

# EXTINCT & THREATENED

## ALOACEAE

### *Aloe broomii* Schonland

Status: VU B1B2cb

Threats: Harvesting, collection, habitat degradation  
This widely distributed aloe has a single poker-like inflorescence up to a metre long and a close rosette of spine-tipped leaves. The main centre of distribution for this species is in the Free State, Karoo, Eastern Cape and Northern Cape (South Africa). The species extends into western Lesotho which contains about 10% of the global distribution of this species. Its distribution extends into western Lesotho, and also patchily (although a proper survey is needed) up the Senqu Valley to beyond Linakeng. The species is restricted to riverbanks in Lesotho. Between 100 and 200 individuals estimated from Mohale's Hoek where its habitat is currently undisturbed. The species is utilised and there are cases where several sites in Lesotho have become extirpated due to habitat degradation. There are two forms—one with small bracts and conspicuous flowers, the other with large bracts that completely obscure the flower. Although varieties of this species are known to exist, only the species name is in use in Lesotho. The name *A. broomii* var. *broomii* is sometimes applied to the taxon in Lesotho.

### *Aloe polyphylla* Schonland ex Pillans

Status: VU B1B2cbce

Endemism: Endemic?

Threats: Road network, collection

The most recent reports state that despite a limited survey, at least 17,000 plants are known to exist in the wild. During a comprehensive survey undertaken in 1999, many previously unrecorded sites were discovered. Although the species is known to be removed from lower-lying, more accessible areas for horticultural purposes, many individuals remain in the wild. The population is characterised by high levels of recruitment. Despite the species being harvested intensively for at least the last 50 years, the population seems to be stable. The species was assessed as Endangered by both Hilton-Taylor (1996a) and Scott-Shaw (1999). There is an unconfirmed locality in KwaZulu-Natal (South Africa). Scott-Shaw (1999) mentions an 'unconfirmed outlying population in the KZN Drakensberg', but without further evidence there is no reason to change the Lesotho endemic status of *A. polyphylla*. It is suspected that an additional locality in the Free State (South Africa) is now extinct, but only field surveys can confirm this.

### *Aloe pratensis* Baker

Status: VU B1B2cbde

Threats: Harvesting

This small aloe, relatively common in South Africa, occurs in Lesotho only in a limited area of Qacha's Nek District (Jacot Guillarmod 1971; ROML records from Hargreaves). Listed as Uncertain in Hilton-Taylor. Also found in the Eastern Cape and KwaZulu-Natal (South Africa). The distribution stretches from sea level in Grahamstown to Cathedral Peak and Champagne Castle on the eastern side of the Drakensberg (South Africa). It is distributed in a band in southern Lesotho.

## AMARYLLIDACEAE

### *Boophane disticha* (L.f.) Herb.

Status: EN A2d

Threats: Collection, harvesting

This plant has a massive bulb, the dry outer scales of which are used to dress wounds and boils and appear to have antiseptic properties. It is now being brought in from South Africa since there is a big demand. It was used as a source of arrow poison by the San or Baroa who once lived in Lesotho before they were replaced by

pastoralists. Its endangered status applies only to Lesotho as it is widely distributed in southern Africa.

## APIACEAE

### *Alepidea amatymbica* Eckl. & Zeyh.

Status: VU A1dA2d

Threats: Collection, urban expansion

A popular medicinal plant used for treating coughs and colds, fevers and rheumatism, this plant is actively collected for its roots. Formerly widespread in Lesotho, it is regarded as vulnerable in Lesotho, because it is not used sustainably. Whole localities have gone extinct. Found from near Maseru near human settlements and at Tes'tilanyane in Leribe. It used to be found at the foot of the hill near Mlarakabei; now it is mostly restricted to the mountains. It is heavily utilised in the KwaZulu-Natal Midlands (South Africa). Widespread in summer rainfall areas of southern Africa. It is locally abundant where it is not exploited. It is used for cough remedies and colds. The plant is a reseeder. Scott-Shaw assesses it as LR-nt.

## APONOGETONACEAE

### *Aponogeton ranunculiflorus* Jacot Guill. & Marais

Status: CR B1B2d

Endemism: Near-endemic

Threats: Grazing, desiccation

First located in Sehlabathebe 'confined to pools up to 7 m deep in Cave Sandstone [Clarens] formation at about 2,600 m altitude' (Jacot Guillarmod & Marais 1972). Jacot Guillarmod (1978) published more finds by P. Cookingham who explored the South African side of the border fence within about 2 km of the nearest site in the Park and found some in pools in the sandstone at the same altitude. Schmitz (1982) reported another population discovered by John Jilbert, which is well inside Lesotho in clear pools in the basalt of the Thaba-Putsoa Range 2,900 m (Sheet 23D) from John Jilbert.

## ASCLEPIADACEAE

### *Brachystelma alpinum* R.A.Dyer

Status: EX?

Endemism: Endemic

Type specimen came from near Ramatseliso's Gate, Qacha's Nek District. (Holotype Bayliss 819,PRE) (Dyer 1980). It has not been found in the same area despite several searches by Hargreaves (1999). The possibility of finding it in a different area of Lesotho is not totally ruled out. Despite Scott-Shaw assessing it as VU D2, the assessment acknowledges that it is known from only the type locality and states that a future need is to find subpopulations of this species.

## ASTERACEAE

### *Dicoma anomala* Sand.

Status: VU A2d

Threats: Collection, habitat degradation

The root of 'hloeny'a' is used medicinally. On its own, or mixed with other herbs, it is used for a very broad range of ailments: aches and pains, diarrhoea and colic, rheumatism and fevers. It is also given to diabetics (Maliehe 1997). It is found in the Lowlands and Foothills.

## CRASSULACEAE

### *Crassula goatlambensis* Hargr.

Status: EN A2cB1B2c

Endemism: Endemic

Threats: Urban expansion

This *Crassula* is an endemic of the summit plateau. The holotype, Hargreaves 4955, is from Tlaeng Pass, Mokhotlong District at 3,270 m. Two subpopulations were seen in Sani Pass area 2,800 m (Hargreaves 1989b). There remains a distinct possibility that the species may be eaten by cattle at this locality.

