

CHARAXES SPECIES (NYMPHALIDAE) FROM ENUGU,
ANAMBRA STATE, NIGERIA¹

Charaxes species are rapid fliers and most are impossible to catch on the wing. Males and females can be attracted to fermenting banana, rotting meat or excrement. Over 80 species are known from Africa south of the Sahara. William's (1969, A field guide to the butterflies of Africa, Collins, London, 238 p.) emphasized the *Charaxes*. Boorman (1965, Nigerian butterflies. Part III: Nymphalidae-Section I, Ibadan Univ. Press, Ibadan, 16 p.) covered the Nigerian *Charaxes* and included an atlas of photographs to aid identification. Recently, van Someren (1963-1974, Revisional notes on African *Charaxes* (Lepidoptera: Nymphalidae), Parts 1-9, Bull. Br. Mus. Nat. Hist. (Entomol.) 13: 197-242; 15: 183-235; 18: 47-101, 279-316; 23: 77-166; 25: 199-250; 26: 183-226; 27: 215-264; 29: 415-487, London) dealt in detail with the African *Charaxes* species and subspecies.

Study Area

Nigeria is bordered on the north by Niger, the south by the Gulf of Guinea, the east by Cameroon and the west by Dahomey. Anambra State is in the eastern third of the country and was formerly part of the Eastern Region but more recently included in the East Central State. Enugu (6°27'N-7°30'E) is the capital of Anambra State, 230 m above sea level (ASL), and is skirted on the west by the Udi Escarpment which separates the Niger and Cross River watersheds. Enugu and the surrounding area are in the derived savannah zone, a result of northern Guinea savannah encroachment into heavily cropped areas of savannah woodland and rain forest (Keay, 1953, An outline of Nigerian vegetation, 2nd ed., Government Printers, Lagos, 55 p.). Enugu with its many compounds and gardens, is like other areas of tropical Africa in that the gardens combine both forest and savannah eco-systems (Owen & Chanter, 1972, J. Ent. (A) 46: 135-143).

Annual rainfall in the Enugu area is between 150-200 cm from March to October. Little or no rain occurs between November and February. Rainfall during the study period was 123 cm. Rainy season temperatures range from 23-35°C, while dry season temperatures range from 20-35°C.

A garden in Enugu, part of the compound at 2 Charles Street, Ekulu, G.R.A., was selected as the primary study area. An additional study area was a site 22 km NW of Enugu along the road from Egede to Affa. This area is located at 6°36'N-7°23'E, is 300 m ASL, and includes on either side of the road a stand of cashew trees (*Anacardium occidentale* Linnaeus).

Plants in the Enugu garden were numerous and included the following: mango (*Mangifera indica* L.), guava (*Psidium guava* L.), flame tree (*Delonix regia* (Hooker) Rafinesque), gmelina (*Gmelina arborea* Roxburgh), frangipani (*Plumeria rubra* L.), citrus (*Citrus* sp. L.), neem (*Azadirachta indica* A. Jussieu), cassis (*Cassia siamea* Lamarck), pink cassis (*Cassia nodosa* Roxburgh), black plum (*Vitex doniana* Sweet), Barbados pride (*Poinciana pulcherrima* L.), hibiscus (*Hibiscus* sp. L.), gardenia (*Gardenia florida* L.), arabian jasmine (*Jasminium sambac* Aiton), oleander (*Nerium oleander* L.), corollita (*Antigonon leptopus* Hooker & Arnott), ixora (*Ixora coccinea* L.), yellow allamanda (*Allamanda cathartica* L.), bouganvillea (*Bougainvillea* sp. Commers), and *Phyllanthus muellerianus* (O. Kuntze) Excell.

METHODS AND MATERIALS

A bait trap was constructed on a modified plan of those described by Rydon (1964, J. Lepid. Soc. 18: 51-58). The trap was 55 cm high and supported top and bottom with 30 × 30 cm square plywood supports. Fine mesh netting surrounded the trap except for a space of 5 cm above the bottom support which served as an

entrance to the bait. Fermenting bananas served as bait every day except one when pineapple was placed with the banana. The bait was replaced every 2–3 days. The trap was suspended from the NW corner of the author's garage. The base of the trap was 1.3 m above ground level.

Cuts were made in the trunk of a gmelina (*Gmelina arborea*) to attract other *Charaxes*.

All *Charaxes* collected were caught on bright sunny days. Specimens were identified to species and those in good condition were stored in paper triangles. Sex of the specimens was not determined.

RESULTS

The following species and numbers were trapped using banana as bait. *Charaxes estesipe* (Godart): 3 September 1973, 15 November 1973, 17 November 1973, 23 April 1974; *Charaxes tiridates* (Cramer): 23 December 1973, 28 December 1973; *Charaxes boueti* Feisthamel: 11 December 1973, 9 January 1974, 21 January 1974, 24 April 1974; *Charaxes jasius* Reiche: 16 December 1973, 18 December 1973, 29 December 1973, 9 January 1974, 19 April 1974; *Charaxes viola* Butler: 16 December 1973, 23 December 1973; *Charaxes castor* Cramer: 23 October 1973, 11 November 1973, 18 December 1973; *Charaxes brutus* Cramer: 6 August 1973, 30 September 1973; *Charaxes catachrous* Staudinger: 21 December 1973; *Charaxes achaemenes* Felder: 15 December 1973, 21 December 1973; *Charaxes lucretius* (Cramer): 25 December 1973, 6 January 1974; *Charaxes lactitinctus* Karsch: 24 April 1974.

Only one *Charaxes eupale* (Drury) was collected, on the day when the trap was baited with banana and pineapple. One *C. castor* was caught feeding on the sap from the *G. arborea*, and one *C. lactitinctus* was caught feeding on feces and urine (animal species unknown) on the Egede-Affa road.

DISCUSSION

The collection of *C. eupale* on the banana-pineapple combination is interesting but not significant. Owen & Chanter (1972, *J. Ent. (A)* 46: 135–143) reported numerous *C. eupale* attracted to banana bait in Sierra Leone. Boorman (1965, Nigerian butterflies. Part III: Nymphalidae-Section I, Ibadan Univ. Press, Ibadan, 16 p.) noted that *C. achaemenes* records are few from Nigeria, mainly from savannah areas north of Ibadan. The collection of *C. achaemenes* in Enugu will add to the recorded distribution of the species. *C. lactitinctus* is considered rare by Boorman (*Ibid.*). Nigerian records are mainly from the Enugu area. Collection of this species from a derived savannah and urban garden situation probably indicates a lack of intensive collection in similar areas of Nigeria.

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