

TIERBERG KAROO RESEARCH CENTRE



The landscape



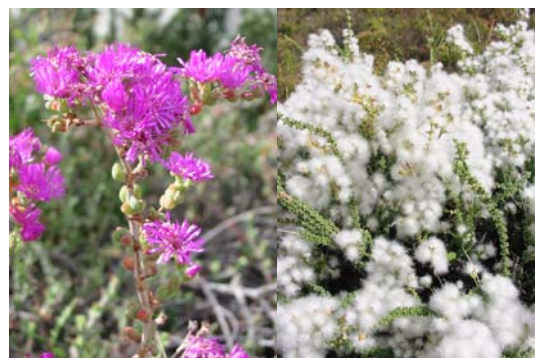
Huts for equipment storage & camping



School group visits



Amazing reptiles and invertebrates



Aizoaceae and Asteraceae

BACKGROUND

Tierberg Karoo Research Centre (TKRC) is a Long Term Ecological Research field facility available for use by organisations involved in research and tertiary education in the natural sciences. The field site comprises 100 ha of natural Karoo shrubland situated on the privately owned ranch Tierberg. The field site has been fenced to exclude domestic livestock since July 1987 when it was the focus of the NF (then FRD)-funded Karoo Biome Project. Weather data (rainfall, temperature, wind speed) were collected by data logger from 1988-1993 and from 2006 until present. Studies of plant, bird and small mammal populations at this site have contributed substantially to present conceptual understanding of ecological process in the Karoo (see publication list). The plant, bird and mammal checklists and soil data for the site, provide valuable baselines for research. TKRC is regularly used for school and university field excursions and frequently visited by foreign ecologists with an interest in arid ecosystems.

LOCALITY and CLIMATE

TKRC is located 33°09'S, 22°16'E and 780 m above sea level in the Succulent/Nama Karoo transition zone just inland of the Swartberg Mountains in the Sandrivier Valley 28 km east of Prince Albert. The village of Prince Albert is 100 km SW of Beaufort West, 120 km north from George, 400 km east of Cape Town and 400 km west of Port Elizabeth. This region is in the Cape Fold belt so that a number of geological strata are exposed, including Witteberg Quartzite to the south of the site and Dwyka tillite and Ecca sedimentary rock to the north of the site. The climate is arid (100 year mean 176 mm, range 50-400 mm/yr) and rain is brought by cyclonic systems in the winter and is convectional in the summer. Rain can occur at any time of the year, with a higher probability in spring and autumn.

ACCOMMODATION and OTHER FACILITIES

Two wooden huts, originally erected for use by students participating in the FRD-funded Karoo Biome Project, provide rudimentary accommodation on the TKRC field site. The huts contain two beds with bedding. There are cooking utensils, chairs and tables in the huts as well as paraffin lamps and some field equipment. Water for drinking and washing is usually available from a 500 litre rainwater tank adjacent to the huts, and there is a pit latrine. These basic facilities are useful for dawn, dusk or nocturnal research projects and provide field workers with welcome relief from heat, cold and wind. Parking is limited to six vehicles and vehicles may be turned only in the TKRC enclosure and not in the veld (natural vegetation). The accommodation is kept locked when not in use. Security on Tierberg ranch is good as the sheep ranch manager and foreman patrol the area regularly.

TENURE, OWNERSHIP HISTORY and SITE MANAGEMENT

The Tierberg ranch was owned by the Murray family during the latter part of the 1900s. In 1990 it was bought by Harold Wright and managed by his son-in-law Piet van Wyk until 1997, when it was sold to Johan Kitshoff of Gauteng. The ranch changed hands again in 2009 and is presently owned by Daan Derksen of Stellenbosch. TKRC field site was leased, first by the CSIR and later by the University of Cape Town, from the owners of Tierberg ranch from 1987 to 1997. Since 1997; the owners of Tierberg ranch, including Johan Kitshoff and Daan Derksen, have agreed to the rent-free use of the study site enclosure. This is on the understanding that any infringement of privacy or interference with farming operations will result in termination of the agreement. For this reason, the study site gate is kept locked at all times. Since its inception in 1987, TKRC has been managed by Dr Richard Dean and Dr Sue Milton, on behalf of the NRF and participating universities. Although now retired from university posts and running a small business (Renu-Karoo Veld Restoration cc), they continue to maintain the facilities, collect weather data, and to co-ordinate research and educational activities at TKRC on a voluntary basis.

ARCHIVED DATA

Much of the data collected at the TKRC is available from the South African Environmental Observatory (SAEON) website <http://www.saeon.ac.za/>

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Publications from research at the Tierberg Karoo Research Centre

(updated 2010.09.05)

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