## CYATHEACEAE

### *Cyathea dregei* Kunze

*Alsophila dregei* (Kunze) R.M.Tryon

Status: CR D

Threats: Habitat degradation

One old tree fern was recorded from Sehlabathebe. There is no confirmation that it is still surviving in the Park. Possibly extinct.

## CYPERACEAE

### *Carex killickii* Nelmes

Status: VU D2

Endemism: Near-endemic

This plant has been only found in a narrow zone on the Lesotho side of the eastern watershed (RSA sheet 2928AA, Lesotho sheet 28B). There is also a mention of this sedge in a checklist (Scott-Shaw 1998) for Tshehlanyane (Lesotho sheet 15D, RSA sheet 2828CD), 130 km west of the escarpment. The species is known from Indomeni Dome and Castle Buttress (South Africa). Although it has a narrow distribution range, it does not appear in Hilton-Taylor or in Scott-Shaw. This species has been undercollected.

## HYACINTHACEAE

### *Eucomis autumnalis* (Mill.) Chitt. subsp. *clavata* (Baker) Reyneke

Status: VU A1acdA2cd

Threats: Collection, habitat degradation, fire

An extract from the bulb of this plant is given to women to relieve pain during childbirth. Great caution must be used because the plant is poisonous. Leaves are also used for dressing wounds, boils and sores, the juice being first expressed from stems onto wounds or rashes (Rubright 1995). Distribution throughout Maloti. Now it is mostly confined to the lower mountain sides, mainly on the east-facing slopes. Listed as Rare in Hilton-Taylor. Also found in KwaZulu-Natal (South Africa) and further afield in Swaziland.

### *Urginea saniensis* Hilliard & B.L.Burtt

Status: VU D2

Endemism: Near-endemic

This lily from Sani Top has been regarded as a Lesotho endemic by Hilliard (1990). However, Scott-Shaw (1999) records its distribution as 'KZN and Lesotho Drakensberg at Sani Pass' found in 'Drakensberg Alpine Tundra'. The species is known from basalt rock sheets at 2,900 m. Listed as Uncertain in Hilton-Taylor. Scott-Shaw assessed it as Data Deficient.

## LEGUMINOSAE: PAPILIONOIDEAE

### *Calpurnia robinoides* (DC.) E.Mey.

Status: VU D1D2

Endemism: Near-endemic?

Threats: Urban expansion, fire

This is the accepted name in use in Lesotho. The wood of this small tree is used for house building and for firewood (Jacot Guillarmod 1971). Individual trees have been seen near Koro-Koro and on the Mpetsana riverbank in Maseru District and at two localities in the Berea District. It has also been reported from the lower Senquyane, northeast of its confluence with the Senqu

(Euston-Brown 1996). Much of its distribution in Lesotho is fragmented, many not less than 500 m apart.

**Lotononis listii Polhill**

Status: CR B1B2abD

The genus *Lotononis* has a number of species, widely used by Basotho for the treatment of bronchitis (Watt & Breyer-Brandwijk 1962). *Lotonis listii* is known from a small population in the upper Koro-Koro Valley and PRECIS records show four other Lesotho records, three from Maseru District and one from Mafeteng District. *L. stricta* has a similarly limited distribution, apparently due to over-collection.

**Lotononis stricta (Eckl. & Zeyh.) B.-E.van Wyk**

Status: EN C2aD

Threats: Collection, erosion, fire  
Recent reports suggest that *L. stricta* has become rare in Lesotho. It is a medicinal plant. Only one plant was seen on the Qoaling plateau in Maseru and a small site at Ha Sekhobe on the western flank of Thaba-Telle in Maseru District has been reported. There is also a record from Blue Mountain Pass area. Older records include Hélène Jacottet at Whitehill, Qacha's Nek District c. 1910; Archibald at Thaba-Tshoeu, Mahale's Hoek District in 1946; and Compton at Likolobeng north of 'Mamalapi, Berea District without date (all three cited in Jacot Guillard (1971)).

## MALVACEAE

**Anisodontea gracilis Bates**

Status: CR C2aD

This plant has been reduced in numbers through intensive land use in its habitat, which is river valleys in the south and west border areas of the Lowlands of Lesotho. Listed as Uncertain in Hilton-Taylor. Also known from Free State and the Eastern Cape (South Africa). Only found once in Lesotho, although only known from South Africa according to PRECIS.

## MYRICACEAE

**Morella serrata (Lam.) Killick**

*Myrica serrata* Lam.

Status: VU C2a

Threats: Collection

A tree whose widely distributed, isolated occurrences in the Lowlands and Foothills suggest an earlier, much larger, distribution. Its roots are used for treating headaches and as an insurance against bad luck. It is also cut for fuel.

## POACEAE

**Ehrharta longigluma C.E.Hubb.**

Status: CR C2a

Threats: Urban expansion

There are apparently just five records of this critically endangered grass: Hoener 1747, Sehlabathebe, 1977; Hilliard & Burt 15521, South KwaZulu-Natal Drakensberg; Morris 182 (ROML 3486), Lejone, 2,300 m, 1991; Smook 7106 (ROML 3497), 22 km SW of Thaba-Tseka on road to Lesobeng, 2,800 m, 1990; Linder 6698, near Katse [= Mafika-Lisiu] Pass summit 3,200 m, 1998. Since the various collecting points are some distance apart, it is possible that this grass has simply been undercollected and its status may change. Listed in Scott-Shaw as LR-lc.

**Thamnocalamus tessellatus (Nees) Soderstr. & R.P.Ellis**

Status: VU D1

Threats: Collection

This bamboo, indigenous to southern Africa, is widely distributed in Lesotho in remoter areas. Typical subpopulations are made up of 250–300 individuals, which do not flower for many years and then all apparently flower simultaneously after which the plants die. Formerly, the bamboo was used for assegai handles

and for house construction, but newer methods of warfare and house building have reduced exploitation for these purposes.

