Preface

Whomever visits Namibia for the first time will probably fall in love with its huge landscapes, its flora and fauna. For most people, animals have more to offer than plants. Apart from being beautiful or rare, they also move and act. Observing them is very often quite a challenge, and appeals to the adventurousness in us. Plants, by contrast, seem to be a lot less thrilling. Apparently, they have not so much to offer and only a few fanatics are really interested by them. Nowadays, there are numerous plants that are disappearing daily from the world through overcollecting, forest felling or desertification due to land misuse for agricultural purposes. Few people, however, seem to be aware of this. Everybody knows about famous cases of animals that became extinct. Plants attract somewhat less attention.

This same lack of awareness extends to the importance of plants for man’s survival. Since the beginning of mankind, people have been using plants for food, medicine, clothing and protection, cosmetics, fire-making, building and arts and crafts. The list of uses is endless. Some of these plants are now used universally, but a lot of them are only locally appreciated.

Ethnobotany tries to find out how people have traditionally used plants, for whatever purposes, and how they are still doing so. In other words, it tries to preserve valuable, traditional knowledge for both future generations and other communities. In a way, ethnobotanists want to prevent this knowledge from becoming extinct. It is their feeling that numerous plant species have properties that are very interesting, even unique, and often still unknown to science.

Bringing ethnobotany to the attention of the public at large can only increase the awareness that plants are indeed valuable and should therefore be protected and/or that scientific research about them should be increased. It also opens the debate about who actually owns this knowledge and who should use it. It seems obvious and logical that all men should both share and benefit from these plants' properties.
This book wishes to present the uses that Topnaar people make of the plants they find in their environment. As such, the Topnaar deserve a lot of attention and respect. They are probably living in one of the harshest environments in the world: the Namib desert. Through generations they have accumulated a vast know-how and wisdom enabling them to survive. As this book shows, plants are an important part of that survival strategy.

The vast majority of plants that are presented here, have never before been recorded as being used by the Topnaar people. Interest in the Topnaar has always been rather limited, and thus information about them rather scarce. In this respect, the authors feel this book is a valuable document because they fear that in the near future a number of these plants will disappear from the Topnaars’ ethnobotanic list and thus be lost from humanity forever. This loss seems inevitable because of the cultural changes all traditional communities are going through and because of the ecological changes that are occurring in their environments. These changes often result in the loss of endemics (plant species that are confined to one area) or other only locally important plant species.

Another feature of this book is the fact that both the present-day Topnaar communities of Namibia are presented here, i.e. the one living in the Kuiseb area and the other that resides in Sesfontein. These places are quite distant from one another, and are thus ecologically also quite distinct. This has led to large differences in plant use which we feel are interesting enough to be presented here.

We have tried to illustrate the text in such a way that the plant species that are discussed can be recognized in the field by the interested amateur. We have therefore accompanied most plant descriptions by either a line illustration or a colour picture so as to facilitate botanical identification.

The book has been written in English. It is, however, our feeling that the Topnaar communities in Namibia should also benefit from the information we were able to gather with them and from them. We have therefore added a summary in Nama and Afrikaans, highlighting the most important plants and plant uses. We hope this will be appreciated as an expression of our respect and friendship for them. We also hope they will see this as a sign that it is important to preserve this kind of knowledge and to build on it for future use and development.

Patrick Van Damme
A word of appreciation

The authors would like to thank the European Commission, which, through its DG VIII/A1 Sectorial Policies Division and its staff members has financed this research and its publication.

The same appreciative feelings are extended to the E.C. Delegation in Windhoek, Namibia.

Most of the results would not have been obtained without the interest and sympathy of our partners and the institutions in Namibia with which we co-operated: The University Centre for Studies in Namibia, the Desert Ecological Research Unit of Namibia, the Ministries of Wildlife, Conservation and Tourism and of Agriculture, Water and Rural Development and the National Herbarium of Windhoek. We wish to thank the staff of these institutions for all their support.

The field work was a real eye-opener. Ernst Boois and Lesley Mejiedt were our motivated guides and interpreters throughout the research period.

We are very grateful to Mr. W. Giess for his assistance in plant determination and Prof. W. Haacke and Mr. E. Eiseb for their help and advice with the Nama plant names. Many other people contributed in their way to this survey and everything they did was important. Many thanks therefore to Patricia Skyer, Oscar Dax, Gebhard Hendricks, Griet Pauwels, Lut Van Haut, Patrick Jacobs, Nick Snow and all others we might have forgotten.

Last but not least we would like to thank the Topnaar people who received us with great feeling. We dedicate this study to them and hope it will give outsiders a better understanding of who they are and how they live. Respect can only come through understanding!

Gent, December 1992
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Introduction

The Topnaar are the only inhabitants of the Namib desert. The name of this desert is derived from the Nama word for "endless expanse". The Namib is a long but narrow desert situated on the southwest coast of Africa and stretches from Mossamedes in Angola across the full length of Namibia to the mouth of the Olifants River in South Africa - a length of almost 2000 km. Its width varies from 90 to 120 km (see map 1). This desert is considered to be the oldest desert in the world. The climate of the area has been arid or semi-arid for at least the last 80 million years. During this long history, life has adapted to the harsh conditions. The result is a high percentage of endemism amongst plants and animals. The term endemic is used to describe species which occur only in one specific area.

Apart from two perennial rivers, the Kunene and Orange River, the Namib is crossed by several ephemeral rivers. Waterflow in these rivers is fairly rare and depends upon rainfall in their respective catchment areas. There is, however, a permanent subterranean waterflow, sufficient to maintain linear oases along the riverbed.

The Topnaar live along the Kuiseb river, one of these seasonal rivers, which forms the border between the northern stone desert and the southern sand dune sea. A second Topnaar community lives in Sesfontein, a village about 500 km north of the Kuiseb. Sesfontein is situated just outside the Namib, in the pro-Namib, the more humid area east of the Namib (see map 1).

From December 1991 to June 1992, an ethnobotanical survey was conducted in collaboration with the Topnaar. All Topnaar settlements of the Kuiseb area and Sesfontein were visited and all families interviewed. Special emphasis was placed on the older Topnaar, whose plant knowledge is the most extensive. For each plant mentioned, information on its use, the used parts and the preparation and processing method was collected. The plant specimens that could be collected in the field were identified by the authors. Because of extreme drought during this period, some plants could not be found in the field. Some of these could still be identified through literature research, relating them to the vernacular names and the plant descriptions given by the Topnaar. Others however remain unidentified to date.

Some people gave information on the use of non-plant material. This information is also included in this book.
1. The Topnaar

1.1 The Topnaar

The Topnaar people are a Khoi-Khoi race. "Clicks" are used in Namibian "alveolar click". They are widely dispersed in Namibia where they are one of San groups (see map 1).

The Nama are a Khoi-Koi race or 'those who are on the mountains'. They entered Sandwich Bay on map 1. The name =tAonin. Etymology are different explanation. The name "Nama" is an abbreviation of Namaqualand to the other tribes (see map 1).

The Topnaar tribe consists of a chief and also the people have it.

1.2 History

The Topnaar area not completely known. The area goes back to 1820, when the enter Sandwich Bay on map 1. The shore were recorded to be slightly different, first voyages of the Dutch East India Company.


1. The Topnaar People

1.1 The Topnaar Society

The Topnaar people belong to the Nama, who for their part, belong to the Khoi-Khoi race. The Khoi-Khoi were called Hottentots by the first European colonizers, probably because of their language Nama, a "click" language. The four clicks used in Nama are "dental click", "lateral click", "palatal click" and "alveolar click". The Khoi-Khoi, translated as 'men of men', were previously more widely dispersed in southern Africa. At present Khoi-Khoi tribes are only found in Namibia where they consist of 3 groups: the Nama, the Oorlam and a number of San groups (see table 1).

The Nama are divided into 9 tribes, two of which are the Topnaar of the lower Kuiseb valley and the Topnaar of Sesfontein. The two areas they live in are shown on map 1. The name Topnaar is of Dutch origin, meaning 'people of the upperland' or 'those who are on top'. This is probably a translation of the traditional Nama name =Aonin. Etymologically =Aonin is derived from =aob, meaning top. There are different explanations of the name =Aonin: 'people on the top', living in the mountains (Köhler, 1969); 'people standing on top of the Nama people', superior to the other tribes (Köhler, 1969); 'people living in a marginal area', on the edge of the Nama territory (Budack, 1977) or 'people inhabiting the sea coast' (Köhler, 1969).

The Topnaar tribe is divided into sibs (clans) and the tribal government consists of a chief and his council. In the past the leadership was inheritable, but now also the people have a say in the elections of a new chief.

1.2 History

The Topnaar are among the oldest inhabitants of Namibia. Their history is not completely known. The earliest recorded presence of Topnaar in the Walvisbay area goes back to 1670 when the Dutch East India Company's ship, Grundel, first entered Sandwich Harbour, just south of Walvisbay (see map 2). The natives on the shore were recognized as Hottentots by the crew, but their language was noted to be slightly different to that of the Cape Hottentots (who were known from the first voyages of the Dutch East India Company to South Africa). At that time the Kuiseb still reached the sea at Sandwich Harbour. Seven years later, in 1677, the Dutch East India Company vessel Boode visited Sandwich Harbour and met
Hottentots, which were herding cattle and collecting inara seeds. In 1973, Dr. Beatrice Sandelowsky discovered near Conception Bay (see map 2) some fragments of a Khoi clay pot, which were dated approximately 650 years back. This probably means that Khoi-Khoin were already living along the Namibian coast in the 14th century. It is not sure, however, whether these people were Topnaar people or belonged to another tribe.

According to oral tradition, the Topnaar came from the north prior to occupying the Walvisbay territory. The exact area were they came from was however not further specified.

The Topnaar were among the first traders in Namibia. As early as 1677 they bartered with European sailors beef, goats, milk, inara and fresh water in exchange for general supplies, clothes, weapons and alcohol.

A long time ago, the Topnaars' territory was more extensive and reached from the coast, eastwards along the lower Kuiseb as far as Hu-daob, and from Conception Bay in the south northwards to the Swakop river (Budack, 1977; Köhler, 1969; see map 2). They were driven from part of this area by the Herero migrating from the north and other Nama people migrating from the south.

