

Genus *Calleagris* Aurivillius, [1925] Milky Flats

In Seitz, [1908-25]. *Die Gross-Schmetterlinge der Erde*, Stuttgart (2) **13** *Die Afrikanischen Tagfalter*: 571 (614 pp.).

Type-species: *Antigonus jamesoni* Sharpe, by monotypy.

The genus *Calleagris* belongs to the Family Hesperidae Latreille, 1809; Subfamily Tagiadinae Mabille, 1878; Tribe Tagiadini Mabille, 1878.

Note that Huang et al., 2024 place the tribe Tagiadini Mabille, 1878 within subfamily Pyrginae Burmeister, 1878. However, this change was not formalized.

Calleagris (**Milky Flats**) is an Afrotropical genus of four species.

**Calleagris hollandi* (Butler, 1897) Dusted Milky Flat

Sarangesa hollandi Butler, 1897. *Proceedings of the Zoological Society of London* **1896**: 840 (817-850).



Calleagris hollandi. Male. Left – upperside; right – underside.
Ikelenge, Zambia. 10 June 2007.
Images M.C. Williams ex Gardiner Collection.



Calleagris hollandi. Female. Left – upperside; right – underside.
Chipili, Zambia. 13 September 2001.
Images M.C. Williams ex Gardiner Collection.

Type locality: [Tanzania]: “Mbalizi Valley, Unyika”.

Distribution: Angola, Democratic Republic of Congo (Shaba), Uganda (Kielland, 1990d), Tanzania

(west), Malawi (north), Zambia (north).

Specific localities:

Angola – Bie Province; Huambo Province (Mendes *et al.*, 2013).

Uganda – Semuliki N.P. (Davenport & Howard, 1996).

Tanzania – Mbalizi Valley, Unyika (TL); Mpanda (Kielland, 1990d); Kigoma (Kielland, 1990d).

Malawi – Nyika N.P. (J. Timberlake, pers. comm., 2019).

Zambia – Ikelenge (Heath *et al.*, 2002); Mwinilunga (Heath *et al.*, 2002); Mufulira (Heath *et al.*, 2002); Luanshya (Heath *et al.*, 2002); Mpongwe (Heath *et al.*, 2002); Mkushi (Heath *et al.*, 2002); Lumangwe Falls (Heath *et al.*, 2002); Mporokoso (Heath *et al.*, 2002); Mafinga Mountains (Heath *et al.*, 2002); South Mutundu River, Mufulira (male illustrated above).

Habitat: Moist woodland. In Tanzania it is local and rare, in woodland from 1 000 to 1 200 m (Kielland, 1990d).

Early stages: Nothing published.

Larval food: Nothing published.

****Calleagris jamesoni* (Sharpe, 1890)**
Spotted Milky Flat

Antigonus jamesoni Sharpe, 1890. *Annals and Magazine of Natural History* (6) 6: 348 (346-350).

Calleagris jamesoni (Sharpe, 1890). Dickson & Kroon, 1978.

Calleagris jamesoni (Sharpe, 1890). Pringle *et al.*, 1994: 311.

Calleagris jamesoni jamesoni. Male (wet season form). Left – upperside; right – underside.
Near Dindiyangwe, Zimbabwe. 2 December 1990.
Images M.C. Williams ex Gardiner Collection.

Calleagris jamesoni jamesoni. Female (wet season form). Left – upperside; right – underside.
Kanea Mt., Morogoro, Tanzania. 21 September 1982. J. Kielland. ABRI Coll.
Images J. Dobson ex ABRI Collection.

Type locality: [Zimbabwe]: “Umvuli River”.

Distribution: Angola, Democratic Republic of Congo, Tanzania, Malawi, Zambia, Mozambique, Zimbabwe, Botswana.

Habitat: *Brachystegia* woodland. In Tanzania subspecies *jacksoni* is common in woodland and savanna, from 1 000 to 1 600 m; subspecies *jamesoni* is found on forest margins and in woodland, from sea-level (Zanzibar) to 1 600 m (Kielland, 1990d).