## PROTEACEAE

**Protea caffra Meisn. subsp. caffra**

*Protea multibracteata* E.Phillips

Status: EN B1B2abcde

Threats: Collection

One large subpopulation and much reduced subpopulations in Makhunoane, while some are still left in a residual part (about 2 ha) of Levi's Nek Kloof.

**Protea multibracteata E.Phillips**

Status: CR C2a

Threats: Harvesting, grazing

This species was apparently present in Lesotho in the past. ROML has no specimens and the present status is uncertain.

**Protea roupelliae Meisn.**

Status: CR C2aD

Threats: Harvesting

*Proteas* in Lesotho are in decline. In most cases they seem to be ageing populations, which are not replacing plants that are cut or die. However, the best-known site in Butha-Buthe District apparently has several thousand trees of *Protea caffra* Meisn. subsp. *caffra*. In Qacha's Nek District, just one plant of the species *P. subvestita* N.E.Br. survives in the Sehlabathebe National Park, but it was apparently previously more widespread, villages with the name Liqalabeng being markers of its former distribution. A report by F.K. Hoener (1977) of *P. dracomontana* at Sehlabathebe is of a plant growing on the South African side of the border. Although all *Protea* species are protected by law, in practice they have little real chance of survival unless the local chief, as indeed is sometimes the case, takes a particular interest in their protection.

## RUTACEAE

**Agathosma ovata (Thunb.) Pillans**

Status: VU A1cd

An attractive much-branched shrub with clusters of white flowers, the Oval-leaved Buchu is valued for its traditional medicinal properties. No records have been found after Madame Dieterlen's from Moyeni Mountain

in the south of Lesotho, and one specimen from E.H. Ashton more than 50 years ago. *A. ovata* used to be planted in gardens. It could be extinct in Lesotho. Also known from the Eastern Cape and KwaZulu-Natal (South Africa). Listed as Indeterminate in Hilton-Taylor. This species is generally utilised throughout its range.

## SCROPHULARIACEAE

**Jamesbrittenia beverlyana (Hilliard & B.L.Burt) Hilliard**

Status: VU D2

Endemism: Endemic

This endemic plant appears to be confined to a small area in Sehlabathebe Park in rocky soil under an overhang at about 2,325 m. The locality has been extensively surveyed but without success. Nothing is known about threats at the type locality, and the species quite likely still exists there.

**Jamesbrittenia lesutica Hilliard**

Status: VU D2

Endemism: Endemic

Threats: Urban expansion

Recorded specimens of this species have so far all been from Mokhotlong District in Lesotho and (Hilliard 1994) are NBG Compton 21604, 1949, Phutha (Mokhotlong), 2,108 m, sheet 38A (holotype); BM [= Natural History Museum, London] Brooke 39, 1938, Phutha, 2,400 m, sheet 38A; m [= Botanische Staatssammlung, Munich], PRE Dohse 313, 1956, Phutha, 2,400 m, sheet 38A; PRE Liebenberg 5691, Merareng on Sanqebethu, c. 2,500 m, sheet 39A (Lesotho sheet 38 = RSA sheet 2929AC; Lesotho sheet 39 = RSA sheet 2929AD). It has conspicuous white flowers. The species co-occurs with *Jamesbrittenia jurassica* but it has a much smaller distribution range.

## TILIACEAE

**Sparrmannia ricinocarpa (Eckl. & Zeyh.) Kuntze**

Status: CR C2abD

Threats: Grazing, urban expansion

This shrub, although widespread in South Africa and Swaziland, seems to be critically threatened in Lesotho, since it is only known so far from a small group of bushes at Lancers' Gap. Known mainly from the Free State (South Africa).

## ALOACEAE

### *Aloe aristata* Haw.

**Status:** LR-nt

Threats: Harvesting

A small aloe with attractively spotted leaves. It has been offered for sale along the Mountain Road, probably because those selling it knew that *A. polyphylla* was highly, although illegally, marketable, and now that the supply is exhausted, this might be a marketable substitute. However, it seems that *A. aristata* is itself also becoming rare near the Mountain Road, because it is no longer offered for sale. In the 1950s, *A. aristata* could still be found on the slopes of the hillside at Botsabelo near Maseru (sheet 32D, RSA sheet 2927BC) (J. Jaques, pers. comm.). Known from the more inaccessible Foothills and Highlands. Found in the Karoo, Eastern Cape and KwaZulu-Natal (South Africa). Protected in the Drakensberg Ukhahlamba National Park along Lesotho's border with South Africa.

### *Aloe ferox* Mill.

**Status:** LR-lc

Threats: Harvesting, urban expansion

This tree aloe, which can exceed 2 m in height, dominates north-facing hillsides in Quthing District, which are ablaze with their 500 mm-long vermilion flowering spikes in September and October. It can also be found in Mahale's Hoek District and extends as far as the southern tip of Mafeteng District in the Makhale Valley. Indeed, Makhale derives its name from this species. Found at Mahale's Hoek, Mafeteng (also Lifateng) and Tele Tele. Many other localities exist for this species, often adjacent to human settlements. It is claimed that the plant is not threatened, but several localities have become extinct in Lesotho. The species extends into Lesotho. It is found throughout the Eastern Cape, Western Cape, KwaZulu-Natal (South Africa). Lesotho contains about 5% of the global population. The leaves are harvested for medicinal purposes, usually in small quantities. The leaf extract is widely used medicinally, but apparently at present sustainably, so that there seems to be no major threat.

## ASCLEPIADACEAE

### *Brachystelma perditum* R.A.Dyer

**Status:** LR-nt

Threats: Habitat degradation

There are only two published records for this species: one (found in 1976) in Lesotho 'north of Rama's Gate' (Dyer 1980) and the type specimen (found in 1907) from Nyiginye, north of Ntabamhlope in Drakensberg foothills, 1,800 m, KwaZulu-Natal. Listed as Rare in Hilton-Taylor; also known from KwaZulu-Natal and Free State (South Africa).

