



Observations on the caddisfly fauna (Insecta, Trichoptera) of the lower Orange and Fish Rivers in southern Africa with the description of a new species

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Abstract

The Trichoptera of the lower Orange River were collected at irregular intervals from 1993 to 2008. A total of 15 species are listed, including a new species which is described as *Catoxyethira gariopensis* n. sp. (Hydroptilidae). The composition of the taxocenosis and the dominant species at different sample sites are briefly documented. The survey has revealed the occurrence of a poor fauna, which consists mainly of widespread species. Records from the literature and the present data are summarised. Twenty-six species are now known to occur in the Orange River. Droughts and flash-floods are major events in this watershed. These are unpredictable and contribute to the unstable conditions of the river ecosystem and do not allow the development of a more diverse fauna.

Key words: Trichoptera, faunistics, *Catoxyethira gariopensis* spec. nov. (Hydroptilidae), taxonomy, Orange River, Fish River, flash-floods, drought periods, Namibia, South Africa

Introduction

During recent years the author conducted fieldwork in Namibia and South Africa as a member of the German-Namibian-South African BIOTA-Project. The project was launched in 2001 by the German Government. The aim was the investigation of the relationships between different land use systems and biodiversity. The author joined the project as a specialist of Micro- Lepidoptera and, therefore, research activities concentrated on Lepidoptera groups. At the beginning of the project, a large number of so-called bio-observatories were established along a transect from the Cape Peninsula in the south to the Okavango River in the north. Some of these terrestrial observatories were visited regularly.

Since that time the author used to drive at irregular intervals from Cape Town to Windhoek and back. The valley of the Orange River, which is the border between South Africa and Namibia, is about half the distance between these 2 cities and was often used as a stop-over site. Sometimes the night was spent along the lower course of the Fish River, in Namibia, which enters the Orange River in the area. During each visit, caddisflies were sampled at various sites along these rivers. The present article gives a synopsis of the hitherto encountered species, with only the adults considered.

The Orange River

The Orange River is the largest river in South Africa. It is 2173 km long and drains more than 1/3rd of South Africa (Fig. 1 a). The lower Orange River valley cuts through the core area of the Gariep Centre of Plant endemism, and the river enters the Atlantic Ocean in this region, forming an estuary.