

Genus *Pieris* Schrank, 1801 Cabbage Whites

Fauna boica. Durchgedachte Geschichte der in Baiern einheimischen und zahmen Thiere 2 (1): 152, 161 (274 pp.). Ingolstadt.

Type-species: *Papilio brassicae* Linnaeus, by subsequent designation (Latreille, 1810. *Considerations générales sur l'ordre naturelle des animaux composant les classes des Crustacés, des Arachnides et des Insectes* 440, 351 (444 pp.). Paris.) [extralimital].

Names based on extralimital type-species: *Andropodum* Hübner, *Ganoris* Dalman, *Tachyptera* Berge [all junior objective synonyms of *Pieris* Schrank]; *Mancipium* Hübner [1806, rejected as invalid], *Artogeia* Verity.

The genus *Pieris* belongs to the Family Pieridae Swainson, 1820; Subfamily Pierinae Swainson, 1820; Tribe Pierini Swainson, 1820; Subtribe Pierina Swainson, 1820. There is one other genus in the Subtribe Pierina in the Afrotropical Region, namely *Pontia*.

Pieris (**Cabbage Whites**) is an essentially Palaearctic and Nearctic genus of 25 species. There are two Afrotropical species; one of which is introduced, and one of which is endemic to the Afrotropical Region.

Pieris (Pieris) brassicae (Linnaeus, 1758)# Large White



Cabbage White (*Pieris brassicae*) male underside. Image courtesy Steve Woodhall.

Papilio brassicae Linnaeus, 1758. *Systema Naturae* 1, Regnum Animale, 10th edition: 824 pp. Holmiae.

Pieris brassicae (Linnaeus, 1758). Schrank, 1809.

Pieris (Pieris) brassicae (Linnaeus, 1758), **comb. nov.** Grishin, 2038b.



Pieris brassicae. Male (Wingspan 51 mm). Left – upperside; right – underside.
Kalk Bay, Western Cape Province, South Africa. 14 December 2005. J. Dobson.
Images M.C. Williams ex Dobson Collection.



Pieris brassicae. Female (Wingspan 54 mm). Left – upperside; right – underside.
Kalk Bay, Western Cape Province, South Africa. 14 December 2005. J. Dobson.
Images M.C. Williams ex Dobson Collection.

Type locality: ? [Lectotype designated by Honey & Scoble, 2001: 305.]

Distribution: A Palaearctic species probably inadvertently introduced into South Africa on two separate occasions, the first in Durban, KwaZulu-Natal (Swanepoel, 1983b) and the second into Cape Town, Western Cape Province in the early 1990's (Henning, G., 1994a). Currently (2012) found in the Western Cape Province and Northern Cape Province (SABCA virtual museum). Also recorded from Eritrea by Kocak (1997) and from Swakopmund, Namibia by Jonathan Ball (pers. comm., 2012). According to Ball the 'invasion' in Swakopmund occurred in about 2006. This appears to be a different genotype to the one that was established in the Western Cape in the early 1990's. This contention is based on the finding that the pupae are uniformly green, as opposed to the mottled/speckled pupae of the Western Cape population (Ball, pers. comm., 2012).

Specific localities:

KwaZulu-Natal – Durban (D. Whiteley, *vide* Swanepoel, 1983b). Not recorded subsequently from this province.

Western Cape Province – Cape Peninsula and hinterland, as far inland as Du Toits' Kloof and Montagu. Recorded as far east as Plettenberg Bay (R.J. Nuttall, 2011; SABCA) and as far north as Strandfontein, on the west coast (Williams, unpublished 2008).

Northern Cape Province – Hondeklip Bay (A.J. Coetzer, 2008; SABCA).

Namibia – Swakopmund (Ball, pers. comm., 2012).

Habitat: Fynbos in South Africa.

Early stages:

Sarlet, 1949-1957

Doring, 1955

Dennis, 1993

Claassens, 1998 [South Africa].

Khan et al., 2000 [bacterial disease of larva; South Africa].

Numerous publications from the Palaearctic and Nearctic Regions.



Final instar larva of *Pieris brassicae*, Cape Town.
Image courtesy Andrew Morton.

Larval food:

Beetroot [Brinkman, *vide* Claassens, 1996a: 89; South Africa].

Cakile maritima [Young, 2010: 75; Scotland].

Chrysanthemoides monilifera (L.) Norl. (Asteraceae) [Brinkman, *vide* Claassens, 1996a: 89; flowers of] (Met. 7(2): 89).

Lobularia maritima (L.) Desv. (Brassicaceae) [Claassens, 1995b: 86; Cape Town, Western Cape; as *L. maritima*].

Rapistrum rugosum (L.) All. (Brassicaceae) [Claassens, 1995b: 86; Cape Town, Western Cape].

Rorippa nudiuscula (E.Mey. ex Sond.) Thell. (Brassicaceae) [Kroon, 1999: 12].

Tropaeolum majus L. (exotic = nasturtium) (Tropaeolaceae) [Claassens, 1995b: 86; Cape Town, Western Cape]. Note: Kielland (1990: 54) found larvae of *brassicae* on this plant in Norway].

Relevant literature:

Eitschberger, 2008 [Ultrastructural morphology].

Fatouros *et al.*, 2008 [male derived anti-aphrodisiac inducing plant defense].

Sudersana & Singh, 2006 [Hymenopteran parasites].

Smallegange *et al.*, 2006 [Associative learning in feeding behaviours].

Khan *et al.*, 2000 [Bacterial infection; South Africa].

Steele, 1998 [Notes; South Africa].

Claassens, 1998 [new parasitoid and host plant].

Kocak, 1997 [Occurrence in Eritrea].

