



A revision of the freshwater crabs of Mt Kenya and the Aberdare Mountains, Kenya, East Africa (Brachyura: Potamoidea: Potamonautidae).

NEIL CUMBERLIDGE

Department of Biology, Northern Michigan University, Marquette, Michigan 49855-5301, USA. E-mail: ncumberl@nmu.edu

Abstract

The taxonomy of the freshwater crabs of Mt Kenya and the Aberdare Mountains in central Kenya, East Africa is revised based on a large collection of previously unreported material. Three species belonging to the genus *Potamonautes* MacLeay, 1838 (Potamonautidae Bott, 1970) are recognized from the region and redescribed. *Potamonautes jeanneli* (Bouvier, 1921) and *P. odhneri* (Colosi, 1924) are both resurrected from synonymy and *P. alluaudi* (Bouvier, 1921) is recognized as a valid species rather than as a subspecies of *P. suprasulcatus* (Hilgendorf, 1898). All three species are endemic to the Central Province, Kenya.

Key words: Crustacea, Brachyura, Potamoidea, Potamonautidae, *Potamonautes*, freshwater crab, taxonomy, Mt Kenya, Aberdare Mountains, Kenya, East Africa

Introduction

European and American expeditions to Mt Kenya and the Aberdare Mountains in Kenya in East Africa in the early 20th Century led to the description of three species of freshwater crabs from this region (Bouvier 1921, Colosi 1924). These included two species from Mt Kenya itself, *Potamon* (*Geothelphusa*) *jeanneli* Bouvier, 1921, and *Potamon* (*Potamonautes*) *odhneri* Colosi, 1924, and *Potamon* (*Potamonautes*) *alluaudi* Bouvier, 1921, from Nairobi Forest south of Mt Kenya. These three species were also recognized by Balss (1929) and Chace (1942), but the major taxonomic revision of Bott (1955) did not consider any of them to be valid. For example, Bott (1955) treated *P. (G.) alluaudi* as *Potamonautes (Arcopotamonautes) suprasulcatus alluaudi*, a subspecies of *Potamonautes suprasulcatus* (Hilgendorf, 1898) (Reed & Cumberlidge 2006); *P. (G.) jeanneli* as a junior synonym of *Potamonautes (Platypotamonautes) neumanni* (Hilgendorf, 1898); and *P. (P.) odhneri* as a junior synonym of *Potamonautes (Platypotamonautes) pilosus* (Hilgendorf, 1898).

Williams (1968) did not entirely accept Bott's (1955) opinions and recognized two species of freshwater crabs from Mt Kenya and the Aberdare Mountains (*P. alluaudi* and *P. odhneri*), and Williams (1991) recognized a third species, *P. jeanneli*, from high altitude localities east of the Rift Valley in the region that includes the Aberdare Mountains and Mt Kenya. The result of the above series of shifting taxonomic opinions has been that freshwater crabs collected from this area of Kenya have proved difficult to identify and because the only available keys are still those of Bott (1955).

The present work has been prompted by the need to identify material from the central Kenyan highlands that was collected by T. R. Williams and his colleagues in the 1960s during a survey of highland areas with the potential to be a focus of onchocerciasis (river blindness), a parasitic disease of humans caused by *Onchocerca volvulus*, a tissue nematode. Freshwater crabs are obligate phoretic hosts of the aquatic larvae of biting blackflies (*Simulium* sp.) that are the main vectors of this disease in Africa (Barnley & Prentice 1958;