Habitat: Forest, mostly at elevations over 800 m (Mitter *et al.*, 2011).

Habits: Nothing published.

Early stages:

Heath, 1977 (as *paradoxa* ssp. *australis*; Jimbe, Zambia).

Larval food:

Pentarhopalopilia marquesii (Engl.) Hiepko (Opiliaceae) [Heath, 1977; as *Pentarhopalopilia marquesii*; *P. paradoxa* ssp. *australis*; Jimbe, Zambia].

siccana Pinhey, 1962 (as f. of *Pseudopontia paradoxa australis*). *Occasional Papers of the National Museum of Southern Rhodesia* 3: 885 (871-891). Zambia: “Mwinilunga District”.