Habits: Males hilltop, selecting a perch on a twig or leaf of a tree, and chasing intruders with a

characteristic jerky flight. Females are mostly encountered on the slopes (Pringle *et al.*, 1994).

Flight period: All year, with fairly distinct seasonal forms (Pringle *et al.*, 1994).

Early stages:

Paré, in Pringle *et al.*, 1994: 311.

“I found larvae for the first time in October 1989 on *Julbernardia globiflora* and later on *Brachystegia boehmii*. The larvae of the second brood developed very slowly right through the rainy season, through winter, to be ready for the August emergence. The final instar larva is smooth and greyish white, with a rather bulbous red-brown head.”

Larval food:

Brachystegia boehmii Taub. (Fabaceae) [Paré, *in* Pringle *et al.*, 1994: 311].

Julbernardia globiflora (Benth.) Troupin (Fabaceae) [Paré, *in* Pringle *et al.*, 1994: 311].

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Calleagris jamesoni jamesoni. Male (wet season form). Left – upperside; right – underside.
Near Dindiyangwe, Zimbabwe. 2 December 1990.
Images M.C. Williams ex Gardiner Collection.

Calleagris jamesoni jamesoni. Female (wet season form). Left – upperside; right – underside.
Kanea Mt., Morogoro, Tanzania. 21 September 1982. J. Kielland. ABRI Coll.
Images J. Dobson ex ABRI Collection.

Calleagris jamesoni jamesoni. Male (dry season form). Left – upperside; right – underside.
Bala Bala, Zimbabwe. 9 August 1970.
Images M.C. Williams ex Gardiner Collection.

Calleagris jamesoni jamesoni. Female (dry season form). Left – upperside; right – underside.
Harare, Zimbabwe. 2 September 2001.
Images M.C. Williams ex Gardiner Collection.

Type locality: [Zimbabwe]: “Umvuli River”.

Distribution: Democratic Republic of Congo (Shaba), Tanzania (east), Malawi, Zambia, Mozambique, Zimbabwe (east), Botswana.

Specific localities:

Tanzania – Kigonsera (Wichgraf, 1921); Zanzibar (Kielland, 1990d); Uluguru Mountains (Kielland, 1990d); Nguru Mountains (Kielland, 1990d); Image Mountain (Kielland, 1990d); Rubeho Mountains (Kielland, 1990d).

Malawi – Nyika N.P. (J. Timberlake, pers. comm., 2019).

Zambia – Ikelenge (Heath *et al.*, 2002); Mwinilunga (Heath *et al.*, 2002); Mongu (Heath *et al.*, 2002); Solwezi (Heath *et al.*, 2002); Mufulira (Heath *et al.*, 2002); Luanshya (Heath *et al.*, 2002); Mpongwe (Heath *et al.*, 2002); Mkushi (Heath *et al.*, 2002); Chalimbana (Heath *et al.*, 2002); Kafue (Heath *et al.*, 2002); Lumangwe Falls (Heath *et al.*, 2002); Mporokoso (Heath *et al.*, 2002).

Mozambique – Kola Valley, E. of Mt. Chipirone, 1700 ft (Evans, 1951); Vila Gouveia (Pringle *et al.*, 1994); Amatongas Forest (Pringle *et al.*, 1994); Buzi River (male illustrated above).

Zimbabwe – Umvuli River (TL); Mutare (Evans, 1937); Inyanga (M. Williams).

