Chapter 11

Information on some butterfly species encountered around Tierberg research station (Prince Albert/South-Africa)

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11.1 Introduction

Due to the total lack of information about most invertebrate groups in the area, a small study on the presence of butterflies was conducted during the excursion. Within this chapter the species encountered will be listed and their ecology will briefly be described, based on PRINGLE et al. (1994).

11.2 Species encountered

***Danaus chrysippus* (LINNAEUS)** (Danaidae)

This large Danaid species is very common and occurs nearly all over Africa. It flies throughout the year and at almost all altitudes. Larvae and adults are in general distasteful to predators, as they contain alcaloids. Foodplants are species of *Asclepias*, *Ceropegia*, *Stapelia*, and *Huernia*.

In the study region it was commonly found near to or on *Asclepia* spp.. Nearly all stages (eggs, larvae and adults) have been encountered at the same time (compare caterpillar on Picture 37). One individual of the species was used to show the techniques of marking butterflies with waterproof pens. The specimen obviously left the patch directly after marking with a rather direct flight towards the West, but 4 days later was found again in the place of marking. As Danaids are regarded as strong fliers, one would never have expected such an effect. Maybe it was just a very unlikely event which we happened to witness. However, it could be possible that the species shows some kind of behaviour (e.g. patrolling) which results in some kind of fixed home range. It would be quite interesting to have closer look at the species in terms of dispersal and population structure, although normally such species are believed to be hard to study (which might not be true?).

Picture 37:
The caterpillar of *Danaus chrysippus* on *Asclepia* sp.

***Iolaus bowkeri* (TRIMEN)** (Lycaenidae)

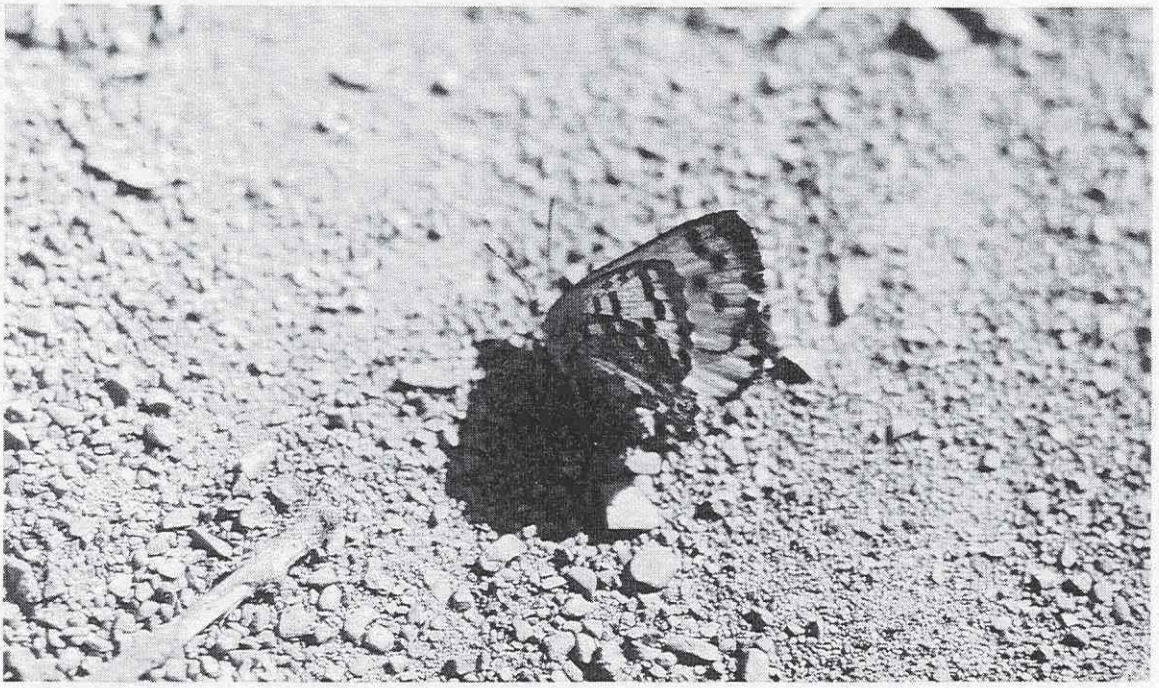
This Thecline butterfly has been encountered as a singleton in a wash of "Argentina" farm (area outside the fences around Tierberg research centre, where also parts of the study of ECCARD & WALTER, see chapter 10, have been conducted). It is to be found nearly everywhere in South Africa where bushveld vegetation grows. The adults often settle on thorny branches. Foodplants of the larvae are *Loranthus elegans* and *L. oleaefolius* (=*Moquiniella rubra* and *Tapinanthus oleifolius*), *Viscum rotundifolium* (Mistletoe), and *Ximenia caffra*.