There exist different opinions about how some Topnaar people migrated to Sesfontein, about 500 km north of the Kuiseb in the Kaokoveld. Hoernlé (1925) says the Topnaar told her that some of them returned to the north after having settled in the Walvisbay area. Other sources (Köhler 1969; Kooitjie, personal comment) say that in the 1880's, during the wars between the Nama and Herero, a group of Topnaar joined Jan Jonker Afrikaner, headman of the Afrikaners, to fight the Herero, and thereafter remained in the north, in a place called Am-eib. Forced by drought they moved afterwards to Sesfontein, where at that moment already lived some other African tribes, Bushmen and Bergdama. Another group of Nama people, the Swartboois, followed them later.

1.3 Way of Life in the Lower Kuiseb Valley

The Topnaar of the lower Kuiseb valley traditionally live by herding cattle, gardening, and gathering the inara (Acanthus cytos horridus). The latter is a cucurbit which grows in the wild. It is endemic to the coast of Namibia and provides food and water to the Topnaar. The Topnaar are therefore also called inaranin, people living off the inara. This however is a derogatory name to them as it stresses their dependency on “veldkos” (literally food from the field, referring to the use of indigenous edible plants) near Walvisbay. Every inara, they grow, are private, and every family has their own field. If the parents die, the children can only harvest from the fields their parents farmed. The children are then free to choose another field in the inara. The children on the other hand are not allowed to harvest the fields and remain the rights to the family in the villages to a certain extent.

In the past, the Topnaar were more hunter-gatherers and lived more inland along the riverbeds, where they have fused. In the past the Ovambo, Damara and Tsumeb people lived on the riverbeds to a large area of the Naukluft mountain range.

The Khoi-Khoin however, is restricted to coastal herding, and depend on the water influence on their territory. The large area of the Namib has been important for hunting and probably fishing, but not of the riverbed. Following this plan was to move from the Kuiseb (now Namibia) to the north, in Namaland, to the Naukluft mountain range, they claim as their territory for several centuries. The Namib-Naukluft Park was established with the use of its food resources.

For years the people of dispute between the Namibian and the South African Topnaar people. A new agreement was signed in the development of the Water Affairs imp...
In 1973, Dr. Hönnke [21] found some fragments of rock carvings in the area. This probably indicates the presence of a Khoikhoi people in the 14th century. The Topnaar people were probably of Khoikhoi origin.

In the 17th century, the Topnaar fiercely resisted the arrival of the European colonists, and prior to occupying their own grazing lands, they were however not able to prevent them. By the 18th century, the Topnaar had been forced to move away from the sea coast into the interior, and reached the Namib-Naukluft Park. Here and there, they continued to live as hunter-gatherers and fishermen, but also as farmers and herders. Another group of people migrated to the Namib-Naukluft Park, the Khoi-Khoi, who at that moment were called Am-eib. They were the descendants of the people who migrated into the area after the arrival of the Afrikaners, to live in the coastal area, and to farm the land. These people were called Topnaar, which is derived from the word tanaa, meaning water in exchange for meat. They also provided food in the form of indigenous edible plants for food. The !nara grows abundantly in the sand dunes near Walvis Bay. Each family possesses a number of !nara bushes. In this the Topnaar differ from the other Khoi-Khoi: the !nara bushes, not the land on which they grow, are private property, whereas normally possessions are common. This perpetual right to the !nara was approved by Queen Victoria herself. Each family can only harvest from its own !nara bushes. The property rights are hereditary. If the parents die, the !nara field is divided over the children that are interested in the !nara. The chief and his council may rule in disputes if necessary. During the harvesting season of the !nara, whole families move down to the coastal !nara fields and remain there until the end of the harvest. Only a few people stay behind in the villages to attend livestock.

In the past, the Topnaar of the Kuiseb area were split up into Huirinin, the hunter-gatherers and fishermen living along the coast, and !Maranin, those living more inland along the Kuiseb river. The latter were the dominant group. Now they have fused. Furthermore these Topnaar have also fused with some Herero, Ovambo, Damara and Eurafrikaners living in the same area.

The Khoi-Khoi are traditionally nomadic. The Kuiseb Topnaar's mobility, however, is restricted by the environmental conditions of the area: the people depend on the waterholes in the riverbed and the !nara fields. Another drastic influence on their mobility and way of living is the fact that in 1907 a large area of the Namib desert was declared a National Park. This ruling prevents hunting and prohibits the herding of livestock or any other activity outside the riverbed. Following implementation of the South African Odendaalplan (the aim of this plan was to return all black people in South Africa and South West Africa (now Namibia) to their respective homelands), some farms were purchased further south, in Namaland, with the intention to move and resettle the Topnaar outside the Namib-Naukluft park. They refused, however, to leave their territory, which they claim as their traditional tribal area as they have already occupied it for several centuries. Their culture is linked to the !nara and they depend on the sea and its food resources. There also exist legal treaties respecting their traditional rights to the use of the !nara plants.

For years the presence of the Topnaar in the Namib-Naukluft park was a topic of dispute between the Ministry of Wildlife, Conservation and Tourism and the Topnaar people. A result of this was that under South African rule, few investments in the development of the area were made. Only in 1979 did the Department of Water Affairs improve the water supply in the villages by building windpumps.
dams, pipelines and watertaps.

The first known chief of the Kuiseb Topnaar was Frederik Khaxab (mid 19th century). After his death Piet Eibib became chief of the Topnaar. When he died in 1910, leaving no son, two fractions struggled for the leadership, but without result. For 66 years the Topnaar had no leader. This resulted in the loss of some of their traditions, culture and tribal unity. Only in 1976, when Namibian independence became a possibility, did the need for a Topnaar spokesman at national level emerge. A new leader, chief Esau Kooitjie was nominated. On his retirement in 1981, his 18 year old son Seth Kooitjie was elected his successor. Since then the Topnaar have again had someone to represent them and promote their interests on a national level.

At the time of this research about 400 Topnaar lived along the Kuiseb river, divided over 12 semi-permanent settlements, all located on the northern bank of the river, far enough from the river so that the occasional floods will not destroy the houses. The villages, from east to west, are Homeb, Oswater, Natab, Gobabeb, Soutrivier, Klipneus, Swartbank, Eduseb, Ururas, Goatanab, Dawe-draais and Armstraat (see map 2). The 4 last villages belong to the Walvisbay-enclave (still belonging to the Republic of South Africa). One to ten families reside in each village. Another 400 Topnaar live in Walvisbay.

1.4 Way of Life in Sesfontein

The Topnaar of Sesfontein are also called Gomen, “stupid people”, speaking a strange, unintelligible dialect (KÖHLER, 1969). In 1906, the farm Sesfontein, so called because of the six perennial springs issuing in the area, was granted to the Topnaar and Swartboois by the German Government. Due to these springs, which provide water to this area, irrigated agriculture is possible in Sesfontein. Every male inhabitant owns a part of the irrigated fields. The major crops are wheat, corn and tobacco. Gathering of wild food plants is still important to these people as well as some goat farming.

About 100 Topnaar presently live in Sesfontein. The earliest chief the Sesfontein Topnaar can remember was Uichah. Under him they still lived in the south. Only during the leadership of his son, Anibab Hendrik Uichamab, did the Topnaar actually come to Sesfontein.
### A. NAMA

<table>
<thead>
<tr>
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<th>European name</th>
<th>Tribal centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gai-khaun</td>
<td>Red Nation</td>
<td>Hoachanas</td>
</tr>
<tr>
<td>2</td>
<td>!Gami=nún</td>
<td>Bondelswarts</td>
<td>Warmbaths</td>
</tr>
<tr>
<td>3</td>
<td>!Aoin</td>
<td>Southern Topnaar</td>
<td>Rooibank</td>
</tr>
<tr>
<td>4</td>
<td>!Gomen</td>
<td>Northern Topnaar</td>
<td>Sesfontein</td>
</tr>
<tr>
<td>5</td>
<td>!Khara-khoen</td>
<td>Simon Kopers</td>
<td>Gochas</td>
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<td>6</td>
<td>!Haboben</td>
<td>Velskoendraers</td>
<td>Koës</td>
</tr>
<tr>
<td>7</td>
<td>!O-gain*</td>
<td>Groot Doden</td>
<td>Schlip</td>
</tr>
<tr>
<td>8</td>
<td>!Khau-Igöan</td>
<td>Swartboois</td>
<td>Franzfontein</td>
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<tr>
<td>9</td>
<td>Kharo-loan</td>
<td>Keetmanshopers</td>
<td>Keetmanshoop</td>
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### B. "OORLAM" TRIBES

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<td>!Aman</td>
<td>Bethaniers</td>
<td>Bethanien</td>
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<tr>
<td>11</td>
<td>Gai-khaun*</td>
<td>Amraal Lamberts</td>
<td>Naosanabes</td>
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<td>12</td>
<td>Hai-khaun</td>
<td>Berseba people</td>
<td>Berseba</td>
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<tr>
<td>13</td>
<td>!Höa-laran*</td>
<td>Afrikaners</td>
<td>Windhoek</td>
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<td>14</td>
<td>!Khobesen</td>
<td>Witboois</td>
<td>Gibeon</td>
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### C. SÁN GROUPS

<table>
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<th>European name</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Nami-sán*</td>
<td>Namib Bushmen</td>
<td>Southern Namib desert</td>
</tr>
<tr>
<td>16</td>
<td>Kai-omn</td>
<td>Keikum Bushmen</td>
<td>Outjo &amp; Tsumeb districts, Etosha Pan area, Owambo</td>
</tr>
<tr>
<td>17</td>
<td>Naron (!Ai-khoen)</td>
<td>Naron Bushmen</td>
<td>Ghanzi &amp; Gobabis districts</td>
</tr>
<tr>
<td>18</td>
<td>Koe (Kwengo)</td>
<td>Black Bushmen</td>
<td>Kavango, western Caprivi</td>
</tr>
</tbody>
</table>

* Tribes marked with an asterisk have nearly died out.

