Genus *Tagiades* Hübner, [1819]
Clouded Flats

In Hübner, [1816-[1826]. *Verzeichniss bekannter Schmettlinge* 432 + 72 pp. Augsburg.
Type-species: *Papilio japetus* Stoll, [extralimital] by subsequent designation (Butler, 1870. *Entomologist's Monthly Magazine* **7**: 99 (55-58, 92-99).).

= *Pterygospidea* Wallengren, 1857. *Öfversigt af Kongl. Vetenskaps-Akademiens Förhandlingar. Stockholm* annis 1838-1845. Collecta (n.s.) **2** (4): 53 (55 pp.). Type-species: *Papilio flesus* Fabricius, by subsequent designation (Scudder, 1875. *Proceedings of the American Academy of Arts and Sciences* **10**: 260 (91-293).).

The genus *Tagiades* belongs to the Family Hesperiidae 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.

Tagiades (**Clouded Flats**) is an Old World genus, with three Afrotropical species and a further 15 species from the Oriental and Australian Regions. The extralimital species of *Tagiades* are placed in the subgenera *Tagiades* Hübner, [1819] and *Daimio* Murray, 1875 (Zhang *et al*., 2022: 25).

Taxonomic Comparison

	Zhang *et al*., 2022	Huang *et al*. 2024
Daimio Murray, 1875 (extralimital)	Formally treated as a subgenus.	"It is not surprising that *Daimio* and *Pterygospidea* are two good genera. … Herein, we do not divide this group into three or more subgroups and provisionally treat *Daimio* as a synonym of *Tagiades*." However, no formal changes were made.
Pterygospidea Wallengren, 1857 (African)	Formally treated as a subgenus.	

**Tagiades* (*Pterygospidea*) *flesus* (Fabricius, 1781)#
Clouded Flat

Papilio flesus Fabricius, 1781. *Species Insectorum* **2**: 155 (499 pp.) Hamburgi & Kilonii.
Nisoniades ophion Drury. Trimen, 1866a. [Synonym of *Tagiades flesus*]
Pterygospidea flesus (Fabricius, 1781). Trimen & Bowker, 1889.
Tagiades flesus Fabricius. Swanepoel, 1953a.
Tagiades flesus (Fabricius, 1781). Dickson & Kroon, 1978.
Tagiades flesus (Fabricius, 1781). Pringle *et al*., 1994: 311.


Tagiades flesus. Male (Wingspan 41 mm). Left – upperside; right – underside.
La Lucia, KwaZulu-Natal, South Africa. March 2000. M. Williams.
Images M.C. Williams ex Williams Collection.

Tagiades flesus. Female (Wingspan 46 mm). Left – upperside; right – underside.
New Agatha Forest, Limpopo Province, South Africa. 29 January 2003. J. Dobson.
Images M.C. Williams ex Dobson Collection.

Type locality: [West Africa] "Africa aequinoctiali". Holotype male in Natural History Museum, London (Banks collection).

Distribution: Sub-Saharan Africa, including Senegal, Gambia, Guinea-Bissau (Bacelar, 1949), Burkina Faso, Guinea, Sierra Leone, Liberia, Ivory Coast, Ghana, Togo, Benin (south, west), Nigeria, Cameroon, Equatorial Guinea, Sao Tome and Principe Islands (Mendes & Bivar de Sousa, 2022), Gabon, Congo, Central African Republic, Angola, Democratic Republic of Congo, Sudan, Uganda, Rwanda, Kenya, Tanzania, Malawi, Zambia, Mozambique, Zimbabwe, Botswana (north), South Africa (Limpopo Province, Mpumalanga, North West Province, KwaZulu-Natal, Eastern Cape Province), Swaziland.

In South Africa its distribution covers 123 quarter degree squares (1008 records) [see http://vmus.adu.org.za]. It is regarded as widespread.

Specific localities:

Gambia – Pirang, Abuko, Sanyang, Brufut, Sukuta, Tendaba, Sapo, Walikunda, Janjanbureh Island, Kundam, Basse (Jon Baker, pers. comm, May 2020).

Guinea – Ziama (Safian *et al*., 2020).

Liberia – Wologizi (Safian *et al*., 2020).

Ivory Coast – Yapo Forest (Cock & Congdon, 2011).

Ghana – Bobiri Butterfly Sanctuary (Larsen *et al*., 2007); Boabeng-Fiema Monkey Sanctuary (Larsen *et al*., 2009).

Benin – Houeyogbe Forest (Coache & Rainon, 2016); see Coache *et al*., 2017.