***Iolaus mimosae* TRIMEN** (Lycaenidae)

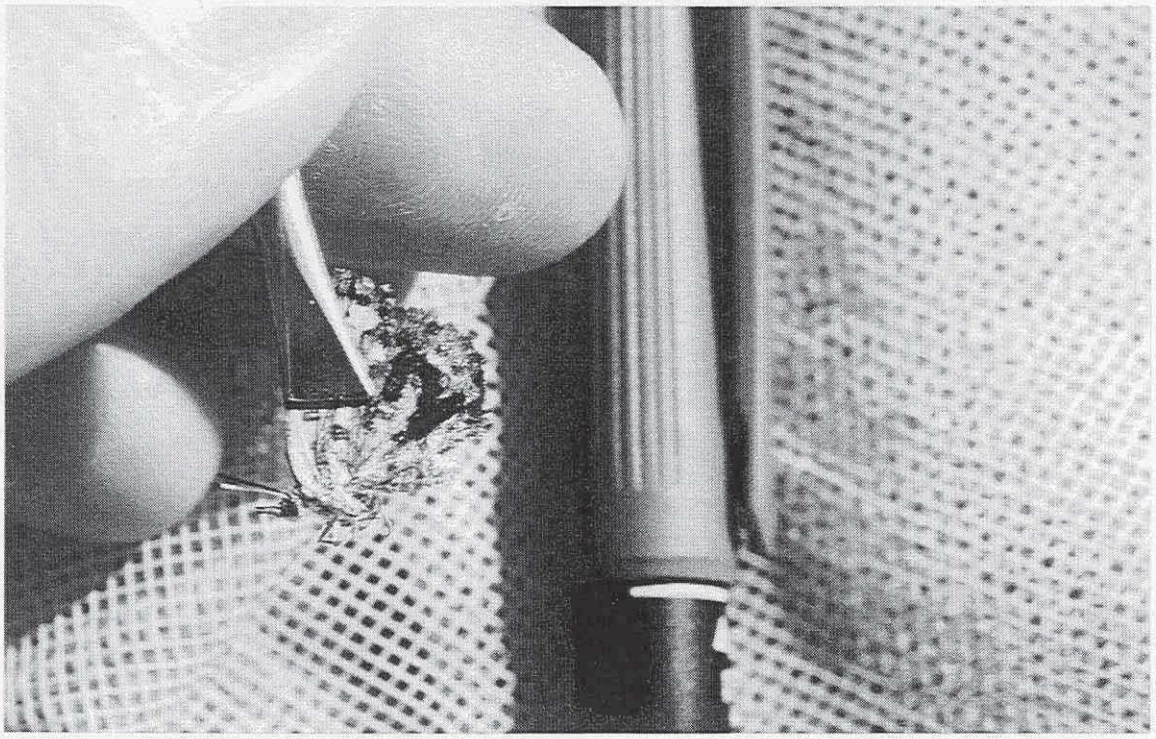
Also this species was found only once in a wash of "Tierberg" research station (see chapter xx for details). It is fond of flying around Acacias and is known from many parts of the Karoo. The species is inclined to sit on twigs well in the middle of a 'thorn tree', which makes the use of a net quite difficult. Larval foodplants are *Loranthus* spp. on Acacias (including *L. elegans* = *Moquiniella rubra*). The animals are easy to breed, as the foodplant lasts well in a closed jar.