Table 1: The structure and localisation of the Khoi-khoi (Hottentots) in Namibia
Map 2: The Topnaar villages of the Kuiseb Valley
2. The Topnaar of the Kuiseb valley

Figure 1: Oasis along the Kuiseb river, bysecting the Namib desert
2.1 Natural Environment

The residential area of the Topnaar of the Kuiseb valley is limited to a number of settlements in the lowest part of the Kuiseb. Communities are situated along the linear oasis which is the Kuiseb's riverbed. South of the river the sand sea of the Southern Namib extends towards Lüderitz. North of the river the gravel plain of the Central Namib, strewn with a number of mountains, extends towards the Ugab.

2.1.1 Climate

The climate of the Namib is characterized by a low and very variable rainfall, an evaporation that exceeds precipitation, high insolation, cool to extremely high temperatures and the frequent occurrence of fog and stratus clouds.

The climate is strongly influenced by the Benguela Current, a branch of the Westerly Wind Drift Current. The Benguela Current flows northwards along the south-west coast of Africa. Along the western margin of the Benguela Current part of the surface water flows westwards into the Atlantic Ocean and is replaced by upwelling cold bottom water from the Antarctic Intermediate Current. The result is a mass of cold water along the coast with a mean annual sea temperature of about 15°C. This current of cold water is one of the major reasons for the aridity of the Namib. The anticyclone of the south Atlantic Ocean causes movement of warm air towards the west coast of Southern Africa. There it comes in contact with the cooled air above the Benguela Current resulting in condensation of moisture, producing fog. Inland, strong insolation results in low pressure cells, producing sea-breezes. As the cool, moist air comes inland it is warmed and relative humidity decreases. During the night when the temperature inland drops dramatically a reverse situation is created: dry, cool land-breezes predominate. The overall result is a nearly continuous high relative humidity along the coast and inland a decreasing relative humidity with increasing distance from the sea.

Fog and low stratus clouds are very common and extend sometimes more than 50 km inland. The condensation of the water, originating from fog and low stratus clouds, on plants is the most important water source for these plants in the coastal belt and on the mountain ranges up to about 50 km from the coast.

Precipitation by rain is very low. The reason is that due to the cool ocean water a strong, stable temperature inversion is created (immediately above the surface a layer of cool air is formed due to the cooling effect of the ocean water; above this layer the air has the same temperature). The temperature decreases with increasing distance from the South Atlantic. Moist air is warm. With distance from the South Atlantic the temperature of the water holding this moist air is warmed and fog cannot occur in such a situation. With increasing distance inland, the amount of moisture along this gradient is limited.

Temperatures are strongly influenced by the influence of stratus clouds. Inland, with distance from the central plateau coast. As a result of adding or reducing (the dreaded "east"

The full establishment of the upwelling system in the development of level of the riverbed course was only possible in the northern half of the lower Kuiseb shifting towards Walvisbay. This dis encroachment of the course was only possible rather in a broad vs.

2.1.2 Geography

In the Kuiseb a large catchment area is recognized:

2.1.2.1 River V: The Kuiseb is the main...
limited to a number of layers are situated along the sand sea of gravel plains extends towards the south. The result of the circulation of moisture, producing fog and low stratus clouds.

Temperatures along the coast are cool and show little diurnal variation, due to the influence of the cold sea water and the frequent occurrence of fog and/or stratus clouds. Inland, maximum temperatures increase (up to more than 40°C) with distance from the sea. Sometimes a strong warm anticyclone is situated on the central plateau of Southern Africa. This air mass can then descend towards the coast. As a result of increased atmospheric pressure, adiabatic heating (without adding or reducing heat) occurs and results in strong, extremely hot and dry winds (the dreaded "east" or "berg winds").

The full establishment of the Benguela Current and its associated cold water upwelling system in the Late Miocene (somewhat over 5 million years ago) promoted the development of the current Namib Desert Regime. During the Quaternary, the level of the riverbed of the Kuiseb varied a lot, depending on the climatic conditions; the course of the Kuiseb also changed. In the beginning of the Quaternary, the Kuiseb course extended from the Klein Klipneus/Klipneus area westwards to the northern half of Sandwich Bay. Later on during the Quaternary the course of the lower Kuiseb shifted towards the north. Subsequently, a delta was formed, south of Walvis Bay. This displacement may have been caused primarily by the northward encroachment of dunes from the main Namib sand sea. The shift in the lower course was only possible because here the Kuiseb did not flow in a canyon but rather in a broad valley with low banks.

2.1.2 Geography and Geology

In the Kuiseb area, the following geographical and geological entities can be recognized:

2.1.2.1 River Valley of the Kuiseb

The Kuiseb is the largest and most important river of the Central Namib. It has a large catchment area (14,700 km²) which extends for a great deal over the
The Topnaar of the Kuiseb valley

The Topnaar of the Kuiseb valley, a zone with an annual rainfall of about 300 mm. Its source can be found near Windhoek. About 230 km downstream it leaves Khomas Hochland and enters a canyon that is about 130 km long. Nearly every year floods pass through the narrow canyon. Near Homeb the depth of the canyon decreases while the riverbed widens. About 50 km downstream from Homeb, the riverbed is more than 1.5 km wide.

Downstream from Rooibank, at about 27 km from the coast, a bifurcation of the riverbed is caused by a granite outcrop. The southern branch goes westerly towards the sea. The subterranean waterflow, however, is still sufficient to support plant growth. Large parts of this area form the main inara fields, used by the Kuiseb Topnaar. The northern arm once formed a very wide delta which reached the ocean at Walvisbay Lagoon. Since 1837 the river has reached the coast only 15 times. Due to the building of a 7.3 km long flood retaining dam in the early sixties to protect Walvisbay, no superficial water can now enter this northern arm. As the dam is built on a granite subsoil, also the subterranean water flow is blocked. This has resulted in a steady deterioration of the vegetation, including the inara fields in this area over the last 3 decades.

The Kuiseb forms the northern border of the Southern Namib dune sea. A study of the wind regime and its related sand dune movement has revealed that to the west of Rooibank there is a high-energy, dominantly SSW wind regime while inland from Rooibank a low to intermediate energy, complex wind regime occurs. Generally a SSW to SW wind predominates in summer, while during winter, east winds that have a high velocity but low frequency occur. This results in the net movement of dune sand in a NNE – NE direction into the Kuiseb. The greatest rates of movement are measured west of Rooibank. Between Rooibank and Swartbank the movement is limited by both large stands of Stipagrostis sabulicola (Pilger) De Winter (Poaceae) and the wind regime.

The occasional flooding of the Kuiseb is probably the most important factor in checking the migration of the dunes. The floods transport huge amounts of silt and sand from both upstream and the dunes that have moved into the riverbed. However, due to evaporation, lower rainfall, drainage through the soil of the riverbed and the smaller gradient of the river, the energy and quantity of flood water decreases towards the coast. As a result, floods usually end somewhere in the lower Kuiseb.

The effect of the Sand, blown into the dunes from crossing the Central Namib Hochland and other parts of the valley, the subterranean waterflow on the riverbed by tree wash away virtually.

The drought conditions and the coastal factors have reduced the northern arm to cross the Kuiseb.

In the eastern plateau Precambrium (late Precambrium) the most abundant parts of the Kuiseb were covered with recent formations (Tertiary and Quaternary).

2.1.2.2 Gravel

The gravel plain of the Kuiseb (alt. 800–900 m) and in the west (Witpoortberge). On which some water is stored and which is drained into the Kuiseb.

As in the Kuiseb gravel, etc....

2.1.2.3 Coastal

In the Walvisbay the Kuiseb there is...
The effect of these floods is of considerable importance for the ecosystem. Sand, blown into the riverbed from the dunes, is scoured away, preventing the dunes from crossing the Kuiseb and advancing northwards onto the gravel plain of the Central Namib. A large amount of fruit and seed material coming from Khomas Hochland and other areas are transported, germinate and thus enrich the flora of the valley. The subterranean water supply, which maintains the riverine woodland on the riverbanks, is replenished. On the other hand, the colonization of the riverbed by trees and other perennials is restricted because floods uproot and wash away virtually all plants hit by the stream of water.

The drought conditions that have been in existence since the beginning of the eighties, and the construction of many farm dams on the tributaries of the Kuiseb have reduced the number and the strength of floods considerably. Together with the dominant high-energy SSW-SW winds, this allows the Southern Namib sand sea to cross the Kuiseb west of Rooibank.

In the eastern part of the Kuiseb area the Kuiseb formation (Damara sequence, late Precambrium) is the main exposed lithographic unit. In this area schists are the most abundant geological formation (e.g. Khomas Hochland, Kuiseb Canyon). Parts of the Kuiseb formation (especially in the western part of the Kuiseb area) are covered with recent layers of sand, gravel, calcrete and alluvium of the Cenozoic (Tertiary and Quaternary).

2.1.2.2 Gravel Plain of the Central Namib

The gravel plain of the Central Namib covers a vast area north of the Kuiseb. The altitude of the plain gradually increases from the coast towards the east (up to 800-900 m) and in several places granite mountains (inselbergs or bornhardts) occur. In the west there exists a calcrete mountain range (Swartbankberg-Hamiltonberge-Witpoortberge). On the plain itself numerous washes form small depressions in which some water accumulates after a rain shower, sufficient to maintain a vegetation different from that which occurs on the rest of the plain.

As in the Kuiseb area, the gravel plain is covered by Cenozoic layers of sand, gravel, etc...
Walvisbay Lagoon towards the border with Namibia. The soil contains mainly sand and silt and a high amount of salt. Due to its low altitude (just above sea level) and its short distance from the sea, sea water seeps into the soil, and in several places salt crusts appear.

2.1.2.4 Inselbergs

Inselbergs were formed by magmatic intrusions in the Cambrium, which were sometimes later transected by dolomite dykes. These granite rocks, which can surface due to erosion of the surrounding (softer) material, contain, due to their morphology, a large number of habitats for plants, in crevices, gullies, depressions, cracks and at the foot of these inselbergs. Some inselbergs (e.g. Vogelfederberg) receive a considerable amount of water through fog.