Nigeria – Kaduna (Larsen, 2005a).

Cameroon – Korup (Larsen, 2005a).

Gabon – Libreville (Vande weghe, 2010); Pongara National Park (Vande weghe, 2010); Bitam (Vande weghe, 2010); Kangwe (Vande weghe, 2010); Waka National Park (Vande weghe, 2010); Alembe (Vande weghe, 2010); Lope National Park (Vande weghe, 2010); Ivindo National Park (Ipassa) (Vande weghe, 2010); Mount Belinga (Vande weghe, 2010); Nouna (Vande weghe, 2010); Franceville (Vande weghe, 2010); Leke (Vande weghe, 2010); Ekouyi, Bateke Plateau (Vande weghe, 2010).

Angola – Bie Province; Huila Province; Kwanza Norte Province; Malanje Province; Namibe Province; Uige Province (Mendes *et al*., 2013).

Democratic Republic of Congo – Kikura River, Lifura Valley (Evans, 1937); Ituri Forest (Ducarme, 2018); Central Forest Block (Ducarme, 2018); Mt Mitumba (Ducarme, 2018); Mt Blue (Ducarme, 2018).

Sudan – Aza forest, Amadi District (Evans, 1951)

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

Rwanda – Cyamudongo Forest (Uwizelimana *et al*., 2021).

Kenya – Makadara Forest (Sevastopulo, 1974); Shimba Hills (Sevastopulo, 1974); Ngong Forest (Cock

& Congdon, 2011); Kakamega Forest (Cock & Congdon, 2011); Arabuko-Sokoke Forest (Cock & Congdon, 2011).

Tanzania – Geita, south of Lake Victoria (Jackson, *vide* Kielland, 1990d); Katavi National Park (Fitzherbert *et al*., 2006).

Malawi – Zomba Mountain (Congdon *et al*., 2010).

Mozambique – Mount Chiperone (Timberlake *et al*., 2007); Mount Inago (Congdon *et al*., 2010); Mount Namuli (Congdon *et al*., 2010); Mount Mabu (Congdon *et al*., 2010); Mt Mecula [-12.0772 37.6297] (Congdon & Bayliss, 2013); Mt Yao [-12.4432 36.5114] (Congdon & Bayliss, 2013); Maputo Special Reserve (Miles & Mulvaney, 2022).

Zimbabwe – Victoria Falls (Pringle *et al*., 1994).

Botswana – Moremi Gorge, Tswapong Hills (Larsen, 1991l).

Limpopo Province – Lekgalameetse Nature Reserve ("Malta Forest") (Swanepoel, 1953); Woodbush (Swanepoel, 1953); Duiwelskloof (Swanepoel, 1953); Munnik (Swanepoel, 1953); Sibasa (Swanepoel, 1953); Entabeni (Swanepoel, 1953); Louis Trichardt (Swanepoel, 1953); Wolkberg (Pringle *et al*., 1994).

Mpumalanga – Barberton (Swanepoel, 1953); Nelspruit (Swanepoel, 1953); Graskop (Swanepoel, 1953); Marieps Kop (Swanepoel, 1953); Buffelspoort Nature Reserve (Williams).

North West Province – Magaliesberg Mountains (Williams).

KwaZulu-Natal – Oribi Gorge (Swanepoel, 1953); Umkomaas (Swanepoel, 1953); Durban (Swanepoel, 1953; male illustrated above); St Lucia Bay (Swanepoel, 1953); Eshowe (Swanepoel, 1953); Pietermaritzburg (Swanepoel, 1953); Karkloof (Swanepoel, 1953); Kosi Bay Nature Reserve (Pringle & Kyle, 2002); Tembe Nature Reserve (Pringle & Kyle, 2002).

Eastern Cape Province – East London (Swanepoel, 1953); Bashee River (Swanepoel, 1953); Port St Johns (Swanepoel, 1953); Somerset East (Pringle *et al*., 1994).

Swaziland – Mlawula N. R. (www.sntc.org.sz); Malolotja N. R. (www.sntc.org.sz).

Habitat: From the wettest forest to dense woodland, including Guinea savanna (Larsen, 2005a). In Tanzania from sea-level to 2 200 m (Kielland, 1990d).

