

Genus *Catacroptera* Karsch, 1894 Pirate

Berliner Entomologische Zeitschrift **39**: 2 (1-16).

Type-species: *Papilio cloanthe* Stoll, by original designation.

The genus *Catacroptera* belongs to the Family Nymphalidae Rafinesque, 1815; Subfamily Nymphalinae Rafinesque, 1815; Tribe Kallimini Doherty, 1886. The other genus in the Tribe Kallimini in the Afrotropical Region is *Mallika*.

Catacroptera (**Pirate**) is an Afrotropical genus containing a single species. Perhaps surprisingly, molecular studies show that the genus is closest to the Oriental *Kallima* Doubleday, 1850 (Wahlberg, 2005a).

**Catacroptera cloanthe* (Stoll, [1781])# Pirate



Pirate (*Catacroptera cloanthe*). Male upperside and underside.
Images courtesy Peter Webb.

Papilio cloanthe Stoll, [1781], *in* Stoll, [1780-2]. *Die Uitlandsche Kapellen voorkomende in de drie waerreldeelen Asia, Africa en America* **4** [part]: 93 (29-252). Amsteldam & Utrecht.

Junonia cloantha Cramer. Trimen, 1862c. [Misspelling of species name]

Precis cloantha (Cramer, 1782). Trimen & Bowker, 1887a. [Misspelling of species name]

Catacroptera cloantha Cramer. Swanepoel, 1953a. [Misspelling of species name]

Catacroptera cloanthe (Stoll, 1782). Dickson & Kroon, 1978.

Catacroptera cloanthe (Stoll, 1781). Pringle *et al.*, 1994: 119.



Catacroptera cloanthe cloanthe. Male wet season form (Wingspan 53 mm). Left – upperside; right – underside.
Rustenburg Nature Reserve, North West Province, South Africa. 12 December 1999. M. Williams.
Images M.C. Williams ex Williams Collection.



Catacroptera cloanthe cloanthe. Female wet season form (Wingspan 57 mm). Left – upperside; right – underside.
Mountain View, Gauteng, South Africa. 29 December 2009. M. Williams.
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Rustenburg Nature Reserve, North West Province, South Africa. 7 March 1998. M. Williams.
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Catacroptera cloanthe cloanthe. Female dry season form (Wingspan 60 mm). Left – upperside; right – underside. Lagerspoort, Gauteng, South Africa. 27 January 2008. M. Williams. Images M.C. Williams ex Williams Collection.

Type locality: [South Africa]: “Cap de Bonne Espérance”.

Distribution: Sub-Saharan Africa, including Senegal, Gambia, Guinea-Bissau (Bivar-de-Sousa *et al.*, 2016), Guinea, Burkina Faso, Sierra Leone, Liberia, Ivory Coast, Ghana, Togo, Benin, Nigeria, Cameroon, Democratic Republic of Congo, Eritrea, Uganda, Kenya, Tanzania, Zambia, Angola, Mozambique (Congdon *et al.*, 2010), Zimbabwe, Botswana, South Africa, Swaziland (Duke *et al.*, 1999).

Habitat: Grassland and savanna. Often found in the vicinity of streams, marshes and seeps on hillsides. In Tanzania at altitudes between 300 and 2 200 m (Kielland, 1990d). In Kenya it has been recorded as high as 2 500 m (Larsen, 1991c).

Habits: Usually encountered singly in grassy spots. They are alert and wary and will glide away quickly if disturbed. They settle relatively often, usually on bare patches of ground or on rocks. Males establish territories on grassy hillsides (Pringle *et al.*, 1994). Individuals come readily to fermenting fruit (Owen & Owen, 1973). Larsen (1991) once noted large numbers of freshly-eclosed dry-season specimens mud-puddling.

Flight period: All year but from September to April in cooler areas. The seasonal forms differ slightly, the dry-season form having a dark brown underside (Pringle *et al.*, 1994).

Early stages:

Fountaine, 1911: 56 [as *Precis cloantha*; Dargle, KwaZulu-Natal, South Africa].

Clark, in Van Son, 1979: 45 (Plate 43) [as *Catacroptera cloanthe cloanthe*].