2.1.2.5 Swartbankberg

This mountain belongs to a range of calcrete mountains extending northwards from the Kuiseb and crossing the Swakop (Swartbankberg, Hamilton Range or Hamiltonberge and the Witpoortberge). This entity belongs to the Karibib formation (Damara sequence, late Precambrian). Their calcium ion rich conditions, together with their height which allows the interception of fog, offers a quite different vegetation in comparison with neighbouring inselbergs (e.g. Aloe asperifolia A. Berger is a typical plant for these mountains).

2.1.2.6 Sand Sea of the Southern Namib

This dune area extends from the Kuiseb, southwards to Lüderitz.

Along the coast, between Sandwich Bay and Walvisbay plants of Salsola nolothensis Aellen trap windblown sand. This is the first stage in the formation of the typical coastal dunes. These dunes can reach heights of more than 10 m.

The sand sea of the Southern Namib as well as the coastal dunes were formed largely during the Quaternary. In some dune valleys older formations (mainly Tertiary) can be found: calcrete and red, partially consolidated, dune deposits. Only at a few places do intrusive rocks, of various ages, surface.

2.1.3 Vegetation

The variation of a number of very distinctive plant communities.

2.1.3.1 River V...

The riverine corridor of the Eastern Karoo and Central Namib biomes. It is also the rainbelt of the Namib Desert.

In the riverbed, the amount of water varies between a few millimetres and a few centimetres, depending on the rainfall. The number of years it takes for the river to flow is determined by the length of the dry season. The flow of the river is influenced by the amount of water available from the surrounding areas.

1. Flood:
   - Affluents of the river can be submerged.
   - The point where the river meets the sea is a typical spot for breeding colonies of the Southern Right Whale.
   - Duration of the flood and available water.

2. Riverbed:
   - The water is shallow and can be walked through.
   - Availability of water.

3. Grazing:
   - The game at grazing areas influenced by the river.
contains mainly sand 1st above sea level) soil, and in several

...rium, which were

...ks, which can sur-

...due to their mor-

...illies, depressions.

...g. Vogelfederberg

ending northwards

...Hamilton Range or

...the Karibib forma-

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...tions, offers a quite dif-

...e.g. Aloe asperifolia

...nderitz.

...amounts of Salsola not-

...in the formation of

...more than 10 m.

...dunes were formed

...formations (mainly

...dune deposits.

...r...
The number of species occurring decreases towards the coast due to the smaller number of floods. The vegetation in the riverbed near Topnaar villages is very poor due to overgrazing.

The vegetation on and immediately above the flood mark is characterized by *Nicotiana glauca* Graham (an alien) and *Acacia albida* Del. At some places *Cladophrasis spinosa* (L.F.) S.M.Philips is very abundant. *Pechuel-Loeschea leubnitziae* (O. Kuntze) O. Hoffm. is a regular companion in this community together with *Tribulus zeyheri* Sonder, *Sutera maxii* Hiern and *Adenolobus garipensis* (E.Meyer) Torre & Hillcoat. Downstream from Soutrivier *Pechuel-Loeschea leubnitziae* (O. Kuntze) O. Hoffm. forms dense stands.

Further away from the riverbed *Acacia albida* Del. becomes the dominant species within the plant community, sometimes together with *Tamarix usneoides* E.Meyer ex Bunge and *Acacia erioloba* E.Meyer. Under the tree layer *Pechuel-Loeschea leubnitziae* (O. Kuntze) O. Hoffm. is the most abundant species. In some places, a single *Euclea pseudobovenius* E. Meyer ex A.DC can be found.

Higher up, the plant community consists mainly of *Acacia erioloba* E.Meyer and some *Acacia albida* Del. together with thick stands of *Salvadora persica* L. *Tamarix usneoides* E.Meyer ex Bunge is a regular companion. Towards the dunes the hummock forming grass *Stipagrostis sabulicola* (Pilger) De Winter, sometimes together with *Salvadora persica* L., becomes dominant.

The Kuiseb delta is an important biotope as it includes the greater part of the *Inara* fields. The delta can be divided in the southern and northern Kuiseb arm. The main *Inara* fields are situated in the southern Kuiseb arm. *Acanthosicyos horridus* Weil. ex Bentham & Hook. f. forms large hummocks. Together with *Stipagrostis sabulicola* (Pilger) De Winter, *Tamarix usneoides* E.Meyer ex Bunge is characteristic for this area. In some places *Acacia erioloba* E.Meyer is a creeping bush and due to this, contributes to the formation of hummocks. The northern Kuiseb arm is separated from the Kuiseb river by a dam. The vegetation is composed of the same species as the southern part, but is generally in a very bad condition. Because no water can enter this area, *Inara* fields are dying and have been abandoned by the Topnaar. In this area *Capparis hereroensis* Schinz and *Aizoanthemum dinteri* (Schinz) Friedrich occasionally occur.

2.1.3.2 Gravel

This large, flat shortly after a rain grasses. The gitation through fog while *Arthraeraea lei* *Asclepias buchenaw* to the east, both the vegetation is limited nity dominated by g As a result, the nur *Acacia reficent* Wa and *Boscia foetida* s

2.1.3.3 Coastal

This coastal pla and the northern Ki *tralis* (Cav.) Steu
The Topnaar of the Kuiseb valley

...due to the smaller villages is very poor... At some places *Pechuel-Loeschea* and *Adenolobus* dominate in this community. *Pechuel-Loeschea* and *Adenolobus* are the dominant species. In some places the dominant *Tamarix usneoides* tree layer *Pechuel-Loeschea* and *Adenolobus* can be found.

...can be found.

2.1.3.2 Gravel Plain of the Central Namib

This large, flat area is almost totally devoid of plants for long periods of time. Shortly after a rain shower, however, it may change into a green carpet of mainly grasses. The genus *Stipagrostis* is well represented. Most of the perennial vegetation lives in washes and small depressions.

Due to the influence of climatic factors the vegetation changes with distance from the sea. The gravel plain which is closest to the sea, receives a lot of precipitation through fog but very little through rain. Stones are covered with lichens while *Arthraerua leubnitziae* (Kuntze) Schinz, *Zygophyllum stapfii* Schinz, and *Asclepias buchenaviana* Schinz grow in small depressions. In a zone immediately to the east, both the precipitation due to fog and rain is very low. Some perennial vegetation is limited to small washes. After a rain shower, however, a plant community dominated by grasses appears. Further east, the amount of rainfall increases. As a result, the number of species and their coverage increases. Some trees, e.g. *Acacia reficiens* Wawra, *Acacia erioloba* E.Meyer, *Parkinsonia africana* Sonder and *Boscia foetida* Schinz subsp. *foetida*, grow in washes.

2.1.3.3 Coastal Plain, South of Walvisbay

This coastal plain, called Dorob, is a wet depression between the coastal dunes and the northern Kuiseb arm. Here vegetation consists mainly of *Phragmites australis* (Cav.) Steudel, *Odyssea paucinervis* (Nees) Stapf and *Salsola nolothren-
sis Arab. *Tamarix usneoides* E. Meyer ex Bunge, *Suaeda* sp. and *Lycium cinereum* Trinb. are widely distributed and sometimes form monospecific stands.

### 2.1.3.4 Inselbergs

The Vogelfederberg is a small granite outcrop, about 55 km north of Gobabeb. It consists of two hills, up to 527 m in height. The smooth surface of the hills is devoid of any plant growth, except for some vegetation that occurs in crevices, gullies and depressions. Around the hills a plant community, consisting of numerous species can develop due to run off water. *Aloe asperifolia* A. Berger is quite abundant here.

Mirabib is a small granite inselberg, 840 m high, WNW of Gobabeb. Plant communities are found in its small crevices, gullies and depressions and on the fringe of the mountain. *Mesembryanthemum guericchianum* PAX is quite an abundant plant on the mountain.

Southeast from the Mirabib there is a complex of small granite hills which belong to the same geological entity. In these hills a plant community consisting mainly of *Sarcocaulon marlothii* Engl. persists.

### 2.1.3.5 Swartbankberg and Hamilton Range

The Swartbankberg (464 m) and the Hamilton Range (549 m) form a linear series of outcrops, consisting of limestone, intruded by dolomite dykes. Due to their height a lot of fog is trapped. This results in a relatively well developed vegetation, in sharp contrast to the surrounding gravel plain. Plants grow in crevices and cracks where run off water can collect. Exposed rocks are nearly completely devoid of vegetation. *Aloe asperifolia* A. Berger, *Trichocaltont pedicellatum* Schinz, *Sesuvium sesuvioides* (Fenzl.) Verdc. and *Hereroa putikamerana* (Dinter & Berger) Dinter & Schwantes are found exclusively in the mountain’s cracks and crevices.


A few kilometers southwest from the mountain *Euphorbia lignosa* Marloth is quite common on a small calcrite hill (belonging to the same geological entity), near the Kuiseb (South) plains around the mountain.

### 2.1.3.6 Dunes

The sand dune stability of the loose insolation (both related to these conditions water storing or red the water table or s examples of adapt results in the forma

The dunes on t and Sandwich Bay (*Tamarix usneoides*).

Most of the dur places does *Stipagr

**ricus** Weilw. ex E

In the in the Kuiseb river *Ta*

In the dunes be **licola** (Pilger) De & Hook. f. are q especia

**Trianthec** *Zygophyllum stapfi**

### 2.2 Plants in th

The Topnaar ar great part of their k depended complete much weaker with t
near the Kuiseb (Swartbank). *Citrullus ecirrhosus* Cogn. is quite common on the plains around the mountain.

### 2.1.3.6 Dunes

The sand dunes pose serious problems for the establishment of plants: instability of the loose sandy soil, low precipitation, high temperatures and high insolation (both resulting in huge evaporation). Most perennials show adaptations to these conditions through xeromorphy (reduction of the exposed leaf area: rolled, water storing or reduced leaves). The development of long taproots which can reach the water table or superficial roots extending over a relatively large area are other examples of adaptations. Most dune plants immobilize the moving sand which results in the formation of large hummocks.