## HYPOXIDACEAE

### *Rhodohypoxis thodiana* (Nel) Hilliard & B.L.Burtt

**Status:** LR-nt

Endemism: Near-endemic

Threats: Habitat degradation, grazing

Recorded (Hilliard 1990) as occurring in damp turf above 2,700 m, there are records from both sides of the Lesotho/KwaZulu-Natal border.

## SCROPHULARIACEAE

### *Glumicalyx lesuticus* Hilliard & B.L.Burtt

**Status:** LR-lc

Endemism: Endemic

Threats: Habitat degradation

The type specimen of this endemic species is from Sani Top at about 2,850 m. The species has been found at a

number of other widely dispersed localities from about 2,250 m to 3,230 m (Hilliard 1994). There is no apparent particular demand for the plant.

### *Jamesbrittenia jurassica* (Hilliard & B.L.Burtt) Hilliard

**Status:** LR-lc

Endemism: Near-endemic?

Threats: Grazing

What is known about this endemic species is well documented in Hilliard (1994). The type specimen is from Sani Top on the Lesotho side of the border at 2,900 m, and it forms a small flowery mat on bare gravelly ground between 2,500 m and 3,230 m above sea level. There is also a record from Oxbow (a colour slide in the Edinburgh herbarium) and Olive Hilliard comments that 'it is clearly widely distributed over the high mountains of Lesotho'.

### *Zaluzianskya oreophila* Hilliard & B.L.Burtt

**Status:** LR-nt

Endemism: Near-endemic

The type specimen of this species of *Zaluzianskya* is from 2,900 m at Sani Top, Thaba-Tseka District, Lesotho (sheet 49A), and there are also records from the summit plateau nearby in KwaZulu-Natal (South Africa). There is another record from much farther west in Lesotho at Likalaneng (sheet 34C). This justifies placing it in the category of LR-nt rather than DD. Described by Hilliard (1994) as an 'Eastern Mountain endemic'.



**High-altitude sandstone rock pools support fragile aquatic ecosystems in Lesotho. (Photo: SABONET)**

# DATA DEFICIENT

## ALOACEAE

### *Aloe ecklonis* Salm-Dyck

*Aloe kraussii* Baker

**Status:** DD

There are seven specimens of *Aloe kraussii* in ROML collected in the Roma Valley by Schmitz or Hargreaves in the period 1974–1984. However, Reynolds (1950) observed that 'plants from western Basutoland appear to be *A. ecklonis* rather than *A. kraussii*'. There are several other Lowlands and Foothills records (Jacot Guillarmod 1971). Listed as not being threatened in Hilton-Taylor. Also found in the Eastern Cape, KwaZulu-Natal (South Africa) and Swaziland (unconfirmed). Taxonomic uncertainty of this species in Lesotho.

## ANACARDIACEAE

### *Rhus pyroides* Burch. var. *gracilis* (Engl.) Burt & Davy

**Status:** DD

Endemism: Endemic?

The population in Lesotho is not severely fragmented, but there are more than five localities. The variety is apparently known only from Lesotho but this cannot be established. The species co-occurs with *Rhus pyroides* var. *integrifolia*.

### *Smodingium argutum* E.Mey. ex Sond.

**Status:** DD

The sap of this plant is a skin irritant and its pollen causes painful blisters in sensitive subjects, hence its name. Madame Dieterlen found it in 'Matalane Gorge, Leribe' (sheet 14A). One of her specimens is in MASE, but when examined, it seemed to be close to *Rhus bolusii*. The late chief Theko Maama (1905–81) claimed to be familiar with the tree and provided the Sesotho name, seloane-se-mpshehetse 'the monster that soiled me', which confirmed knowledge of its poisonous properties (Talukdar 1981). However, there has been no confirmed record of the tree for at least the past 50 years.

## ASCLEPIADACEAE

### *Asclepias eminens* (Harv.) Schltr.

**Status:** DD

There are five records of this asclepiad in ROML, three in MASE and one at SEHL (Kali & Hargreaves 1985) and it is also widespread in South Africa and Swaziland (Arnold & De Wet 1993). It does not appear to be rare. Listed as Vulnerable in Hilton-Taylor.

### *Asclepias xysmalobioides* Hilliard & B.L.Burt

**Status:** DD

Endemism: Near-endemic

This species is locally common on the summit of the Maloti (Hilliard & Burt 1986a). There are also records from the KwaZulu-Natal side of the watershed.

### *Cynanchum meyeri* (Decne.) Schltr.

**Status:** DD

This species appears from Arnold & De Wet (1993) to be a Namibian rather than a Lesotho endemic. *C. virens* Dietr. has been collected in Lesotho (sheets 14A, 32D) by Madame Dieterlen and Miss Archibald. Listed as Vulnerable/Endangered in Hilton-Taylor. Recorded from the former Cape and Transvaal in South Africa.

### *Schizoglossum elingue* N.E.Br. subsp. *purpureum* Kupicha

**Status:** DD

Endemism: Near-endemic?

Sehlabathebe has two records: Beverly 265, 1976; 497, 1976. Beverly 783 is from Kokstad, on Lesotho's

southeastern border. Found at an altitude of 2,000–2,700 m.

### *Schizoglossum montanum* R.A.Dyer

**Status:** DD

Endemism: Near-endemic

Rubright (1995) collected *S. montanum* from Mosafeleng, Tsatsa-Lemeno Range Management Area, Qacha's Nek District (sheet 57D). It is also found in the mountains of KwaZulu-Natal (South Africa). An eastern mountain endemic. Listed as Rare in Hilton-Taylor. Scott-Shaw assesses it as LR-lc.

## ASTERACEAE

### *Euryops evansii* Schltr. subsp. *dendroides* B.Nord.

**Status:** DD

Endemism: Endemic

There is one recorded site for this subspecies from 'Maletsunyane Gorge at Semonkong' (sheet 54A), where it was found by B. Nordenstam. There is also one later 1995 record from Bokong, altitude 2,400 m (sheet 34C), Linder 6278, which is probably in the Bolus Herbarium (AfriDev Consultants 1996).