“Egg: Laid singly, concealed in a young shoot, 1 mm in diameter and of the same height, pale watery green when laid, becoming deeper green. There are 13-15 glass-white longitudinal ribs braced by some 48 very faint cross-ribs. The egg stage lasts six to 14 days. The young larva devours the shell after hatching. It is at first brown, with black setae on black patches, and has a black head, but assumes a greenish tinge towards the end of the instar, and white patches appear where future protuberances will develop. It is 2,5 mm long at hatching and grows to 5 mm in three to four days. In the second instar the larva is dull green with black protuberances and a black head; the instar lasts six to seven days, the larva growing to 7,5-8 mm. The third instar is lighter in colour, with brown patches at the base of the protuberances and a brown head; the cephalic processes are short and black; it grows to 14 mm in four to nine days. In the fourth instar there is little change in colour, but the cephalic processes are longer; the larva grows to 19 mm in about five days. The fifth instar differs little from the fourth, except that the head is reddish, and the black cephalic processes are still longer; the larva grows to 30 mm in about seven days. The final instar is very much like the fifth, except for the longer cephalic processes which are capable of independent movement; the larva reaches a length of 43 mm in about 14 days. Pupa: Light green, with some minute black dots and small paired black spines on the dorsum of the first four abdominal segments. It is 26 mm long, and is suspended by cremastral hooks. The pupal period is about 18 days in the summer, but hibernating pupae take a much longer time.”



Catacroptera cloanthe cloanthe final instar. Irene, Gauteng, South Africa.
Image courtesy Peter Webb.



Catacroptera cloanthe cloanthe pupa (lateral and dorsal views). Irene, Gauteng, South Africa.
Images courtesy Peter Webb.

Larval food:

- Asystasia gangetica* (L.) T.Anderson (Acanthaceae) [Vuattoux & Blandin, 1979; Ivory Coast].
Barleria opaca (Vahl) Nees (Acanthaceae) [Vuattoux & Blandin, 1979; Ivory Coast].
Barleria stuhlmanni Lindau (Acanthaceae) [Van Someren, 1974: 318].
Chaetacanthus setiger (Pers.) Lindl. (Acanthaceae) [S. Woodhall, pers comm., April, 2004; Greylingstad, Mpumalanga, South Africa]
Gomphocarpus species (Apocynaceae) [Mrs Barber, *in* Trimen & Bowker, 1887, Vol. 1: 223; locality not specified – probably E. Cape; improbable].
Justicia protracta (Nees) T.Anderson (Acanthaceae) [Fontaine, 1911: 56; as *Justicia pulegioides* C.B. Cl.; Dargle, KwaZulu-Natal, South Africa].
Phaulopsis species (Acanthaceae) [Larsen, 2005a].
Ruellia cordata Thunb. (Acanthaceae) [Van Son, 1979: 46].
Ruellia togoensis (Lindau) Heine (Acanthaceae) [Vuattoux & Blandin, 1979; Ivory Coast].

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Pirate

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Type locality: [South Africa]: “Cap de Bonne Espérance”.

Distribution: Eritrea, Democratic Republic of Congo, Uganda, Kenya, Tanzania, Zambia, Angola, Mozambique, Zimbabwe, Botswana, South Africa (Limpopo Province, Mpumalanga, North West Province, Gauteng, KwaZulu-Natal, Eastern Cape Province, Western Cape Province), Swaziland (Duke *et al.*, 1999).

Specific localities:

Democratic Republic of Congo – Mazanguli (Rothschild, 1918); Ituri Forest (Ducarme, 2018); Semuliki Valley (Ducarme, 2018); Mt Mitumba (Ducarme, 2018); Mt Blue (Ducarme, 2018).

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

Kenya – Kibwezi (Larsen, 1991c).

Tanzania – Widespread (Kielland, 1990d); Katavi National Park (Fitzherbert *et al.*, 2006).

Mozambique – Mt Namuli (Congdon *et al.*, 2010); Mt Mecula [-12.0772 37.6297] (Congdon & Bayliss, 2013); Mt Yao [-12.4432 36.5114] (Congdon & Bayliss, 2013).

Botswana – Maun (M. Oake *vide* Larsen, 1991).

