



## CHAPTER 1

### INTRODUCTION

The primary objective when proclaiming a National Park is to conserve parts of pristine natural ecosystems for future generations (Gertenbach 1987). Marakele National Park (MNP) is one of 17 National Parks in South Africa. It covers an area of 290,51 km<sup>2</sup> in the southwestern part of the Northern Province and is managed as a National Park since 1988, but was officially proclaimed a National Park on 11 February 1994.

MNP is situated mainly in the Waterberg Moist Mountain Bushveld (Low & Rebelo 1996) in the Savanna Biome (Rutherford & Westfall 1986) that is synonym to Acocks's (1988) Sour Bushveld, which is listed by Edwards (1972) as one of 52 of South African Veld Types extremely lacking in conservation. The Sour Bushveld covers 18 306 km<sup>2</sup>, occurring in mountainous areas in the previous Transvaal Province (Coetzee 1975; Coetzee et al. 1981). Previous plant ecological studies in the Sour Bushveld (Acocks 1988) include those by Van Vuuren & Van der Schijff (1970); Coetzee (1975); Coetzee et al. (1981), Westfall (1981) and Westfall et al. 1985. Differences in methodology preclude extrapolation of these data to the Waterberg area, where the largest part of this veld type occurs (Westfall 1981).

The vegetation of the study area includes Acocks's (1988) Sour Bushveld (Veld Type 20), Mixed Bushveld (Veld Type 18), Sourish Mixed Bushveld (Veld Type 19), Sour Bushveld (Veld Type 20) and North-Eastern Mountain Sourveld (Veld Type 8) and cognizance of these veld types will have to be taken in any study of the Waterberg vegetation. Plant ecological work in these vegetation types include those of Van der Meulen (1979) who described the vegetation of the bushveld south of the Waterberg, Theron (1973) who described the vegetation of the Loskopdam Nature Reserve, Westfall (1981) who described the vegetation of the Sour Bushveld and remnants of the North-Eastern Mountain Sourveld, Van Rooyen (1983) who described the vegetation of Roodeplaat Dam Nature Reserve, Brown (1997) who described the vegetation of Borakalalo Game Reserve and Coetzee et al. 1994 who described the vegetation in the pretoria area..

In order to manage and conserve any National Park, a profound knowledge of the ecology is a prerequisite, and to achieve that prerequisite, an inventory of the biotic and the abiotic components of that National Park must be undertaken. The "natural systems" as it occurs today cannot be viewed and conserved as "natural" any more, because of the influence of man. Thus, management recommodations can only be made on the basis of interpreted



ecological knowledge to restore the balance of the original natural system. The influence of management recommendations on the system must also be regularly monitored to determine if the aims that were set were achieved satisfactorily. Efficient monitoring systems also depend upon an inventory of the biotic and abiotic components (Gertenbach 1987).

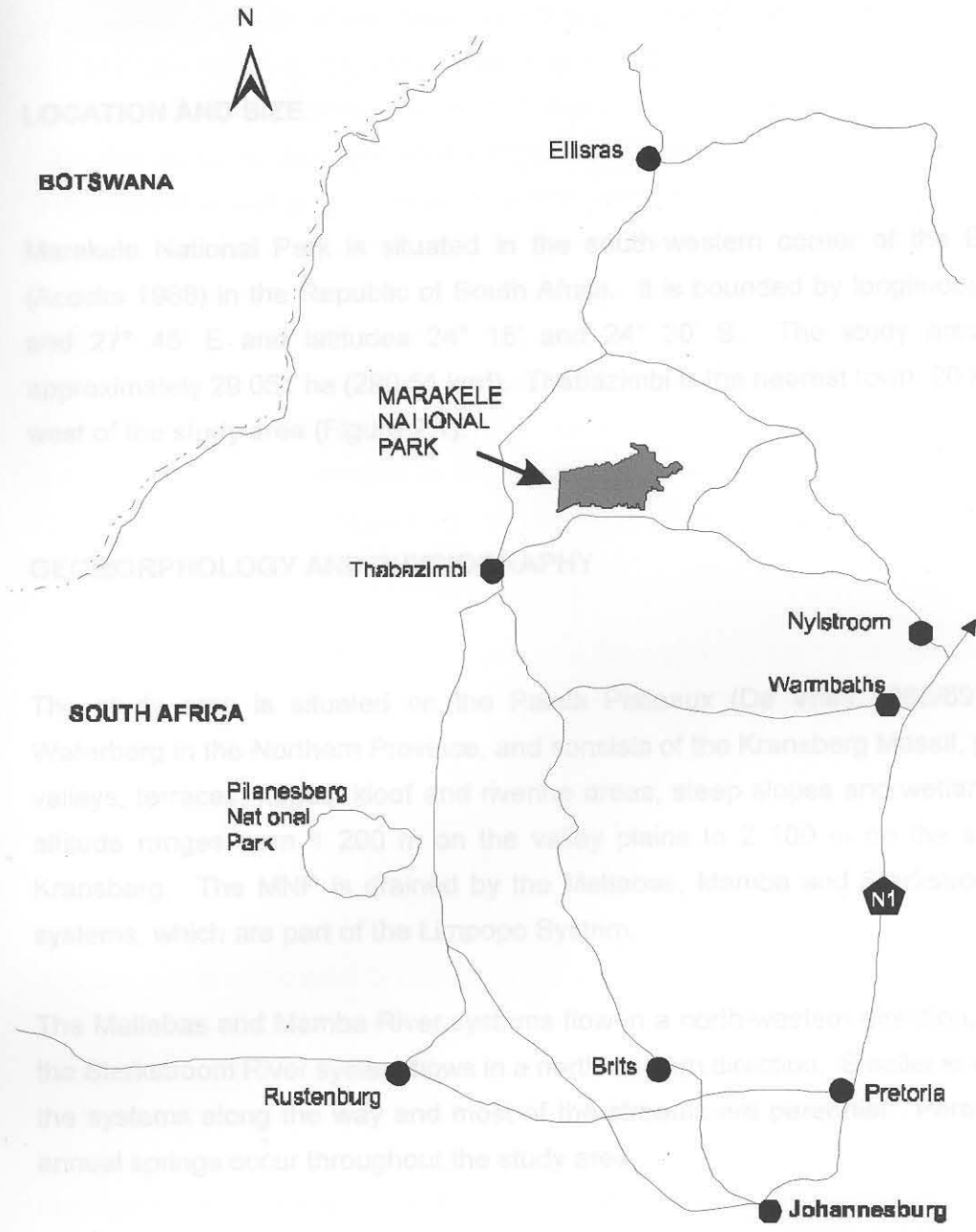
The primary aim of this study was to classify and describe the vegetation of the Marakele National Park in the Waterberg of the Northern Province. The purpose of the classification can be described as to form a basis for inventory and mapping or as a basis of management. The secondary aim of this study is to obtain a basis to establish procedural guidelines for a management plan for MNP through a range condition assessment, rainfall data and annual game counts.



Figure 2.1 A map indicating the location of the study area in relation to towns

CHAPTER 2

STUDY AREA



Scale 1: 3 000 000

Figure 2.1 A map indicating the location of the study area in relation to towns.