

5. Indian Ocean Coastal Belt

5.1 Seashore Vegetation

AZd 3 Cape Seashore Vegetation

This vegetation is found in beaches, coastal dunes, and coastal cliffs of open grassy, herbaceous and to some extent also dwarf –shrubby (sometimes succulent) vegetation. This vegetation represents warm-temperate versus subtropical coastal vegetation units. Almost half of this vegetation unit is statutorily conserved in the Western and Eastern Cape Provinces. The Cape Seashore Vegetation is also represented in the AENP.

5.2 Eastern Strandveld

5.2.1 AZs 1 Algoa Dune Strandveld

About 4 % of this vegetation is statutorily conserved in the Eastern Cape, including the AENP. The distribution of this vegetation is the narrow coastal strip along the Indian Ocean seaboard from the mouth of the Tsitsikamma River to the Sundays River mouth. The vegetation consists of tall dense thickets on dunes mainly outside the influence of salt spray, dominated by stunted trees, shrubs, abundant lianas and sparse herbaceous and grassy undergrowth (Mucina & Rutherford 2006).

STEP (Vlok & Euston-Brown 2002): Algoa Dune Thicket

The Algoa Dune Thicket occurs from about the mouth of the Tsitsikamma River eastwards, up to the Sundays River mouth. Its structure and dynamics are similar to those of the Gouritz Dune Thicket, but it differs in having a richer assemblage of species woody present in the Thicket vegetation. Some of these are localized endemics (e.g. *Gymnosporia elliptica*) or near-endemics (e.g. *Aloe africana*, *Rapanea gilliana*, etc.) that only also occur in the Albany Dune Thicket. The Algoa Dune Thicket mosaic units also contain many highly localized endemics, several of which are critically endangered or already extinct e.g. *Aspalathus cliffortiifolia*, *Lampranthus algoensis*, *Pentaschistis longipes*, *Selago polycephala*, *Selago zeyheri*, etc., due to urban development and invasion by alien vegetation in this region.

5.2.2 AZs 2 Albany Dune Strandveld

This vegetation is characterised by very dense shrubby thicket composed of 2-4 m high, mostly sclerophyllous shrubs accompanied by several woody and herbaceous vines, and with a sparse grassy understorey. This unit also includes low, dense thickets found on seaward slopes of the coastal dune cordons and rocky headlands (coastal cliffs). The occurrence of bulbous geophytes and succulent herbs is an important feature of this vegetation unit. Some 25 % statutorily conserved in the Eastern Cape, including the AENP.

STEP (Vlok & Euston-Brown 2002): Albany Dune Thicket

The Albany Dune Thicket occurs in a narrow coastal strip located between the Sundays River and the Fish River Mouth. Most of the woody species present in the Algoa Dune Thicket vegetation also occur in the Albany Dune Thicket, but here the species richness is enriched by several Pondoland-Tongoland elements, e.g. *Pavetta revoluta*, *Phoenix reclinata*, etc., taxa that reach their southernmost distribution here. The Fynbos elements are less prominent and not as rich in species as they are in the dune vegetation of the more western Dune Thicket units. Many of the Fynbos species reach their northernmost distribution here, e.g. *Helichrysum versicolor*, *Ischyrolepis eleocharis*. This zone is thus the meeting ground of plant taxa typical of both the east and southwest coast. This unit is easily recognized by an abundance of *Brachylaena discolor* and the occasional presence of *Encephalartos altensteinii* in the Dune Thicket vegetation. The presence of species such as

Euphorbia triangularis, *Plumbago auriculata* and *Scutia myrtina* in this Dune Thicket unit indicate a direct relationship with Savanna Thicket. This relationship may well indicate that the Albany Dune Thicket has long been a precursor of climax forest vegetation, probably not dissimilar to those of the present Alexandria Forest. We do, however, not imply that the Dune Thicket is a direct precursor to forest in the Clementsion understanding. We rather suggest that the Dune Thicket is crucial to stabilize the coastal dune systems permanently, which enables a Grassland or Savanna to establish in this coastal environment, which in time and in the absence of fire, is ultimately displaced by coastal forest elements. We would predict that these forest communities would display a high degree of patchiness, with some forest communities having established in the ex- Grassland-Savanna sites, while others established in the Thicket clumps. Remnant patches of Thicket vegetation are probably also a feature of these forests, as still can be seen in some of the more eastern coastal forests, such as the Umtiza forest.