The dunes on the salty plain along the coast between the lagoon of Walvis Bay and Sandwich Bay are mainly covered by *Salisola nolothensis* Aellen. More inland *Tamarix usneoides* E. Meyer ex Bunge covers whole dunes.

Most of the dunes south of the Kuiseb, are almost unvegeted: only in some places does *Stipagrostis sabulicola* (Pilger) De Winter and *Acanthosicyos horridus* Weil. ex Bentham & Hook. f. form large stands on the lower faces of dunes. In the interdunal depressions grasses occur. On the slipfaces towards the Kuiseb river *Tamarix usneoides* E. Meyer ex Bunge and *Salvadora persica* L. cope with the moving sand.

In the dunes between Dorob and the northern Kuiseb arm, *Stipagrostis sabulicola* (Pilger) De Winter and *Acanthosicyos horridus* Weil. ex Bentham & Hook. f. are quite abundant, together with *Zygophyllum simplex* L. and especially *TriantHEMA hereroensis* Schinz. In the depressions between the dunes *Zygophyllum stapfii* Schinz and *Arthraera leubnitziae* (Kuntze) Schinz appear.

### 2.2 Plants in the Kuiseb Topnaar Culture

The Topnaar are much influenced by the Western way of living. Due to this, a great part of their knowledge of plant uses is now lost. Whereas in the past they depended completely on the natural environment, this dependency has become much weaker with time.
The Topnaar of the lower Kuiseb river use one important wild food plant, the 'nara (Acanthosicyos horridus). In the past this wild cucurbit was their staple food. Now corn has taken over this position, but the 'nara still forms an important part of the Topnaars’ diet. Available during 5 months of the year, the fresh 'nara fruit is processed in such way that it can be stored for up to several years. Other food plants, besides some less important edible fruits, are short in this area.

The majority of the plants are used for medicinal purposes, even though a mobile clinic visits all villages once a month and provides the local population with medicines. Plant parts are used fresh or a decoction in water is made. The use of medicinal plants depends upon the availability of plants in the environment, the beliefs of the people, their ideas about plants, the way animals use plants, etc. It is generally known that all indigenous people look for the plants they need in the surrounding environment, to fulfill certain needs. Despite the harsh Namib environment and the scarce vegetation, also the Topnaar find medicines for all ailments.

Several plant roots are used to curdle milk in order to increase the conservation time of the milk. Also many wild herbs are used for herbal teas or as food flavouring.

Women are known to use yet other plants to manufacture cosmetics: perfume, body powder, lotion, and the like.

Wood is not much used as a building material since garbage material is more highly prized.

Fuel is obtained from the trees found along the Kuiseb riverbed. The floods in the Kuiseb carry much dead wood and often uproot whole trees.

Witchcraft has completely disappeared due to the influence of missionaries for more than a century.

Plants are no longer used for fibres, dyes, tannins, etc.

Fodder for goats and cattle is reasonably abundant. Acacia pods and several herbs and shrubs form the core of the livestock’s diet.

2.3 Plant Uses

The plants can be vascular, more prir or non-vascular, more primitive. Following the scientific author, is mentioned at the herbarium of the common names. Each plant is briefly described, and plant uses by the Topnaar people, as found in the literature list.

2.3.1 Nonvascular

Ecklonia maxima
Nama huri b
The botanical name, who collected the specimen, grows up to 7 m long on the coasts of southern Namibia and becomes hollow and only found where the sea is calm.

The stem of this seaweed is obtained (mixed with lime) and prevents infection among the Topnaar.

Battarea sp.
Nama 'lôasâb
This light brown plant grows approximately 1 m high and has a dull powdery appearance. It has been conclusively identified as Battarea guicciardini.
2.3 Plant Uses

The plants catalogued below are arranged by family in alphabetic order. Nonvascular, more primitive plant families are listed before the vascular plant families. Following the scientific plant name, the herbarium specimen, collected by the author, is mentioned (VdE is the abbreviation of Van den Eynden). All specimens are deposited at the National Herbarium of Namibia and duplicates are deposited at the herbarium of the DERUN. If existing, a Nama name is given, as well as the common names in English (E) and/or Afrikaans (A) as found in the literature. Each plant is briefly described and its distribution in the Kuiseb area is given. All plant uses by the Topnaar are mentioned as well as uses in other areas or by other people, as found in the literature (all consulted books and articles are mentioned in the literature list). Botanical terms are explained in the glossary.

2.3.1 Nonvascular Plants

Alariaceae

_Ecklonia maxima_ (Osbeck) Papenfuss

_Nama_ hunā hab, hunā hab, gamigûib

The botanical name _Ecklonia_ is derived from Ecklon (1795-1868), a pharmacist, who collected many plants in the Cape Colony. This marine plant, which can grow up to 7 m long, has a dense cluster of flat pinnae (leaves) and is found on the coasts of southern Namibia and South Africa. When mature the stipe (stem) becomes hollow and the terminal part forms a large float. This marine plant is only found where the sea water temperature does not exceed 15° C.

The stem of this seaweed is roasted and ground. The powder that is thus obtained (mixed with vaseline) is rubbed on wounds and burns. This treatment prevents infection and accelerates healing.

**Basidiomycetes**

_Battarea sp._

_Nama_ !ôasâb

This light brown fungus is found on the banks of the lower Kuiseb river. It grows approximately 25 cm high, has a cap of 8 cm in diameter and exhibits a dull powdery appearance. Due to insufficient research, this fungus has not yet been conclusively identified. According to a preliminary study however, it may be _Battarea quiettardiniana_ Cés (K.M. Jacobson, personal comment).
The spores are rubbed on burns to reduce the pain and hasten healing. They are also rubbed on rough spots of the body. Spores (mixed with fat or !nara oil or a red ground stone called !nau) are used as a cosmetic. It also protects the skin from sunburn and drying out.

Pisani (1983) says the mixture of Battarea spores and fat is also rubbed on infected udders of cows and ewes.

Figure 3: Battarea sp.

Lichenes

Parmelia hottentotta (Thunb.) Ach.

Nama | lu\|i\| khaob

A lichen is a fungus living in symbiosis with algae. Many lichens are found in the fog area of the Namib desert. Parmelia hottentotta has a grey-green thallus up to 4 cm high and grows on the Swartbankberg. Although several lichen species are used by the Topnaar people, Parmelia hottentotta is the easiest to gather because of its upright habit and large dimensions. The generic name refers to the shape of the lichen (Parma (Lat). shield, locket) and its specific name to its distribution in the Hottentot territory.

The ground lichen is used as a deodorant or perfume. A decoction is drunk to cure coughs and to relieve stomach and chest pains.
2.3.2 Vascular Plants

**Amaranthaceae**

*Arthraerua leubnitziae* (Kuntze) Schinz

<table>
<thead>
<tr>
<th>Nama</th>
<th>sabis</th>
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</thead>
<tbody>
<tr>
<td>Common name</td>
<td>ink bush (E)</td>
</tr>
</tbody>
</table>

This bush is common on the gravel plains of the central and northern Namib, where often it represents the only vegetation. The eastern limit of its distribution corresponds to the limit of the coastal fog belt. The plant cannot absorb fog directly, but utilizes water that accumulates on the soil surface through its roots. The stems of this plant are segmented, succulent and forked (furcated), up to 50 cm long, with small triangular leaves that are often reduced to scales. The small flowers, surrounded by dry, greyish bracts, grow in dense inflorescences at the end of the stems. The outer part of the perianth is covered with silky hairs, the inside is scarlet.

A decoction of the roots is drunk to ease tremblings.

**Areaceae**

*Phoenix dactylifera* L.

<table>
<thead>
<tr>
<th>Nama</th>
<th></th>
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<tbody>
<tr>
<td>Common names</td>
<td>dadel (A), date palm (E)</td>
</tr>
</tbody>
</table>

Date palms were introduced in the Kuiseb delta by the Germans, who planted them in the garden of a missionary post near Rooibank (Schepmannsdorp). Since then, these trees have spontaneously multiplied and extended their range. This
The Topnaar of the Kuiseb valley

tree has a cylindrical stem covered with the remains of old leaf-bases. The very large leaves are composed of long linear leaflets, which are irregularly spaced in 2 rows. Male and female small white flowers, grouped in large inflorescences, are found on separate trees.

The fruits are the well-known dates. They are eaten fresh or dried. A decoction of the roots is drunk to treat tuberculosis.

The origin of this tree lies in Arabia and North Africa, but nowadays it is cultivated in many countries. The heart of the stem is edible. The sap is drunk fresh or distilled into a spirit by people other than the Topnaar.

Asclepiadaceae
Milkweed family

Figure 5: Hoodia currori

**Hoodia currori** *(Hooker) Decne*

Nama ǃkhowab, ǃkhobab

This succulent plant, named after Van Hood, himself a famous grower of succulents, and Dr. A.B. Curror, a plant collector in Angola in the 1840's, is found in rock crevices of inselbergs in the Namib. The 12-18-ribbed straight stem of 10-20 cm high and 2.5-5 cm thick bears conical thorns on the ribs, but has no leaves. The stem contains a clear fluid. The large salmon-purple flowers of about 6 cm in diameter have a hairy and papillose corolla and triangular corolla-lobes. Each flower develops into a pair of follicles. These fruits of about 12 cm long split open and release many winged seeds which all have a tuft of silky hair.

The stems are used for this lowers high blood pressure. The flesh is used to sugarwater given to animals. A decoction of the root is put in beer to prevent it from rising.

**Orthanthera albida**
Nama ǃgubib

This erect half shrub grows in gravel plains and in gravel plains and in sand dunes. Its stem is 50 by 1-2 mm and bears sessile flowers, which, after they fall, stay on the stem. The flowers have a hairy corolla with marbled follicles at the base. The seeds are large and split open when ripe to release many winged seeds.

The stems are used for chewing. A decoction of the roots is put in beer to prevent it from rising. Young fruits are eaten as a sweetener. The small seeds are used for sandpaper and sanding.