### *Euryops inops* B.Nord.

**Status:** DD

Endemism: Near-endemic?

Almost all reports of this plant are from Lesotho: Merareng in Mokhotlong District (sheet 39A); Lesobeng in Thaba-Tseka District; and Oxbow in Butha-Buthe District. No herbarium records in Lesotho. Also in Cathedral Peak on the path to One Tree Hill (South Africa).

### *Gnaphalium griquense* Hilliard & B.L.Burt

**Status:** DD

Endemism: Near-endemic?

Found in Sehlabathebe: Beverly 141 and Hoener 1821. *G. griquense* descends into neighbouring East Griqualand (Hilliard & Burt 1987). Listed as Rare in Hilton-Taylor. Also found in KwaZulu-Natal (South Africa).

### *Gymnopentzia bifurcata* Benth.

**Status:** DD

There are eight records from several parts of Lesotho in ROML for this well-known shrub from both Foothills and Maloti (1,800–3,000 m), and the species is listed in Arnold & De Wet (1993) as occurring in all four former provinces of South Africa. It is clearly neither rare nor data deficient. Listed as Rare/Vulnerable in Hilton-Taylor.

### *Helichrysum palustre* Hilliard

**Status:** DD

Endemism: Near-endemic

The location for the type specimen of this *Helichrysum* is (Hilliard 1977) 'Lesotho, plateau at headwaters of Lotheni river, c. 400 yards from exit of Bushman's River Pass, c. 3,050 m, Wright 753'. This description more likely fits the top of Giant's Castle Pass (in South Africa, but about 1 km from the Lesotho border) than it fits what is generally considered to be Bushman's River Pass, which is an alternative name for Langalibalele's Pass. Only in the second case would it be a Lesotho specimen. The plant is typically found in marshy areas over an apparently wide area because it has been found in the Bokong Valleyhead Fen (sheet 25B) (Schwabe 1992) and also near Mothae (sheet 17C) and near Sani Top (sheet 49A) (both records from Hilliard (1977)). Assessed as DD by Scott-Shaw.

### *Othonna burttii* B.Nord.

**Status:** DD

Endemism: Near-endemic

There are Lesotho records for this low shrub, which

forms cushions on exposed rocky surfaces, from Sehlabathebe (Hoener 1900) and 'Oxbow summit plateau' [= Mahlasela, sheet 16B] (Hirst 1996, deposited in Edinburgh Botanical Garden Herbarium). It is also found in KwaZulu-Natal and the Eastern Cape (Hilliard & Burt 1987). Listed as Rare in Hilton-Taylor. Scott-Shaw lists it as LR-lc.

### *Senecio austromontanus* Hilliard

**Status:** DD

Endemism: Near-endemic?

This plant has been recorded in Lesotho only from seepage areas and damp grassland at about 2,300–2,400 m in Sehlabathebe and nearby at Thamathu Pass (Hilliard & Burt 1987). It is widely distributed in elevated areas outside Lesotho including Swaziland (Arnold & De Wet 1993).

### *Senecio saniensis* Hilliard & B.L.Burt

**Status:** DD

Endemism: Near-endemic

The type specimen for this species was collected by Mrs D.C. Grice in February 1972 (Hilliard 1977) at the summit of Sani Pass at an altitude of 2,865 m on southwest facing cliffs, a description which would place the collecting site just within KwaZulu-Natal. There is one PRECIS record from Lesotho. Scott-Shaw (1999) regards the plant as a KwaZulu-Natal Drakensberg endemic, occurring from Sani Pass to the headwaters of the Lotheni River. Listed as Rare in Hilton-Taylor. Scott-Shaw records it as LR-lc.

## BORAGINACEAE

### *Cynoglossum alticola* Hilliard & B.L.Burt

**Status:** DD

Endemism: Endemic

The type specimen is from the slopes of Ben Macdhui at 2,623 m on Lesotho's southern border and the plant has been recorded from Mokhotlong at 2,286 m (Hilliard & Burt 1986b).

### *Ehretia rigida* (Thunb.) Druce

**Status:** DD

Endemism: Near-endemic

Threats: Urban expansion

This small tree has a precarious fragmented foothold around Maseru, the capital. Another small area at Matseng Ha Sempe, 13 km north east of Maseru has just three individual bushes. The species has also been found on the south of the Mpetsana River bank and west and south of Qeme Plateau. Increasing urbanisation has apparently critically affected this species within Lesotho.

## CAMPANULACEAE

### *Wahlenbergia doleritica* Hilliard & B.L.Burt

**Status:** DD

Endemism: Near-endemic

Rare according to Hilton-Taylor (1996), this Drakensberg–Maloti endemic is recorded from Thamathu Pass and on basalt cliffs at Sehlabathebe (Hilliard & Burt 1987) at about 2,500 m.

## CRASSULACEAE

### *Crassula lanuginosa* Harv. var. *pachystemon*

(Schonland & Baker f.) Toelken

**Status:** DD

Hargreaves (1991) found *C. lanuginosa* in two sites in Lesotho. There are viable populations in the Eastern Cape (South Africa). Listed as Rare in Hilton-Taylor.

## CYPERACEAE

*Carex monotropa* Nelmes

Status: DD

Endemism: Near-endemic

This sedge has been found at a number of localities from the mountains of Mokhotlong District as far as Sani Top, and has recently been found also nearby in KwaZulu-Natal (South Africa). Earlier PRECIS records were wholly from Lesotho. It needs to be monitored within the newly created Transfrontier Area.

## DRYOPTERIDACEAE

*Polystichum dracomontanum* Schelpe & N.C.Anthony

Status: DD

Endemism: Near-endemic

This Maloti-Drakensberg endemic fern occurs on the Drakensberg escarpment between 1,600 and 3,000 m (Schelpe & Anthony 1986) and has also been recorded at Sehlabathebe. Its habitat is along streambanks, boulder bases, scree and scrub, rarely also in forests. Found on lower Clarens Sandstone and Upper Basalt formations.

## GERANIACEAE

*Pelargonium oppositifolium* Schltr.

Status: DD

Endemism: Endemic?