Botswana – Mpandama-Tenga (R. Plowes *vide* Larsen, 1991).

kigonserensis Wichgraf, 1921 (as ab. of *Eagris jamesoni*). *Internationale Entomologische Zeitschrift* **14**: 179 (171-172, 179-180, 195-197). [Tanzania]: “Kigonsera”.

gava Evans, 1937 (as wet-season f. of *Calleagris jamesoni*). *A catalogue of the African HesperIIDae indicating the classification and nomenclature adopted in the British Museum*: 35 (212 pp.). [Zimbabwe]: “S. Rhodesia (Umtali)”.

neavei Evans, 1951 (as ssp. of *Calleagris jamesoni*). *Annals and Magazine of Natural History* (12) **4**: 1268 (1268-1272). [Mozambique]: “Portuguese E. Africa, Kola Valley, E. of Mt. Chipirone, 1700 ft”.

Calleagris jamesoni ansorgei Evans, 1951
Angola Spotted Milky Flat

Calleagris jamesoni ansorgei Evans, 1951. *Annals and Magazine of Natural History* (12) **4**: 1268 (1268-1272).

Type locality: Angola: “Elandswater, Benguella”.

Distribution: Angola.

Specific localities:

Angola – Elandswater, Benguella (TL); Benguela Province; Bie Province; Huambo Province; Kuando-Kubango Province; Kwanza Sul Province; Lunda Sul Province (Mendes *et al.*, 2013).

Calleagris jamesoni jacksoni Evans, 1951
Tanzania Spotted Milky Flat

Calleagris jamesoni jacksoni Evans, 1951. *Annals and Magazine of Natural History* (12) 4: 1268 (1268-1272).

Type locality: [Tanzania]: “Gaita [Geita District], Tanganyika”.

Distribution: Tanzania (west and north).

Specific localities:

Tanzania – Geita District, south of Lake Victoria (TL); Kigoma (Kielland, 1990d); Mpanda (Kielland, 1990d); Tabora (Kielland, 1990d).

**Calleagris lacteus* (Mabille, 1877)
Plain Milky Flat

Tagiades lacteus Mabille, 1877. *Bulletin de la Société Entomologique de France* (5) 7: 39 (39-40).

Calleagris lacteus lacteus. Male. Left – upperside; right – underside.
Kabwelama Forest, Zambia. 27 September 2005.
Images M.C. Williams ex Gardiner Collection.

Calleagris lacteus lacteus. Female. Left – upperside; right – underside.
Kawambwa, Zambia. April 1977. A. Heath. ABRI-2019-2202.
Images M.C. Williams ex ABRI Collection.

Type locality: [Democratic Republic of Congo]: “Congo”.

Distribution: Guinea, Sierra Leone, Liberia, Ivory Coast, Ghana, Benin, Nigeria, Cameroon, Gabon, Congo, Central African Republic, Democratic Republic of Congo, Angola, Uganda, Tanzania, Zambia.

Habitat: Mainly in wetter forest, often near rivers (Larsen, 2005a). In Tanzania it occurs from 800 to 2 200 m (Kielland, 1990d).

Habits: This a rare skipper throughout its range (Kielland, 1990d; Larsen, 2005a). Males may be seen perching and flying around low down inside forest. If disturbed they may fly higher up and land on the underside of a leaf (Larsen, 2005a). Males come to bird droppings (Larsen, 2005a).

Early stages: Nothing published.

Larval food: Nothing published.

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Calleagris lacteus lacteus. Female. Left – upperside; right – underside.
Kawambwa, Zambia. April 1977. A. Heath. ABRI-2019-2202.
Images M.C. Williams ex ABRI Collection.

Type locality: [Democratic Republic of Congo]: “Congo”.

Distribution: Nigeria (Cross River loop), Cameroon, Gabon, Congo, Central African Republic, Democratic Republic of Congo, Angola, Uganda, Tanzania (west), Zambia (north-west, north-east).

Specific localities:

Gabon – Waka National Park (Vande weghe, 2010); Langoue, Ivindo National Park (Vande weghe, 2010); Nouna (Vande weghe, 2010).

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

Angola – Bie Province (Mendes *et al.*, 2013).

Uganda – Semuliki N.P. (Davenport & Howard, 1996).

