A vegetation survey of the Tsitsikamma Coastal National Park

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Sampling plots (5 m × 10 m in fynbos, 10 m × 10 m in forest) were analysed in the littoral, coastal escarpment, and north and south facing inland escarpment zones of 17 transect sites along the length of the Tsitsikamma Coastal National Park. Cover-abundance values were estimated for each species in the sampling plots. A detrended correspondence analysis (using CANOCO) and a two way indicator species analysis (TWINSPAN) were carried out on these data to determine the communities sampled. The vegetation of the park was classified into an Afrotumante Forest, a Littoral Herbland and two Mesic Mountain Fynbos Communities. The distribution and extent of these communities were determined and their conservation discussed.

Key words: Tsitsikamma Coastal National Park, vegetation survey, Mesic Mountain Fynbos, Afrotumante Forest.

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Introduction

The more common trees and flowering plants of the Tsitsikamma Coastal National Park (TCNP) have been described by Courtney-Latimer, Smith, Bokelmann & Batten (1967) and Rycroft (1980), but except for work by Pretorius, Bond, Odendaal, Geldenhuys & Breytenbach (1980), the detailed composition of the various plant communities within the park has been ignored. The aim of this project was to identify, describe and map these communities. Such work would provide basic data for management prescriptions, as well as giving an indication of the potential importance of the TCNP in the conservation of certain vegetation types. The work complements studies done in other nature reserves of the southern and eastern Cape (Grobler & Marais 1967; Taylor 1970a, 1970b; Penzhorn & Olivier 1974; Van der Merwe, 1976, 1977).

The TCNP is situated in the southern Cape (Fig. 1). In the De Vasselot area (Fig. 2a), the park extends 3 to 4 km inland along the escarpments