Claassens, 1996a [notes; Western Cape Province].

Grey, 1995 [Notes; South Africa].

Gardiner, 1995 [Recorded from South Africa].

Claassens, 1995b [notes; Western Cape Province].

Henning, G 1994a [Distribution; South Africa].

Feltwell & Vane-Wright, 1982 [Classification].

***Pieris (Pieris) brassicoides* Guérin-Méneville, 1849**

Mountain Cabbage White

Pieris brassicoides Guérin-Méneville, 1849. *In*: Lefebvre, T., *Voyage en Abyssinie* (4) **6** (Zoologie): 365 (364-386).

Pieris (Pieris) brassicoides Guérin-Méneville, 1849, **comb. nov.** Grishin, 2023b.



Pieris brassicoides brassicoides. Male. Left – upperside; right – underside.
Menegesha Mountain, Ethiopia. November 1993. SCC. ABRI-2019-2912.
Images M. Williams ex ABRI Collection.



Pieris brassicoides brassicoides. Female. Left – upperside; right – underside.
Menegesha Forest, Ethiopia. December 1983. SCC. ABRI-2019-2913.
Images M. Williams ex ABRI Collection.

Type locality: [Ethiopia]: “Abyssinie”.

Distribution: Ethiopia, Tanzania.

Habitat: A montane species, occurring at altitudes above 2 000 m in Tanzania (Kielland, 1990d). It may be common in Addis Ababa and its surroundings (Larsen, 1986).

Habits: Its behaviour is very much like that of the European *Pieris brassicae*. Both sexes are fond of orange lantana flowers (Larsen, 1986).

Early stages: The species was found ovipositing in clusters on the underside of the leaves of *Brassica napus* in Addis Ababa, young larvae feeding gregariously on fresh leaves (Larsen, 1986).

Larval food:

Brassica napus L. (Brassicaceae) [Larsen, 1986; Larsen, 1993d: 186-187; Addis Ababa, Ethiopia; eggs laid in clusters].

Tropaeolum majus L. (Brassicaceae) (exotic = nasturtium) [Females noted flying around these plants in a garden on Mount Meru (Tanzania) by Dr. Rydon, *vide* Kielland, 1990d: 54].

Relevant literature:

Eitschberger, 2008 [Ultrastructural morphology].

***Pieris (Pieris) brassicoides brassicoides* Guérin-Méneville, 1849**
Mountain Cabbage White

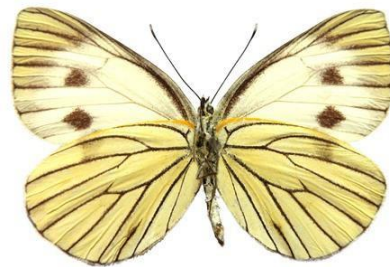
Pieris brassicoides Guérin-Méneville, 1849. *In*: Lefebvre, T., *Voyage en Abyssinie* (4) **6** (Zoologie): 365 (364-386).

Pieris brassicoides brassicoides Guérin-Méneville, 1849.

Pieris (Pieris) brassicoides brassicoides Guérin-Méneville, 1849, **comb. nov.** Grishin, 2023b.



Pieris brassicoides brassicoides. Male. Left – upperside; right – underside.
Menegsha Mountain, Ethiopia. November 1993. SCC. ABRI-2019-2912.
Images M. Williams ex ABRI Collection.



Pieris brassicoides brassicoides. Female. Left – upperside; right – underside.
Menegsha Forest, Ethiopia. December 1983. SCC. ABRI-2019-2913.
Images M. Williams ex ABRI Collection.

Type locality: [Ethiopia]: “Abyssinie”.

Distribution: Ethiopia (highlands above 2 000 m).

Specific localities:

Ethiopia – Tamanjayage (Carpenter, 1935); Ian-fidi (Storace, 1956); Gojam (Rougeot, 1980); Choke (Rougeot, 1980); Addis Ababa (Larsen, 1986).

hodsoni Carpenter, 1935 (as f. of *Pieris brassicoides brassicoides*). *Transactions of the Royal Entomological Society of London* **83**: 343 (313-447). Ethiopia: “S.W. Abyssinia, Shoa Gimira Province, Tamanjayage”.

ragazzii Storace, 1956 (as f. of *Pieris brassicoides*). *Annali del Museo Civico di Storia Naturale (di Genova) Giacomo Doria* **68**: 336 (335-350). Ethiopia: “Ian-fidi”.

bogalei Rougeot, 1980 (as ssp. of *Pieris brassicoides*). *Sinet* **3**: 153 (153-154). Ethiopia: “Gojam, Choke”.

Pieris brassicoides marghanita Hemming, 1941 Meru Mountain Cabbage White

Pieris brassicoides meridionalis Joicey & Talbot, 1922. Invalid name.

Pieris brassicoides marghanita Hemming, 1941. *Proceedings of the Royal Entomological Society of London (B)* **10**: 208 (207-208). Replacement name.

Type locality: [Tanzania]: “Highlands of the Great Craters, Arusha District, Tanganyika Territory, 7500-8800 feet”.

Distribution: Tanzania (north).

Specific localities:

Tanzania – Mount Meru (Kielland, 1990d); Oldeani-Ngorongoro Highlands (Kielland, 1990d).

meridionalis Joicey & Talbot, 1922 (as ssp. of *Pieris brassicoides*). *Bulletin of the Hill Museum, Witley* **1**: 339 (339-342). Tanzania: "Highlands of the Great Craters, Arusha District, Tanganyika Territory, 7500-8800 feet". [Invalid; junior primary homonym of *Pieris napi* var. *meridionalis* Heyn (1895) [Pieridae].]