Tanzania – Kigoma District: Kasoge (Kielland, 1990d); Mahale Ridge (Kielland, 1990d); Kemfu (Kielland, 1990d); Kasye (Kielland, 1990d); Mihumu (Kielland, 1990d).

Zambia – Ikelenge (Heath *et al.*, 2002); Kawambwa (Heath *et al.*, 2002); Chiwoma (female illustrated above).

Calleagris lacteus dannatti (Ehrmann, 1893)
Western Plain Milky Flat

Tagiades dannatti Ehrmann, 1893. *Entomological News* 4: 309 (309-310).
Synonym of *Calleagris lacteus* (Mabille, 1877). Ackery *et al.*, 1995.
Calleagris lacteus dannatti (Ehrmann, 1893). Larsen, 2005a: 478.

Type locality: Liberia: “Piquinnie Ses”.

Distribution: Guinea, Sierra Leone, Liberia, Ivory Coast, Ghana, Benin (south), Nigeria (west).

Specific localities:

Guinea – Nimba Mountains (Larsen, 2005a).

Sierra Leone – Bumbuna (Belcastro, 1986).

Liberia – Piquinnie Ses (TL); Harbel (Lindsey & Miller, 1965); Wologizi (Safian *et al.*, 2020).

Ivory Coast – Banco Forest, Abidjan (H. Warren-Gash, *vide* Larsen, 2005a); Gagnoa (Larsen, 2005a); Agboville (Larsen, 2005a); Issia (Larsen, 2005a); Alepe (Larsen, 2005a); Adiopodoume (Larsen, 2005a); Kakpin/Comoe (Larsen, 2005a); Tai (Larsen, 2005a).

Ghana – Ankasa (Larsen, 2005a); Bia (Larsen, 2005a); Cape Three Points (Larsen, 2005a); Konongo (Larsen, 2005a); Assin Foso (Larsen, 2005a); Neung (Larsen, 2005a); Bobiri Butterfly Sanctuary (Larsen *et al.*, 2007).

Benin – see Coache *et al.*, 2017.

Nigeria – Isheri near Lagos (Larsen, 2005a); Sapoba (Larsen, 2005a); Awka (Mamu Forest) (Larsen, 2005a); Okwangwo (Larsen, 2005a); Oban Hills (Larsen, 2005a).

****Calleagris landbecki* (Druce, 1910)**
Dark Milky Flat

Eagris landbecki Druce, 1910. *Proceedings of the Zoological Society of London* 1910: 375 (356-378).



Calleagris landbecki. Left – male upperside, Nigeria. Right – male underside. Nigeria. Images courtesy Torben Larsen.



Calleagris landbecki. Female. Left – upperside; right – underside. Kawambwa, Zambia. April 1977. A. Heath. ABRI-2019-2202. Images M.C. Williams ex ABRI Collection.

Type locality: [Democratic Republic of Congo]: “Upper Kasai District, Congo Free State”.

Distribution: Sierra Leone, Ivory Coast, Nigeria (Cross River loop), Cameroon, Gabon, Congo,

Central African Republic, Democratic Republic of Congo, Zambia.

Specific localities:

Sierra Leone – Tiwai Island (Belcastro, *vide* Larsen, 2005a; 2 specimens).

Ivory Coast – Fresco (Larsen, 2005a; 2 specimens); Banco (Larsen, 2005a; 1 specimen); Mount Peko (Larsen, 2005a; 1 specimen).

Nigeria – Oban Hills (Larsen, 2005a; 3 specimens).

Cameroon – Korup (T. Helps, *vide* Larsen, 2005a; 1 specimen).

Gabon – Waka (Vande weghe, 2010)

Democratic Republic of Congo – Upper Kasai District (TL).

Habitat: Primary, wet forest (Larsen, 2005a).

Habits: This is a very rare skipper (Larsen, 2005a). On one occasion a male was noted circling furiously in a clearing that had been created by a fallen tree (Larsen, 2005a).

Early stages: Nothing published.

Larval food: Nothing published.