This species appears as a Lesotho endemic in Arnold & De Wet (1993), but from resources in Lesotho, no published reference could be found. There is also a report that the plant has recently been found.

## HYACINTHACEAE

*Scilla natalensis* Planch.

Status: DD

This large blue scilla was recorded as long ago as a manuscript recording a journey of February 1840 (but only published 150 years later as Arbousset (1991)). Arbousset noted that there is a bulbous root covered by layers that wrap around each other like an onion. It was and is used for treating a wide variety of human and animal illnesses, and indeed Arbousset observed 'there is no medicine it does not go into'. He saw the plant in the vicinity of Tsipa Ha Sekhobe (Lesotho sheet 24A, RSA sheet 2928AA). Distribution apparently Lowlands and Foothills, but there are few herbarium records, apart from Madame Dieterlen's collection from 'Matalane Gorge, Leribe District (sheet 14A).

## HYPOXIDACEAE

*Hypoxis hemerocallidea* Fisch. & C.A.Mey.

Status: DD

Threats: Collection

Widely distributed in southern Africa, including Botswana and Swaziland, this species is heavily utilised in Lesotho for its underground corm, which is in demand for treating prostate problems and urinary infections (Van Wyk, Van Oudtshoorn & Gericke 1997). The only Lesotho herbarium specimen seems to be in MASE. However, it has also been recorded from Tsatsa-Lemeno (sheet 57D) (Rubright 1995) and is being planted in Katse Botanical Garden as a rescue operation (Ntloko 2001).

## IRIDACEAE

*Dierama jucundum* Hilliard

Status: DD

The type specimen is from the farm Fetcani Pass, near

Barkly East in the Eastern Cape (South Africa). This graceful flower has only ever been recorded twice and the other record is from Lesotho (Schmitz 7891 ROML and PRE). It was collected 'in a big tuft on a dry rocky slope, flowers pale mauve' in October 1977 between Mafeteng and Mohale's Hoek (believed to be sheet 51C) in southern Lesotho about 120 km to the north-northwest of the first site. No further finds have been made of this attractive Dierama (Hilliard & Burt 1988; 1991).

*Hesperantha crocopsis* Hilliard & B.L.Burt

Status: DD

Endemism: Endemic

This species is regarded as a Lesotho endemic by Hilliard & Burt (1986c). The type specimen is from 'Lesotho, Mokhotlong distr., above Mashai Pass, c. 2,870 m, 1977, Hilliard & Burt 10489 (E holo., NU iso.): There is a problem with this location, because neither of the two places known as Mashai Pass are in Mokhotlong District, and both are higher than 2,870 m, which would better fit Sani Top. On balance it seems that the plant must have been collected at the Mashai Pass which straddles the Lesotho border (sheet 48D). Other recorded sites are Sani Top (sheet 49A) and 'Black Mountains' [= Kotisephola] c. 3,050 m (sheet 48B). Hilliard & Burt remark that the plant is found in short wet turf, and flowers in November: 'it is certainly elsewhere in the mountains of Lesotho.'

*Romulea luteiflora* (M.P.de Vos) M.P.de Vos var. *sanisensis* M.P.de Vos

Status: DD

Endemism: Near-endemic

Threats: Habitat degradation, grazing

The type specimen for this variety is from flat grassland at Sani Top on the Lesotho side of the border (De Vos 1983). It is obviously under threat from grazing animals. It is listed as Vulnerable in Hilton-Taylor. Scott-Shaw records it from KwaZulu-Natal (Cobham) where it is Vulnerable.

## LEGUMINOSAE: MIMOSOIDEAE

*Elephantorrhiza elephantina* (Burch.) Skeels

Status: DD

The crushed underground stem of this plant is used to stop bleeding and to treat syphilis and intestinal disorders. Distribution Lowlands and Foothills.

## LEGUMINOSAE: PAPILIONOIDEAE

*Lessertia glabricaulis* L.Bolus

Status: DD

Endemism: Endemic

Threats: Grazing, erosion

This species is very rare as there is only one record in the PRECIS database, which is from the Makhoaneng Plateau near Pitseng (sheet 14D). There is also one specimen in MASE, as listed in Kali & Hargreaves (1985), but without details of collecting locality.

*Lessertia thodei* L.Bolus

Status: DD

Endemism: Near-endemic

Details of this legume, found at altitudes from 2,100–2,900 m on rocky grassland, are given by Hilliard & Burt (1987) who cite a Sehlabathebe record by Jacot Guillarmod, Getliffe & Mzamane (70). Also recorded from the Free State and KwaZulu-Natal (South Africa).

*Rhynchosia dieterlenae* Baker f.

Status: DD

Endemism: Endemic

Threats: Collection

According to Jacot Guillarmod (1971), the only record of this plant is from the 'Matalane Gorge (sheet 14A), Dieterlen 840'. The roots are used for medicinal purposes. The species has a taproot, so the entire plant is removed for usage.

## MALVACEAE

*Anisodonteia julii* (Burch. ex DC.) Bates subsp. *prostrata* (E.Mey. ex Turcz.) Bates

Status: DD

A very restricted wild population has been located in Tele-Tele in Uthung district close to the border with the Eastern Cape (May, in press), where it is also present. Known from near the former Transkei border. Probably occurs more widely in Lesotho, but is currently known only from a linear strip near the former Transkei. Herbarium specimens from Lesotho have localities mainly along the Free State border.

## MESEMBRYANTHEMACEAE

*Delosperma ashtonii* L.Bolus

Status: DD

This is a high altitude mesembryanthemum also found in KwaZulu-Natal and the Eastern Cape (South Africa). Meakins, Hargreaves and Mochaba (1988) recorded it from the Malibamatso and Bokong confluence at Katse now occupied by Katse Reservoir. There was a rescue operation in 1995 and 1996 to save the plants before inundation (Ntloko 2001).

*Delosperma clavipes* Lavis

Status: DD

Endemism: Endemic?