Limpopo Province – Warmbaths (Swanepoel, 1953); Nylstroom (Swanepoel, 1953); Potgietersrus (Swanepoel, 1953); Zoutpansberg (Swanepoel, 1953); Doorndraai Dam Nature Reserve (Warren, 1990); Percy Fyfe Nature Reserve (Warren, 1990); Lekgalameetse Nature Reserve (Williams, Dec. 2006); Highlands Wilderness (Bode & Bode, unpublished checklist); Soetdoring Farm [-24.561 28.233] (A. Mayer, pers comm. 2015); Bateleur Nature Reserve (Williams & Dobson, unpub., 2015).

Mpumalanga – Lydenburg district (Swanepoel, 1953), Barberton (Swanepoel, 1953); Graskop (Swanepoel, 1953); Mariepskop area (Henning, 1994c); Sterkspruit Nature Reserve (Williams); Buffelskloof Nature Reserve (Williams).

North West Province – Utopia Resort (C. Dobson, 2006); Kgaswane Mountain Reserve (Williams; male B illustrated above).

Gauteng – Krugersdorp (Swanepoel, 1953); Pretoria (Swanepoel, 1953); Witwatersrand Botanical Gardens (J. Dobson, unpublished checklist, 2001).

KwaZulu-Natal – Dargle (Fontaine, 1911); Durban (Swanepoel, 1953); Verulam (Swanepoel, 1953); Greytown (Swanepoel, 1953); Pietermaritzburg (Swanepoel, 1953); Estcourt (Swanepoel, 1953); Tembe Nature Reserve (Pringle & Kyle, 2002); Balcomb’s Hill (male A illustrated above).

Eastern Cape Province – Hankey (Swanepoel, 1953); Uitenhage (Swanepoel, 1953); Port Alfred (Swanepoel, 1953); Grahamstown (Swanepoel, 1953); Zuurburg (Swanepoel, 1953); King William’s Town (Swanepoel, 1953); East London (Swanepoel, 1953); Butterworth (Swanepoel, 1953); Bashee River (Swanepoel, 1953); Umtata (Swanepoel, 1953).

Western Cape Province – George (Swanepoel, 1953); Knysna (Swanepoel, 1953); Plettenberg Bay (Swanepoel, 1953); Mossel Bay (Pringle *et al.*, 1994).

Swaziland – Malolotja Nature Reserve (www.sntc.org.sz).

obscurior Staudinger, 1885 *in* Staudinger & Schatz, 1884-8 (as var. of *Precis cloantha* [sic]). *Exotischer Schmetterlinge* **1**: 101 (333 pp.). Bayern. No locality given.

intermedia Rothschild, 1918 (as ssp. of *Catcroptera cloanthe*). *Novitates Zoologicae* **25**: 344 (338-345). [Democratic Republic of Congo]: “Mazanguli, Lualaba Valley”.

***Catacroptera cloanthe ligata* Rothschild & Jordan, 1903**
West African Pirate

Catacroptera cloanthe ligata Rothschild & Jordan, 1903. *Novitates Zoologicae* **10**: 520 (491-542).



Catacroptera cloanthe ligata. Male (Wingspan 49 mm). Left – upperside; right – underside.
Biakpa Mountain Paradise, Ghana. 24 November 2011. J. Dobson.
Images M.C. Williams ex Dobson Collection.

Type locality: Sierra Leone.

Distribution: Senegal (south-east), Gambia, Guinea-Bissau (Bivar-de-Sousa *et al.*, 2016), Guinea, Burkina Faso, Sierra Leone, Liberia, Ivory Coast, Ghana, Togo, Benin (throughout), Nigeria, Cameroon.

Specific localities:

Gambia – Marakissa, Kartong, Gunjur, Sapo, Walikunda (Jon Baker, pers. comm., May 2020).

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

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

Benin – Lokoli (Tchibozo *et al.*, 2008); Houeyogbe Forest (Coache & Rainon, 2016); see Coache *et al.*, 2017.

fuscata Rothschild & Jordan, 1903 (as f. of *Catacroptera cloanthe ligata*). *Novitates Zoologicae* **10**: 520 (491-542). Gambia?: “R. Gambia”.