Chrysoritis chrysantas **(TRIMEN)** (Lycaenidae)

This species has been found in many individuals on "Tierberg" as well as "Argentina" area (compare Pictures 38 and 39). It is widespread across the eastern and central Karoo to Namaqualand and even farther north. According to PRINGLE et al. (1994) it is seldom seen in large colonies, which seems to contradict the impressions from our field sites. The species is usually seen feeding on Mesembryanthemums on the flats or gentle slopes. It must be approached carefully, as it easily flushes and does not always return to the same flowers.



Picture 38: A resting specimen of *Chrysoritis chrysantas* at Tierberg (March 1998)



Picture 39: For population biological studies butterflies can be individually marked, like shown here with *Chrysoritis chrysantas* ("Tierberg", March 1998)

***Syntacurus cf. pirithous* (LINNAEUS)** (Lycaenidae)

Several specimens have been sighted in different washes of the area. The species is regarded as common in almost every part of South Africa, and it extends northwards through Africa into parts of Europe, and even Asia. It occurs along the edge of thick bush, in the open bushveld, and other types of country. Foodplants are *Plumbago capensis* (= *P. auriculata*), *Indigofera*, *Rynchosia*, *Vigna*, *Burkea*, *Mundulea*, *Melilotus*, and *Crataegus*.

***Harpendyreus tsomo* (TRIMEN) / *H. noquas* (TRIMEN)** (Lycaenidae)

One specimen of a species of the Genus ***Harpendyreus*** has been found in a wash near Tierberg (outside the fenced area). As the species could not be identified, no further details are given here (larval foodplants of *H. tsomo*: *Mentha* sp., and of *H. noquasa*: *Alchemilla capensis*).

***Azanus jesous* (GUÉRIN-MENEVILLE)** (Lycaenidae)

This species has been very abundant in all the washes of the area. It is known to be widely distributed all over South-Africa, „where any wild 'thorn tree' grows. ... It flutters endlessly round the Acacia trees when they are in flower, and is easily caught." (PRINGLE et al. 1994). Foodplants are flowers, buds, and leaves of *Acacia* spp., as well as flowers and buds of *Entada spicata*. Detailed data on the life history are compiled in CLARK & DICKSON (1971).

***Azanus moriqua* (WALLENGREN)** (Lycaenidae)

This species has occasionally been sighted in the washes of the area. It is known to be nearly as widely distributed as the latter species mentioned and has a very similar ecology and behaviour. Foodplants are flowers and buds of *Acacia* spp., including *Acacia karroo*.

***Colias electo* (LINNAEUS)** (Pieridae)

This species according to PRINGLE et al. (1994) is one of the commonest and most widespread butterflies of Southern Africa. It is one of the few butterflies that feeds on some of man's crops (e.g. Lucerne and Clover). During our excursion it has been encountered in the centre of Prince Albert (visiting garden flowers) and along the Swaartberg Pass. Foodplants are *Vicia sativa* (Lucerne), *Trifolium* (Clover), *Robinia pseudoacacia* and other plants.

***Pieris helice* (LINNAEUS)** (Pieridae)

A single specimen has been seen on the "Argentina" farm (see at *Iolaus bowkeri* for information). The species is also regarded as being widely distributed and commen in South Africa. „It seems to prefer the open areas, flutters about old fields in the 'thorn' country and is seen all through the Karroo" (PRINGLE et al. 1994). Foodplants are *Heliophila* spp., *Alyssum* spp. *Lepidum capenses*, *Sisymbrium* spp., and *Reseda odorata*.

Literature

CLARK, G.C. & C.G.C. DICKSON (1971): Life histories of South African Lycaenid butterflies. Purnell, Cape Town.

PRINGLE, E.L.L., G.A. HENNING & J.B. BALL (1994, eds.): Pennington's Butterflies of Southern Africa (2nd edition, revised by G.A. HENNING, E.L.L. PRINGLE & J.B. BALL). - Struik, Winchester.

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Rangeland Management in the Southern Karoo (South Africa):

Conflicts of Landuse and Environmental Conservation

(report of a scientific students' excursion)

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