**Pergularia daemia**
Nama ǃgubtb

The name of this shrub is derived from the Greek word for 'true house', as the plant bears fruits with 1 mm or long 2-12 cm long. The fruits are marbled and have hairs when they split open. Latex added to a decoction is used as an antiseptic. In Botswana an decoction is used for several illnesses, such as rheumatism, snake bite, and vein problems. The latex is applied to wounds.
The stems are eaten raw after the removal of the outer skin and thorns. Eating this lowers high blood pressure, cures colds and indigestion and relieves stomach pains. The flesh is applied to the eyes to relieve eye pains. Pieces of the stem added to sugarwater give a refreshing drink.

**Orthanthera albida** Schinz [VdE 3.4.a]

*Nama gari* 

This erect half-shrub, with hairless, pale greyish stems grows in washes on gravel plains and in the mountains of the Central Namib. The linear leaves of 3-50 by 1-2 mm are often reduced to scales and are absent at flowering time. The sessile flowers, which are apple-green on the inside and greyish on the outside of the corolla, grow in groups halfway up the slender stalks. The green, blackish marbled follicles are up to 10 cm long and 1-2.5 cm wide. They split open when ripe to release many brown seeds with long white hairs.

The stems are chewed to clean the teeth. Drinking a decoction of the stems or chewing the stems relieves stomach pains. For the same reason roots can be used. A decoction of the ground seeds is drunk to cure kidney and back diseases. The root is put in beer to improve its flavour. The fruits are eaten, mainly by children. Young fruits are eaten completely, but in the case of old fruits only the inner part of the peel is eaten (the outer part and the seeds are removed).

**Pergularia daemia** (Forsk.) Chiov. var. daemia [VdE 14.2.d, VdE 6.2.c]

*Nama Igubib, Igubob, daigubib, gutama ob*

The name of this strong herbaceous twiner with milky latex, which often covers shrubs and trees along riverbeds, is derived from the Latin word *pergula*, penthouse, as the plant can be used to overgrow penthouses. The stems are covered with 1 mm or longer stiff erect hairs and bear opposite, heart-shaped leaves of 2-12 cm long. The greenish-white flowers have a double white corona at the base of a staminal column. The fruits are paired follicles of 5-8 cm long and 1 cm in diameter, covered with short fleshy prickles and release many seeds with long white hairs when they split open.

Latex added to drinking water creates a poison which can be used to kill any animals. A decoction of the roots is drunk as a remedy for venereal diseases and vein problems. The powder obtained by roasting the root (or leaf) and grinding it is applied to wounds.

In Botswana and South Africa (Zululand), the leaves are eaten as a wild spinach. The latex or a decoction of the roots is used in many countries as a medicine to treat several illnesses, such as venereal diseases, arthritis, muscular pains, asthma, rheumatism, snake-bites, etc. The latex may also be used as a fish poison.
Pergularia daen

Nama Igubi

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Trichocaulon pe

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This plant is u

Aspilia eenii S.

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Blumea decurren

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Blumea is nan the National Herbarium of Kuiseb and widest silvery hairs. The 1 on the stem. Decu winged stems. The in terminal inflore
**Pergularia daemia** (Forsk.) CIEIV. var. leiocarpa (K. Schum.) H. Huber [VdE 11.5.f]

Nama  lgiubib, lgiwib, dai-lgiubib, lgütema lgb

This plant is similar to *Pergularia daemia* var. *daemia*, but the leaves are smaller (1.5-6 cm long) and the stems are either covered with short 0.5 mm long bristly hairs or completely hairless.

This plant is used in the same way as *Pergularia daemia* var. *daemia*.

**Trichocaulon pedicellatum** Schinz

Nama  lgoab

This leafless succulent grows on mountains, e.g. the Swartbankberg, in rocky crevices. The 12-30-ribbed short columnar stem, found erect or procumbent, bears 1-3 mm long thorns on the ribs. As the word *pedicellatum*, derived from the Latin word *pedicellus* (flower stalk) indicates, the red-brown flowers are stalked and grow in clusters on the top of the stem. They are about 1.5 cm in diameter, hairless but papillose on the inside and have a double corona. The fruits are long, slender follicles.

This plant is used in the same way as *Hoodia currori*, but tastes very bitter.

**Asteraceae**

Daisy family

**Aspilia eenii** S. Moore [VdE 5.4.1] (see fig. 9)

Nama  damadawib

The slender, up to 12 cm long and 1-1.5 cm wide leaves of *Aspilia eenii* grow opposite each other and are covered with short hispid hairs. This plant is striking due to its large bright yellow flowerheads of about 3 cm in diameter, which flower the whole year round. It is frequently found in the Kuiseb delta.

The root may be put in milk to induce curdling and to improve its flavour. This makes a sort of yoghurt, that lasts longer than fresh milk.

**Blumea decurrens** (Vahl) MEXM. [VdE 2.4.c]

Nama  tunub

*Blumea* is named after C.L. Blume (1796-1862), a former director of the National Herbarium of the Netherlands. This half-shrub, growing on the bank of the Kuiseb and widespread in central and northern Namibia, is densely covered with silvery hairs. The linear leaves (up to 3 cm long and 5 mm wide) continue as wings on the stem. *Decurrens*, from the Latin verb *decurrere* (to run down) refers to these winged stems. The whitish-yellow flowerheads are short and tubular and grouped in terminal inflorescences.
A decoction of the leaves or the roots is drunk to relieve stomach pains. This extraction is also used to wash the body; it acts against acne. The leaves are put in the shoes to relieve painful feet. The stalks were in the past used in the construction of huts and are nowadays still used to thatch roofs. This practice makes the roof impermeable.

The Ovambo of northern Namibia use heated leaves as a facial poultice to relieve colds. In Botswana the steam of boiled leaves is inhaled to cure flu.

**Kleinia longiflora**

Nama -

Common names: sambokbossie (A)

Mr. J.T. Klein (1685-1759) from Danzig was the author of several botanical books. This 60-75 cm high half-shrub, named after him, has erect, succulent stems, which are ribbed when dry. The slender leaves are slightly succulent, about 5 cm long and 3-4 mm wide and fall off quickly. The homogamous flowerheads have 5 or 6 bright-red flowers. This plant is common near the Swartbankberg and grows mostly in calcareous conditions.

A decoction of the stems is drunk to relieve toothache and headache.

The Ovambo drink this same decoction to induce vomiting. An extract of fresh roots is used in Botswana for the same purpose.

**Pechuel-Loeschea leubnitziae**

Nama -

Common names: bitterbush, stinkbush (E), bitterbos (A)

The genus *Pechuel-Loeschea* grows only in southern Africa and *P. leubnitziae* is the only existing species. This up to 2 m high shrub is very common along riverbeds throughout the whole Namib. Thick stands may form on riverbanks and it is one of the most common plants in the Kuiseb area. The plant looks greyish because of the fine pubescence covering all plant parts. The linear leaves contain aromatic oils and have a characteristic smell. Numerous lilac, tubular flowerheads embellish the shrub. They look like small shaving brushes.

This plant is used medicinally in different ways. An extract of the leaves is drunk to treat gonorrhoea, fever, colds, chest and stomach pains. The vernacular names refer to the very bitter taste of this extract. The extract is also used cutaneously for the treatment of measles, sores and skin disorders and for the disinfection of wounds. The extract may also be heated to produce vapour. The patient both exposes his body to the vapour as well as inhales it to cure colds and coughs and to treat skin disorders. The crushed fresh or dried leaves are applied to wounds. Warmed leaves are used as a poultice to relieve both painful feet and headaches. An extract of the root is drunk as a tuberculosis remedy.

The Himba use it cutaneously for fever and inhaled vapor as a decongestant.

**Senecio marlothianus**

Nama -

Common names: bitterbush, stinkbush (E), bitterbos (A)

The root can also be used as a decongestant.

**Tagetes minuta**

Nama -

Common names: Senecio, from the genus *Senecio*, from the Latin word *sene* (aged) and *eos* (dawn), referring to the bright yellow flowers that bloom all day.

On the banks of rivers and streams, the leaves with linear linear leaves are composed of 2 petal-like flowers. The leaves are used as a perfume and as a pesticide. The volatile oil is used as a decongestant and as a decongestant. Powdered leaves are used to treat skin disorders.

This plant is used as a decongestant and as a decongestant. Powdered leaves are used to treat skin disorders.
The Himba men mix roasted, ground roots with fat and rub this on their neck as a cosmetic. They also drink an extract of the roots to treat gonorrhoea or use it cutaneously for venereal and skin diseases. The Ovambo drink a leaf decoction for fever and inhale plant fumes to relieve colds.

**Senecio marlothianus** O. Hoffm. [VdE 4.4.g] (see fig. 10)  
Nama  `Igålaub`  
This tomentose pubescent herb has inverted egg-shaped leaves, with serrated margins. The white-yellowish flowerheads grow solitary on very long, leafless stalks of 10-25 cm. The flowerheads are cylindrical, about 1 cm in diameter, and homogamous (all flowers on the flowerhead have the same shape and are bisexual). *Senecio*, from the Latin word *senex*, old man, alludes to the appearance of white fluff on the fruits shortly after flowering. This plant is most common in the more humid areas of Namibia, but grows also in the Kusieb riverbed. The specific name *marlothianus* is derived from H.W.R. Marloth (1855-1931), who studied the flora of South Africa extensively.

The root can be added to home-brewed corn beer to flavour it. The root is wrapped in a cloth, put in the sun, crushed and then added to the beer.

**Tagetes minuta** L. [VdE 2.4.d, VdE 18.4.k]  
Nama  
Common names  stinkbos, kakiebos (A), khaki bush (E)  
On the bank of the Kusieb further east of Homeb grows this annual herb, a native of South America. It exudes a strong, pungent smell. The opposite, pinnate leaves with linear leaflets are covered with oil-glands. The small yellow flowerheads are composed of 2 or 3 whitish-yellow bisexual flowers and 2 to 4 yellow sterile, petal-like flowers. The involucre is also covered with oil-glands.

The leaves can be added to tea to flavour it. The dried, ground leaves are also used as a perfume.