This is probably a Lesotho endemic, known from the wetlands at the top of the plateau behind Mafika-Lisui Pass (Meakins et al. 1988) and from the slopes of Machache 2,880 m (Hargreaves 1989a).

*Delosperma nubigenum* (Schltr) L.Bolus

Status: DD

Hargreaves reported this yellow-flowering species also from Machache (1989a). Hirst (1996) has published a photograph of *D. nubigenum* in The Rock Garden, without mentioning the locality.

*Rabiea lesliei* N.E.Br.

Status: DD

Endemism: Endemic

Threats: Urban expansion

The only record at present available in Lesotho for this mesembryanthemum is that it is listed as an apparent Lesotho endemic in Arnold & De Wet (1993). Known only from the Maseru area.

## ORCHIDACEAE

*Brownleea recurvata* Sond.

Status: DD

This orchid has a widespread distribution in the Eastern Cape, extending just into the Western Cape and with an outlier in Mpumalanga (South Africa). There is a Lesotho record from Sehlabathebe (Hoener 1800, 23 ii 1977).

*Corycium alticola* Parkman & Schelpe

Status: DD

Endemism: Endemic

This is quite a rare orchid, known only from a few widely dispersed locations in the Eastern Cape, KwaZulu-Natal and Lesotho (Linder & Kurzweil 1999): 'found in damp grassland from 1,950–2,400 m.' The only known Lesotho record seems to be from Thabana-Tsekanyana near Roma (sheet 33C).

*Disa basutorum* Schltr.

Status: DD

Endemism: Near-endemic

This orchid grows on damp turf slopes above 2,600 m (Hilliard & Burt 1987) and Scott-Shaw (1999) mentions 'summit of the Lesotho and KwaZulu-Natal Drakensberg'. The cited reference in Hilliard & Burt (1987) is Linder 1034, but the location is not given. This species is Data Deficient until more information is available. Scott-Shaw assesses it as LR-lc.

***Disa cephalotes* Rchb.f. subsp. *frigida* (Schltr.)****H.P.Linder****Status: DD**

Endemism: Near-endemic

This high-altitude orchid subspecies is stated (Linder & Kurzweil 1999) to be 'rare in Lesotho and KwaZulu-Natal; in large or small populations in dry to damp grassland at 3,000 m on the summit of the Drakensberg'. Data deficient until extent of Lesotho occurrences is clarified. Listed as Rare in Hilton-Taylor. Also in Free State and possibly in KwaZulu-Natal (South Africa). Scott-Shaw assesses it as LR-lc.

***Disa oreophila* Bolus subsp. *erecta* H.P.Linder****Status: DD**

Endemism: Near-endemic

It is stated for this orchid subspecies (Linder & Kurzweil 1999) that 'it is occasional in the Drakensberg in the Eastern Cape, Lesotho and KwaZulu-Natal; on rock ledges and damp grassy slopes between 2,250 and 2,700 m, usually growing in soils derived from basalt'. Data deficient until extent of Lesotho occurrences is clarified. A record of this orchid is in MASE (Kali & Hargreaves 1985).

***Disa tripetaloides* (L.f.) N.E.Br.****Status: DD**

Not a Lesotho species but a species of the Cape and KwaZulu-Natal coasts. Possibly the intention was to include *D. tysonii* which is found in the Eastern Cape and of which there are two known records from sheets 16A and 16C. Listed as Rare/Vulnerable in Hilton-Taylor.

***Satyrium microrrhynchum* Schltr.****Status: DD**

This rare orchid is known from only six localities, stretching 470 km from Mpumalanga to the Eastern Cape (South Africa). It is found on grassy and sometimes stony or moist slopes from 1,600–3,300 m (Linder & Kurzweil 1999). There is one Lesotho record, Hoener 1792 from the Rock Pools area in Sehlabathebe (Hoener 1979). Scott-Shaw assesses it as LR-lc.

## POACEAE

***Agrostis subulifolia* Stapf****Status: DD**

Endemism: Near-endemic

There are several records of this grass from Lesotho. ROML specimens include Morris from Ha Lejone and Killick from Oxbow. Backéus' specimens from Khalong-la-Lithunya 3,240 m (sheet 17C), and also from the southwest of Mont-aux-Sources are in Sweden (UPS) (Backéus 1988). Subalpine grassland to Drakensberg Alpine Tundra and occupies damp sites mainly in sedge meadows. Listed in Scott-Shaw as LR-lc. It is also found in South Africa (KwaZulu-Natal).

***Anthoxanthum brevifolium* Stapf****Status: DD**

Endemism: Near-endemic

Subalpine grassland to Drakensberg Alpine Tundra and occupies damp sites mainly in sedge meadows. Listed in Scott-Shaw as LR-lc. This is a rare Drakensberg endemic. It is also found in KwaZulu-Natal (South Africa). Gibbs Russell et al. (1990) state that except for the very short and broad leaf blades, this species cannot be separated from *A. ecklonii*, and therefore cannot be regarded as a separate taxon. Sixteen specimens of *A. ecklonii* at ROML and six at MASE were measured. There was a wide range in leaf sizes and the broadest ones were not necessarily short. From Lesotho collections it is not possible to separate *A. brevifolium* from *A. ecklonii*.

***Aristida monticola* Hern.****Status: DD**

Endemism: Near-endemic

This is a high altitude grass from the eastern mountains. ROML has a specimen collected by Du Toit in 1977 between Bushmen's Nek and Sehlabathebe (ROML 1863) at 2,400 m. This record, because of its altitude, probably refers to Lesotho. Scott-Shaw (1998) mentions

this grass, but provides no clear record from Tsehlanyane or Upper Bokong. The grass is known from high altitude sedge meadows in KwaZulu-Natal. It is presumably a Maloti-Drakensberg endemic, but definite Lesotho records are still needed. Listed in Scott-Shaw as LR-lc.

***Bromus firmior* (Nees) Stapf****Status: DD**

Endemism: Near-endemic

This grass, which also occurs in the Free State and KwaZulu-Natal, is 'locally common in Senqunyane valley, also in Bokong and Jordane valleys altitude 2,400 m 2928AC' (AfriDev Consultants 1996). There is a duplicate ROML record from sheet 34C. It is likely that it will be found elsewhere in Lesotho. Listed in Scott-Shaw as LR-lc.