Habits: A common skipper (Larsen, 2005a) with a flight pattern that is fast and erratic (Pringle *et al*., 1994). Flies in the semi-shade and settles often and abruptly, with outstretched wings, usually on the underside of a leaf. When it settles suddenly on the underside of a leaf the impression is gained that it has simply disappeared. It is conspicuous on the wing because of the bright white surface of the hindwing underside, which "flashes" on and off. Seldom seen feeding from flowers (Pringle *et al*., 1994); also feeds from bird droppings and occasionally mud-puddles (Larsen, 2005a). Males defend territories along paths and in clearings in the forest (Pringle *et al*., 1994). Sometimes up to half a dozen males display together in a single forest clearing, giving the impression that this is lekking behaviour (Williams, unpublished observations).

Flight period: All year.

Early stages:

Clark, *in* Dickson & Kroon, 1978: 212; plate 4 [as *Tagiades flesus*; Durban, KwaZulu-Natal].

"*Egg*: Laid singly on upperside of a leaf. Pale yellow-cream when laid, changing to red; 0,85 mm diameter by 0,65 mm high, with 16 longitudinal ribs and 34 staggered cross-braces. The surface is covered with minute indentations. Eggs hatch after 7 days. Shell is not eaten. *Larva*: 1st instar 2 to 4 mm in 7 days; 2nd instar 4 to 6 mm in 7 days; 3rd instar 6 to 10 mm in 7 days; 4th instar 10 to 16 mm in 8 days; 5th instar 16 to 28 mm in 10 days. Larva cuts an elliptical trench in a leaf and doubles the cut portion over to form a purse-like cache in which it lives. It makes bigger ones as it grows. Some larvae, especially in the 4th instar, have a 'wet' appearance. At the end of the final instar the larva turns green, which gives it the appearance of being a different species. *Pupa*: 20 mm; imago emerging after 21 days. Pupation takes place within silk-bound leaves. Larva [pupa!] is dusted with white powder and secured by cremastral hooks. The species is multi-brooded."

Henning, Henning, Joannou & Woodhall, 1997: 65 (photograph of final instar larva and pupa).

Larsen, 2005a.

Females have a well-developed brush of anal scales that are deposited on the eggs when these are laid. A. Heath (pers. comm.) observed this and noted that the end of the abdomen is rubbed over the egg until it is no longer recognizable as an egg.

Cock & Congdon, 2011: 29.

Larval food:

Allophylus melliodorus Gilg ex Radlk (Sapindaceae) [Congdon, 2011, pers. comm.; Nguru Mountains, Tanzania].

Dioscorea sp. (Dioscoreaceae) [Golding, 1927; Nigeria].

Dioscorea cotinifolia Kunth (Dioscoreaceae) [Platt, 1921; as *Dioscorea malifolia* Baker].

Dioscorea dregeana (Kunth) T.Durand & Schinz (Dioscoreaceae) [Nichols, *vide* Botha & Botha, 2006].

Grewia spp. (Tiliaceae) [Sevastopulo, 1974; requires confirmation (Cock & Congdon, 2011)].

Leptonychia usambaraensis K. Schum (Malvaceae) [Congdon, 2011, pers. comm.; south Pare Mountains, Tanzania].

Teclea verdoorniana (Engl. & Mendonça) Mziray (Rutaceae) [Vuattoux, 1999; Ivory Coast; confirmation is desirable (Cock & Congdon, 2011)].

ophion Drury, 1782 (as sp. of *Papilio*). *Illustrations of Natural History* **3**: index et 21 (76 pp.) London. "from Africa, near Sierra Leone".

ophelia Evans, 1937 (as dry-season f. of *Tagiades flesus*). *A catalogue of the African Hesperiidae indicating the classification and nomenclature adopted in the British Museum*: 28 (212 pp.). [Democratic Republic of Congo]: "S.E. Congo, (Kikura River, Lifura Valley)".

aza Evans, 1951 (as sp. of *Sarangesa*). *Annals and Magazine of Natural History* (12) **4**: 1269 (1268-1272). **Type locality**: Sudan: "Aza forest, Amadi District, S. Sudan". **Distribution**: Sudan (south), Tanzania (north-west). **Specific localities**: Sudan – Aza Forest, Amadi District (TL). Tanzania – Geita, south of Lake Victoria (Jackson, *vide* Kielland, 1990d). Synonymized with *Tagiades flesus* (Fabricius, 1781) by Larsen, 2010b: 166.

**Tagiades* (*Pterygospidea*) *insularis* Mabille, 1876

Malagasy Clouded Flat

Tagiades insularis Mabille, 1876. *Annales de la Société Entomologique de France* (5) **6**: 272 (251-274).

Tagiades insularis insularis. Male. Left – upperside; right – underside.
Isalo, Madagascar. April 2018. J. Dobson.
Images M.C. Williams ex Dobson Collection.