The volatile oil, distilled from the plant, may be used as a repellent for blowfly and as a pesticide. In South America and southern Africa, an infusion or decoction of the plant is used as a lotion for haemorrhoids, and is drunk to relieve stomach pains and to deworm a patient. This decoction also acts diuretically and purgatively. Powdered leaves are sniffed by Zimbabweans to stop nose bleeds.
Figure 8: Kleinia longiflora

Figure 9: Aspilia eentii

Figure 10: Senecio marlothianus

Figure 11: Pechuel-Loeschea leubnitziae

Figure 12: Pechuel-Loeschea leubnitziae in the Kuiseb riverbed

Parkinsonia afra
Nama
Common name
This tree takes royal botanist and grows in bare, arid mountains of the bipinnate leaves cotextile elliptic develop into long, slightly constricted. The roasted as the past the wood
Parkinsonia africana Sonder [VdE 1.4.d]

**Nama**

**Common names**  peulboom (A), wild green-hair tree (E)

This tree takes its name from J. Parkinson (1567-1650) an English pharmacist, royal botanist and himself an owner of a botanical garden. *Parkinsonia africana* grows in bare, arid areas and near dry riverbeds. Some trees are found in the mountains of the Kuiseb valley. Growing up to 6 m high, this thorny tree has bipinnate leaves composed of one pair of pinnae of 4-20 cm long, and 5-15 pairs of minuscule elliptic leaflets (5 by 1.5 mm) with thorny stipules. The yellow flowers develop into long linear reddish-brown pods up to 12 cm long and 0.8 cm wide, slightly constricted between the seeds.

The roasted and ground seeds can be added to coffee to improve its taste. In the past the wood was used to make pipes as it does not crack when hot.
**Capparaceae**  
Caper family

**Boscia albitrunca** (Burch.) Gilg & Benedict  [VdE 20.6.d]  
*Nama* uñuub  
*Common names* witgat, witstamboom (A), caper bush, shepherd’s tree (E)

*Boscia* is named after the French professor in agriculture, L.A.G. Bosc. As the name *albitrunca* (*albus* (Lat.) white; *truncus* (Lat.) trunk) suggests, this small tree has a smooth, flaking white bark with some grey or yellow patches. The tree grows in the more humid savannah area east of the Namib. Its green leathery, lanceolate leaves grow single or clustered on twigs. The small flowers are greenish-yellow, star-shaped, without petals but with numerous yellow stamens and grow in dense racemes. The fruit is a round, pale yellow, smooth-skinned berry about 1 cm in diameter. Each berry consists of a fleshy white pulp surrounding a single hard seed.

A decoction of the leaves is dripped into the ears to relieve earaches.

There exist many other uses of this tree in southern Africa. The berries are edible and can also be made into a sweet drink by mixing them with water or milk. Young roasted and ground roots are used as a coffee substitute. The roots are also prepared as a food in several ways and are used in the fermentation of beer and the curdling of milk. Medicinally *Boscia albitrunca* is used as a remedy against several diseases: a root infusion to treat haemorrhoids and the green fruits against epilepsy.

**Boscia foetida** Schinz ssp. *foetida*  [VdE 19.6.j, VdE 13.2.c]  
*Nama* xaubeihamis  
*Common names* stinkbush, smelly shepherd’s tree (E), stinkdoorn, witgatboom (A)

This shrub or small tree of up to 5 m in height, is common on riverbanks and washes throughout the Namib. Its branches are stout, covered by a smooth, grey bark and often end in a spine. The small inversed egg-shaped to lanceolate leaves are leathery, hairless and grow in clusters. As the species name (*foetida* (Lat.) stinking, smelly) suggests, the small yellowish-green flowers of 2-3 mm long, smell unpleasantly. The fruits are spherical berries, yellowish-brown, densely hairy and about 1 cm in diameter.

A decoction of the leaves and twigs is dripped into the ears to relieve earaches and into the eyes to relieve eye pains.

The Bushmen use a decoction of the leaves for the same purposes. The berries and roots are edible. Before eating the roots, they are first pounded and cooked into a porridge. The root is also used as a chicory substitute. A decoction of the plant is drunk to sooth all over southern Africa.

**Capparis herero**  
*Nama* sirub  
*Common name* *gota*  
This shrub or small tree also grows in the windblown sand dunes, 3-6 cm long, 1-3 thorns. The large thorns develop on their surface *kabar*.

The Topnaar of the Kuiseb valley sonous. It is not r

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*Figure 14: Boscia foetida*
Capparis hereroensis Schinz [VdE 21.4.a]

Nama sirub

This shrub owes its specific name to its distribution in the Herero territory. It also grows in the sand dunes of the Kuiseb delta and the Southern Namib. It traps windblown sand and thus forms hummocks. The long stalked leaves are oblong, 3-6 cm long, 1-3 cm wide and leathery. The stipules are transformed into short thorns. The large, white, tetramerous solitary flowers of approximately 3-4 cm in diameter, develop into large green elliptic berries of 5 cm long, with dark green lines on their surface. The generic name is derived from the Arab word for caper (kabar).

The Topnaar eat these fruits raw. Some authors note that this plant is poisonous. It is not mentioned however which plant part is meant.

Maerua schinzii Pax [VdE 13.2.h, 14.2.a, 21.6.e]

Nama goradab, goardab

Common names kwarda, lammerdrol (A)

This is a shrub or small tree of up to 7 m high which exhibits simple, oblong, alternate leaves, 4-6 cm long and 1.5-3 cm wide. These are leathery and covered with rough hairs. It can be found throughout the Namib, along the rivers, in mountain ranges and on inselbergs. The white flowers have very short or no petals, and numerous white stamens which give the flowers a star-shaped appearance. The fruit is a long, narrow green capsule, constricted between the seeds like a string of pearls. The specific name goes back to H. Schinz, professor in botany and

Figure 14: Boscia foetida ssp. foetida

Figure 15: Capparis hereroensis
The body can be washed with a decoction of the leaves to treat skin disorders and acne and in cases of fever or weakness. The Topnaar people use a decoction of the leaves instead of soap to wash themselves. The body is also washed with this decoction when an improvement in mood is required.

Pounded leaves are sniffed by the Ovambos to relieve headaches. The Bushmen use the root as a tonic, by chewing it or wearing it around the neck as an amulet.

**Figure 16: Maerua schinzii**

**Cucurbitaceae**

**Acanthosicyos horridus** WELW. ex Hook F.

**Nama** !nara(b)

**Common names** nara bush, butterpits (seeds) (E)

The scientific name describes the plant perfectly. *Acanthosicyos* is a composition of the Greek words akrantza (thorn, spine) and sikuos (cucumber, gherkin), together meaning a spiny cucumber. *Horridus*, from the Latin verb horrere, to shudder, to be rough, again refers to its roughness and spinosity.

2–3 cm long paired, straight, sharp spines grow on longitudinally grooved stems. The plant has no leaves. Photosynthesis occurs in the green spines, stems and flowers. Male and female flowers grow on separate plants in the axils of the thorns. They are yellow-greenish and about 3 cm in diameter. The female flow-
ers, easily recognized by the inferior warty ovary, develop into green melon-shaped fruits, up to 15 cm in diameter and covered with small, thorny protuberances. Many cream-coloured seeds, called butterpits, are embedded in an orange-yellow protein-rich pulp.

This shrub is endemic to the coastal part of the Namib desert and grows only in sand dunes where subterranean water is present. The plants trap sand and thus form hummocks, which can be up to several meters high. The thick taproot goes as deep as the water table and root lengths of 40 m have been measured. In the Kuiseb area, Acanthosicyos horridus grows mainly south of the river, close to the coast. It often is the only plant species found in the dunes. The Topnaar call this area where only large Inara hummocks occur the Inara fields.

Archaeological studies indicate that the Inara has been a food for humans living in the Namib desert during the past 8000 years. Sandelowsky (1990) discovered Inara seed shells of 8000 years old at Mirabib Hill Shelter in the Central Namib desert. The patterns of breakage on the shells closely resemble those observed on seed shells collected from the yards of present day Topnaar houses.

In the past the Inara was the staple food of the Topnaar living in the lower Kuiseb valley, consequently also called Naranin (people of the Inara). Today the Inara still plays an important role in their diet.

The harvesting season of the Inara lasts from about November till May. Many Topnaar families still move to the Inara fields for some months to harvest and process the Inara fruits locally. When the fruits are ripe, they are collected and buried in the soil or put in the sun for a few days to make them softer.

In the traditional preparation, the fruits are peeled and boiled for some hours, until the pips are released from the pulp and the pulp becomes deeply orange and thick. Then the pips are separated from the pulp by sieving. The pips are dried in the sun for a few days and thereafter stored in bags. They are eaten like nuts or ground and added to dishes. A portion of the pips are sold to Walvisbay traders, who export them to Cape Town, where they are eaten raw (called butterpits) or used in confectionery. The taste is similar to that of almonds and the pips are highly nutritious: they contain up to 57% oil (peanuts e.g. contain 42-52% oil), which has a high percentage of poly-unsaturated fatty acids, and 31% protein. The boiled pulp is poured on the sand or on bags and dried in the sun for a few days. This dried pulp forms flat cakes called goakaribeb. These cakes can be chewed or added to porridge. This preparation and drying allows the Topnaar to store the Inara for months and eat it the whole year through.
The fresh fruits contain cucurbitacin.

The raw fruit is eaten raw or roasted.

The !nara is the roots is called a "venereal disease" because of chest pains. For example, it cures all diseases. Fat is rubbed on the body before, then it is rubbed off afterwards.

Oil from the seeds is used for sunburn.

The peels of Citrullus ecirrius are used as a surviving mixture.

Citrullus ecirrius is the most important fruit in the Central Namibian region.

Common names: Nama tsam, citrus.

Figure 17: Acanthosicyos horridus
The fresh fruit can also be eaten raw and has a pleasant fruity taste but contains cucurbitacins which burn the mouth. Eating the fresh fruit relieves stomach pains. The raw pips, separated from the pulp by rubbing them in the sand, are eaten raw or roasted.

The !nara is not only an important food plant. A decoction of the very bitter roots is called a life elixir and is used to cure many internal diseases, such as venereal diseases, stomach pains, nausea, kidney problems, arteriosclerosis and chest pains. For curing the same ailments the roots can be chewed. Some people say it cures all diseases and heals you within a day. The crushed root, mixed with fat is rubbed on wounds to hasten healing.

