

Short communication — Kurze Mitteilung — En bref

Breeding status and range expansion of *Danaus chrysippus* (Linnaeus, 1758) in the Algerian Sahara (Lepidoptera : Nymphalidae Danainae)

B. SAMRAOUI

University of Annaba, 4, rue Hassi-Beïda, Annaba, Algeria

Summary

The breeding status of *Danaus chrysippus* (Linnaeus, 1758) in the Algerian Sahara is confirmed and its larval foodplant, *Calotropis procera*, is reported on. Moreover, the species has apparently increased in numbers and considerably expanded its range over the last decades.

Résumé

La reproduction de *Danaus chrysippus* (Linnaeus, 1758) dans le Sahara algérien est confirmée, la plante-hôte étant *Calotropis procera* et, sur base de données antérieures, l'extension de sa répartition géographique est estimée.

Key words : *Danaus chrysippus*, *Calotropis procera*, Sahara, reproduction, range expansion

The Plain Tiger or African Monarch, *Danaus chrysippus* (Linnaeus, 1758), is a most widespread butterfly occurring in Asia, Australia and the whole of Africa. As is often the case with migratory butterflies, no subspecies have been accepted, but three forms or morphs are recognized : *chrysippus*, *alcippus* and *dorippus*. Studies of the polymorphism of *D. chrysippus* have led to suggestions that the species might have originated in the Far east with subsequent colonisation of Africa. The geographical variation of the polymorphism of the species stems from ecogeographical adaptations of pre-existing morphs (Pierre, 1980).

Previous papers (Samraoui *et al.*, 1992 ; Samraoui, 1993 ; Tennent, 1995) have summed up our knowledge of the presence and of the migrations of the Plain Tiger in North Africa and in particular in the Algerian Sahara. Both forms (*chrysippus* and *alcippus*) are known to occur on

the Canary Islands (Owen & Wiemers, 1992) and mainland North Africa. The Plain Tiger's populations from Fuerteventura were qualified as relicts that are now adapted to the endemic *Caralluma burchardii* (Owen & Wiemers, 1992). The last authors also pointed out the differences between the f. *alcippus* arising from monomorphic populations of West Africa and that existing in the polymorphic population of Uganda. The f. *alcippus* is rare in Algeria but seems more abundant in Morocco (Tennent, pers. comm.). It is probable that the Moroccan f. *alcippus* populations derive from West African populations and this possibility certainly exists (Samraoui, 1993). Sporadic migrations of the f. *alcippus* in North Africa (Tunisia and Algeria) have been reported (Chnéour, 1954) and can be found in the data compiled by Pierre (1973).

In the Central Sahara (Tassili N'Ajjer and Hoggar), the form *chrysippus* is common while the *alcippus* form is very rare but present. In the oasis of Djanet, we have collected larvae and pupae of the Plain Tiger on *Calotropis procera*, thus confirming its breeding status in the Algerian Sahara. It leaves open the question of the foodplant in the northern oases (Touggourt, Laghouat), where *C. procera* is rather rare if not inexistent (Samraoui et al., 1992). Previously overlooked references point to a range expansion of *D. chrysippus* as revealed by the following statement: "*Danaus chrysippus*, l'espèce éthiopienne commune, s'étend au nord jusque dans la région méridionale du bassin de l'oued Mya, mais n'atteint ni Touggourt ni Ghardaïa" (Rothschild, 1922). It is noteworthy that Chnéour (1948) did not record the Plain Tiger in Tunisia nor did the French expedition of 1949 to the Tassili N'Ajjer (Rungs, 1958), so it might safely be assumed that the species has substantially increased in numbers. Following the numerous colonies that managed to gain a foothold in Europe (Bretherton, 1984; Martin & Gurrea, 1988; King, 1991), it is probable that the expansion is slowed down by the availability of suitable larval foodplants. We do not know the reason for this range expansion and it is interesting to point out that several species of insects (Samraoui, in prep.) have also pushed up further their northern limit. We might speculate that, in the event of global warming, *D. chrysippus* might well gain a firm foothold in Europe (Owen, 1991).

References

- CHNÉOUR, A., 1948. Contribution à l'étude des Macrolépidoptères de Tunisie (suite). *Bull. Soc. Hist. Nat. Afr. N.* 39 : 70-96.
- CHNÉOUR, A., 1954. Macrolépidoptères de Tunisie. I, II. Rhopalocera, Grypocera. *Bull. Soc. Sci. nat. Tunis.* 7 : 207-239.

- KING, G., 1954. The Spanish whereabouts of the Monarch and Plain Tiger. *Bull. amat. Ent. Soc.* 50 (374) : 48.
- MARTIN, J. & GURREA, P., 1988. Establishment of a population of *Danaus plexippus* (Linnaeus, 1758) (Lep. : Danaidae) in Southwest Europe. *Entomologist's Rec. J. Var.* 100 : 163-168.
- OWEN, D. F., 1991. Can *Danaus chrysippus* (L.) (Lepidoptera : Danaidae) establish itself in Europe ? *Entomologist's Gaz.* 42 : 37-39.
- OWEN, D. F. & WIEMERS, M. 1992. The butterflies of Fuerteventura. *Entomologist's Gaz.* 43 : 87-92.
- PIERRE, J., 1973. Etude du polymorphisme chez *Danaus chrysippus* L. (Lépidoptère Danaïde) : aires de répartition et catégories infraspécifiques en Afrique. *C.r. Séanc. Acad. Sc. Paris* 276 : 2685-2687.
- PIERRE, J., 1980. Variation géographique du polymorphisme et du mimétisme de *Danaus chrysippus* et d'*Hypolimnas misippus* (Lépidoptères Rhopalocères) en Afrique et en Asie. *C.r. somm. Séanc. Soc. Biogéogr.* 486 (1978) : 179-187.
- ROTHSCHILD, W., 1922. L'Algérie et sa faune ; an address read before the entomological society of London, Annual Meeting 18th. January 1922. *Bull. Soc. Hist. Nat. Afr. N.* 13 : 146-154.
- RUNGS, C. 1958. Lépidoptères du Tassili N'Ajjer. *Inst. Rech. Sahar. Univ. Alger.* 3 : 167-176.
- SAMRAOUI, B., 1993. Migration of the African Monarch *Danaus chrysippus* (L.) and the African Migrant *Catopsilia florella* (Fab.) in Mauretania (Lepidoptera : Danaidae, Pieridae). *Nota lepid.* 16 (1) : 68-70.
- SAMRAOUI, B., BENYACCOUB, S. & MENAI, R., 1992. *Danaus chrysippus* (L.) : Possible breeding status and new sightings (Lepidoptera, Danaïdae). *Nota lepid.* 14 (4) : 348-350.
- TENNENT, J., 1995. *Danaus chrysippus* Linnaeus, 1758 ; a review of records and present status in the Maghreb countries of Morocco, Algeria and Tunisia (Lepidoptera, Danaïnae). *Nota lepid.* 17 (3/4) (1994) : 201-216.

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Nota lepidopterologica](#)

Jahr/Year: 1996

Band/Volume: [19](#)

Autor(en)/Author(s): Samraoui Boudjema

Artikel/Article: [Short communication — Kurze Mitteilung — En bref
Breeding status and range expansion of *Danaus chrysippus* \(Linnaeus,
1758\) in the Algerian Sahara \(Lepidoptera : Nymphalidae Danainae\)
261-263](#)