***Colpodium drakensbergense* Hedberg & I.Hedberg***Colpodium hedbergii* (Melderis) Tzvelev**Status: DD**

Endemism: Near-endemic?

This grass genus is confined to the 'archipelago' of high African mountain summits (White 1978), and this particular species has been found in Lesotho (Schmitz 1984). Listed as Rare in Hilton-Taylor. Also in KwaZulu-Natal (South Africa).

***Festuca dracomontana* H.P.Linder****Status: DD**

Endemism: Near-endemic

Threats: Habitat degradation

High-altitude grass. The type specimen is from a slope bordering Letsheng-la-Letsie, sheet 74B (RSA sheet 3028AC) (Linder 1986). ROML has a duplicate from P.C.V. du Toit 2714, also from near Letsheng-la-Letsie. The grass is mentioned in Scott-Shaw's 1998 checklist from Bokong, Leribe District (presumably sheet 25B), but with no details about exact locality. *F. dracomontana* also occurs in the Mpumalanga Drakensberg, far north of Lesotho (Arnold & De Wet 1993). Recent high rates of cattle theft between southern Lesotho and the Eastern Cape have resulted in sufficient insecurity in the border zone that people can no longer graze animals there. As a result the grassland (including that around the lake (Letsheng-la-Letsie)) has recovered from its previously overgrazed status, although this may only be a temporary phenomenon. Listed as Rare in Hilton-Taylor.

***Festuca killickii* Kenn.-O'Byrne****Status: DD**

Endemism: Near-endemic

Threats: Habitat degradation

This grass has a wider distribution than *Urginea saniensis*. It is confined to high areas in the Drakensberg from 1,980–2,500 m, and was found by O'Byrne at Sehlabathebe, which is the only Lesotho record. Listed in Scott-Shaw as LR-lc.

***Merxmüllera aureocephala* (J.G.Anderson) Conert****Status: DD**

Endemism: Near-endemic

Threats: Grazing, fire

Although there are no records from Lesotho, this species is likely to occur here, because it has been recorded on basalt slopes and sandstone ridges in the southern KwaZulu-Natal Drakensberg (South Africa) (Hilliard & Burt 1987). Listed in Scott-Shaw as LR-lc.

***Merxmüllera guillarmodiae* Conert****Status: DD**

Endemism: Near-endemic

Threats: Grazing, fire

There is one specimen in ROML from Sani Top in Lesotho (sheet 59A), P.C.V. du Toit 2206, collected in 1977 on top of the escarpment on dark brown gritty, gravelly, loamy, humus-rich soil (illustrated in Kali & Hargreaves (1985)). It has also been found in the LHWP Phase 1A Area (Loxton, Venn & Associates 1993). This grass also occurs in KwaZulu-Natal (Arnold & De Wet 1993). Listed in Scott-Shaw as LR-lc.

***Pentastichis praecox* H.P.Linder****Status: DD**

Endemism: Near-endemic

Threats: Grazing, fire

This high-altitude grass appears as a Lesotho endemic in Gibbs Russell et al. (1990) and Arnold & De Wet (1993). The distribution shows two locations within Lesotho near the eastern border, and the plant is said to flower in September and to be found in 'sour grassland in the montane belt' (Gibbs Russell et al. 1990). A reference to Linder & Ellis (1990) is given in Gibbs Russell et al. (1990), but without full citation details. Scott-Shaw assesses it as LR-lc and considers it a rare Drakensberg endemic.

***Phacelurus frankisiae* (J.M.Wood) Clayton****Status: DD**

Endemism: Near-endemic

Threats: Grazing, fire

This has been mentioned as a KwaZulu-Natal grass by Hilliard & Burt (1987), but there is no known Lesotho record. Listed in Scott-Shaw as LR-lc.

***Setaria obscura* de Wit****Status: DD**

Endemism: Near-endemic

Threats: Habitat degradation, grazing, fire

This plant appears to be a KwaZulu-Natal endemic. Listed in Scott-Shaw as LR-lc.

## PORTULACACEAE

***Anacampseros rufescens* (Haw.) Sweet****Status: DD**

Definite Lesotho records of this species are over 40 years old, PRE Dieterlen 625 from Leribe and Paroz from Thabana-Morena (Jacot Guillarmod 1971). *Anacampseros* material in ROML collected by Hargreaves (Hargreaves & Kali (1985), 3744 and 3751) still has to be identified to species level. Listed as Indeterminate in Hilton-Taylor; also listed in the Eastern Cape, KwaZulu-Natal, Free State (South Africa) and Swaziland. According to PRECIS, this species occurs only in South Africa.

## ROSACEAE

***Prunus africana* (Hook.f.) Kalkm.****Status: DD**

This tree was collected by Hoener FKH 2027 from the Rock Pools area in the shelter of a sandstone outcrop in Sehlabathebe, 1978. This is the only known record from Lesotho, and the tree no longer survives. The species occurs nearby, east of the escarpment, and seeds may be dispersed by birds. It closely resembles *Prunus serotina*, an exotic. *P. serotina* has been planted on the university campus; there have been several examples of trees coming up in the wild as a result of bird dispersal. One specimen was observed in the Maphotong Gorge. Widely known from many countries in Africa.

## THYMELAEACEAE

***Dais cotinifolia* L.****Status: DD**

Unlike *Morella serrata*, *Dais cotinifolia* has both a present and known past limited distribution close to Berea Mission, on escarpments northeast of Lesotho's capital. The one exception to this is a record by Scott-Shaw (1998) from Tsehlanyane (Lesotho sheet 15D, RSA sheet 2828CD). The species could have been introduced to Lesotho.

***Gnidia singularis* Hilliard****Status: DD**

Endemism: Endemic

There is a single record for this plant from the Lesotho side of the border in the Sani Top area (Arnold & De Wet 1993). It was assessed by Hilton-Taylor as Indeterminate.