Tagiades insularis insularis. Female. Left – upperside; right – underside.
Ankarena, Madagascar. April 2006. TCEC & SCC. ABRI-2019-2213.
Images M.C. Williams ex ABRI Collection.

Type locality: Madagascar: "Madagascar".
Distribution: Madagascar, Comoro Islands.
Habitat: Forest, forest margins and anthropogenic environments (Lees *et al*., 2003).
Early stages:

Cock *et al*., 2017 [final instar larva and pupa; nominate subspecies].

Larval food:
Dioscorea sp. (Dioscoriaceae) [Congdon & Collins *in* CRG database, 2016; Maroantsetra, Madagascar].
Dioscorea sp. (Dioscoriaceae) [I. Bampton *vide* Cock *et al*., 2017; Grande Comoro; ssp. *grandis*].

Tagiades (*Pterygospidea*) *insularis insularis* Mabille, 1876
Malagasy Clouded Flat

Tagiades insularis Mabille, 1876. *Annales de la Société Entomologique de France* (5) **6**: 272 (251-274).

Tagiades insularis insularis. Male. Left – upperside; right – underside.
Isalo, Madagascar. April 2018. J. Dobson.
Images M.C. Williams ex Dobson Collection.

Tagiades insularis insularis. Female. Left – upperside; right – underside.
Ankarena, Madagascar. April 2006. TCEC & SCC. ABRI-2019-2213.
Images M.C. Williams ex ABRI Collection.

Type locality: Madagascar: "Madagascar".
Distribution: Madagascar.

Tagiades (*Pterygospidea*) *insularis grandis* Evans, 1937
Large Malagasy Clouded Flat

Tagiades insularis grandis Evans, 1937. *A catalogue of the African Hesperiidae indicating the classification and nomenclature adopted in the British Museum*: 28 (212 pp.).

Type locality: Comoro Islands: "Grand Comoro".
Distribution: Comoro Islands (Grand Comore, Moheli, Anjouan).

Tagiades (*Pterygospidea*) *insularis mayotta* Evans, 1937
Comoro Malagasy Clouded Flat

Tagiades insularis mayotta Evans, 1937. *A catalogue of the African Hesperiidae indicating the classification and nomenclature adopted in the British Museum*: 28 (212 pp.).

Type locality: Comoro Islands: "Mayotte".
Distribution: Comoro Islands (Mayotte).

****Tagiades* (*Pterygospidea*) *samborana*** Grose-Smith, 1891
Island Clouded Flat

Tagiades samborana Grose-Smith, 1891. *Annals and Magazine of Natural History* (6) **7**: 127 (122-128).

Tagiades samborana samborana. Male. Left – upperside; right – underside.
Bakopaka, Madagascar. April 2019. TCEC et al. ABRI-2019-2214.
Images M.C. Williams ex ABRI Collection.

Tagiades samborana samborana. Female. Left – upperside; right – underside.
Bakopaka, Madagascar. April 2019. TCEC et al. ABRI-2019-2215.
Images M.C. Williams ex ABRI Collection.

Type locality: Madagascar: “North-west coast of Madagascar”.
Distribution: Madagascar, Comoro Islands.
Habitat: Forest (Lees *et al*., 2003).
Early stages: Nothing published.
Larval food: Nothing published.

Tagiades (*Pterygospidea*) *samborana samborana* Grose-Smith, 1891
Island Clouded Flat

Tagiades samborana Grose-Smith, 1891. *Annals and Magazine of Natural History* (6) **7**: 127 (122-128).

Tagiades samborana samborana. Male. Left – upperside; right – underside.
Bakopaka, Madagascar. April 2019. TCEC et al. ABRI-2019-2214.
Images M.C. Williams ex ABRI Collection.

Tagiades samborana samborana. Female. Left – upperside; right – underside.
Bakopaka, Madagascar. April 2019. TCEC et al. ABRI-2019-2215.
Images M.C. Williams ex ABRI Collection.

Type locality: Madagascar: “North-west coast of Madagascar”.
Distribution: Madagascar.

Tagiades (*Pterygospidea*) *samborana rana* Evans, 1937
Comoro Island Clouded Flat

Tagiades samborana rana Evans, 1937. *A catalogue of the African Hesperiidae indicating the classification and nomenclature adopted in the British Museum*: 29 (212 pp.).

Type locality: Comoro Islands.
Distribution: Comoro Islands (Grand Comoro, Anjouan).