Oil from the raw or boiled pips is used to moisturize the skin and protect it from sunburn. For this treatment the pips are ground in a mortar and this mixture is rubbed on the skin. The remaining seed shells and kernels are wiped off afterwards.

The peels of the fruit are fed to donkeys and goats and the pips to chicken.

*Citrullus ecirrhosus* Cogn.

Nama  *tsamab*

Common names  tsama melon, bitter apple (E), bitterappel (A)

*Figure 18: Citrullus ecirrhosus*

*Citrullus* is the diminutive form of *Citrus*, meaning low plant with lemon-like fruits (much larger than the real lemon though). This poorly branched creeper without tendrils is found in washes on the gravel plains or in dry riverbeds of the Central Namib. The leaves are deeply 3-5-lobed and have stiff white hairs on the veins of the upperside and the whole underside. Male and female yellow flowers grow on the same plant, solitary in the leaf axils. The large fruits are
spherical, about 8 cm in diameter, and dark green mottled. The bitter, inedible pulp surrounds many brown-black seeds, which are roasted and eaten.

The seeds are also eaten by the Bushmen of the Kalahari. The Ovambos mix the seed oil with red ochre to make a cosmetic.

**Cyperaceae**  
Sedge family

*Cyperus marginatus* Thunb. [VdE 19.6.e, VdE 23.3.e, VdE 8.2.f, VdE 12.5.e]  
Nama: *iharub*

*Cyperus* is derived from the Greek word *kupetros*, meaning a plant with fragrant roots, as some species indeed have fragrant roots (e.g., *C. rotundus*). *Cyperus marginatus* grows on moist places in riverbeds. This perennial grassy herb has a woody rhizome, cylindrical leafless stems of 30-90 cm high and small, inconspicuous flowers, arranged in many finger-shaped spikelets.

The stalks are used to thatch roofs. In the past the Topnaar plaited mats with *Cyperus* stalks.

**Ebenaceae**  
Ebony family

*Euclea pseudebenus* E. Meyer ex A.DC. [VdE 17.1.b]  
Nama: *tsabis, tsawis*

Common names: black ebony, Cape ebony, false ebony (E), swartebbe, basterebbehout (A)

*Euclea pseudebenus* grows along all dry riverbeds in the Namib. It is called false ebony (*pseudebenus*) as its black heartwood resembles ebony. This tree's pendant branches bear slender leathery leaves, which are ten times longer than wide. The botanical name *Euclea*, meaning glory in Greek, is most appropriate when one sees this shady tree with abundant foliage growing in dry riverbeds. Male and female white-yellowish flowers grow on separate trees. The female flowers develop into spherical fleshy pea-sized berries.

The wood of this tree is used as fuelwood, for the construction of houses and kraals and in the manufacture of utensils. The roots are chewed to clean the teeth. The leaves are browsed by livestock and the berries can be fed to chickens.

The fruits are edible but quite astringent. The heartwood is extensively used in southern Africa for wood carving.
The bitter, inedible plant is eaten.

The Ovambos mix a plant with _Cyperus retrivus_. _Cyperus_ grassy herb has a small, inconspicuous plaited mats with swartebbe.

**Nama Ikheras**

*COMMON NAMES* castor bean (E), kasterolieboom (A)

This shrub, reaching up to 4 m high, is a very common alien in all river valleys of the Namib. The base of the shrub is woody whilst the upper branches are herbaceous, having large palmately lobed leaves up to 30 cm long. The unisexual flowers grow on the same plant, male flowers at the top and female flowers at the base of terminal spikes. The spiny, dehiscent fruit (about 2.5 cm long) is composed of 3 carpels, each containing 1 mottled seed. These seeds resemble sheep ticks, called _ricinus_ in Latin.

In cases of mumps or toothache, the _Ricinus_ seeds are ground, boiled and rubbed on the swollen cheek (or fat is rubbed on the swollen cheek). The whole is covered with a warmed leaf and a compress. The roasted and ground seeds are applied on burns and wounds. A warmed leaf can be used as a poultice on wounds and skin diseases, also on painful knees or breasts and on the throat in cases of...
throat pains.

*Ricinus communis* is used worldwide as a medicine to treat several diseases, e.g. rheumatism, fever, diarrhoea, nervous disorders, ulcers, toothache, earache, external parasites, bilharziasis, ... The unbroken seed is strongly purgative, but at the same time extremely toxic: 2 or 3 seeds are lethal.

**Fabaceae**

Pea family

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**Tephrosia dregea**

Nama | ihenai

The word *Tephrosia* for the plant's leaves. *Dregea* is an old Greek name for a perennial herb, up to 1.6 m high, found in the Kuiseb canyon (3-9 by 0.2-0.8 cm), with flowers developing into small beaked pods containing small seeds.

The Kuiseb's Throat Pains

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**Monsonia sp.** L.

Nama | harapa

*Monsonias* in southern Africa are perennial herbs with papilionaceous flowers. During the period of flowering, the leaves are tear-shaped orange-brown in color. The seeds are small and rounded, and some can be eaten. Also, the fruit is edible.

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**Ocimum canum** S. Pers.

Nama | gam

The fragrant leaves of *Ocimum* are slender, 1-4.5 cm long, found in the Kuiseb river bed. The quadrangular stem is arranged in whorls and the leaf name is derived from the Latin *folium* (leaf). The crushed leaves are used to curdle milk.

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**Cullen obtusifolia** (DC) Stirton

Nama | !honab

This perennial herb is densely covered with white hairs and glands and secretes a sweet aromatic smell. It is found in the Kuiseb river bed following a flood, as well as in mountains and dunes. As its name indicates (*obtusus* (Lat.), obtuse and *folium* (Lat.), leaf) its trifoliate leaves are indeed obtuse and have dentate margins. Small purple papilionaceous flowers develop into small oval pods. Three such flowers are grouped in a hairy, glandular bract.

The leaves or the whole plant can be added to tea for flavouring. This tea whets the appetite. Adding the root to milk gives the milk a good taste and curdles it into a kind of yoghurt. An extraction of the plant in water or milk, or tea made from it, is drunk for the relief of stomach pains and post-natal pains. This is also given to goats after parturition. The Damara also use the root to curdle milk.

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**Figure 20: Cullen obtusifolia**
The word *Tephrosia* is of Greek origin and refers to the ashy colour of this plant’s leaves. *Dregeana* goes back to J.F. Drège (1794-1881) who travelled widely in southern Africa and collected many botanical specimens there. This annual or perennial herb, up to 1 m high, grows on the gravel plains of the Central Namib and in the Kuiseb canyon. The odd-pinnate leaves consist of 2-5 pairs of linear leaflets (3-9 by 0.2-0.8 cm). The small lilac papilionaceous flowers, growing in racemes, develop into small yellowish-green pods, 15-30 by 3-4.5 mm. These are slightly beaked and contain 3-5 seeds.

The Kuiseb’s Topnaar add the root of this herb to milk to curdle it into yoghurt.

*Geraniaceae*

*Monsonia sp.*

*Nama* harapab, rabab, bosui (seeds), surube (unripe seeds)

*Monsonias* in the Namib are erect or creeping herbs with opposite, heart-shaped leaves and stipules. The flowers develop into a 5-partite, beaked splitting fruit. During the present research, only the seeds of this herb were seen. These tear-shaped orange-brown seeds are 2-3 mm long and surrounded by a darker brown shell. The plant could thus not be identified to the species level.

The seeds are collected by ants. The Topnaar gather these seeds from the ant nests and add them to tea or roast and grind them and add them to coffee for a better flavour. Also the leaves are used to improve the flavour of tea. Baked seeds can be eaten.

*Ocimum canum* SIMS

*Nama* gammeb, gaubeb, gaubab

The fragrant leaves of this annual herb give a fresh flavour to tea. These leaves are slender, 1-4.5 cm long and hairy (*canum* (Lat.) grey, hairy). The plant grows in the Kuiseb riverbed after floods or rain. Typical for the mint family are the quadrangular stems, which reach a height of about 30 cm, and the labiate flowers arranged in whorls. The flowers of *Ocimum canum* are pink-violet. The generic name is derived from the Greek verb *azein*, to smell strongly.

The crushed roots are used as a body powder.

In Tanzania, the leaf is used as a remedy for bilharziasis and snake-bites.
In West Africa the plant is burnt to repel mosquitos. The smoke of the burning leaves may be inhaled by the Sotho of South Africa to stop nose-bleeding. The same smoke is in Zimbabwe inhaled or the body is washed with an infusion to stop convulsions.

**Liliaceae**

*Liliaceae*

*Aloe asperifolia* A. Berger

**Nama**  aukoreb

The Greek word *aloe* means a bitter component of vegetative origin. The leaves of most *Aloes* contain a bitter juice. This stemless, succulent plant has fleshy, falcate, grey-green leaves of 15-25 by 4-7 cm with thorns on the margins. They grow in rosettes, supported by 3-4 mm wide stipules. The specific name, *asper* (Lat.) meaning rough and *folium* (Lat.) leaf, refers to the roughness of the leaf surface. 28 mm long scarlet tubular flowers grow grouped together in a 70-80 cm high inflorescence. *Aloe asperifolia* grows in washes and crevices of calcareous mountains, such as the Swartbankberg.

A decoction of the leaves is drunk to treat arteriosclerosis, kidney problems, asthma, epilepsy and colds. The decoction is drunk by people and livestock to induce discharge of the afterbirth. The same decoction is given to donkeys when they have eaten poisonous plants. The leaves are chewed or a decoction of it is drunk for the relief of stomach and chest pains. A leaf is added to the drinking water of chickens should they suffer from a disease, the symptoms of which are falling over and paralysis.

*Aloe dichotoma* Masson

**Nama**  || garab

**Common names**  kokerboom (A), quiver tree (E)

In the past, the hollow branches and bark of this tree were used as a quiver for arrows. The common names are derived from this use. This tree which can grow up to 6 m high has a very thick trunk and is found in the mountains of the pro-Namib. The branches are bifurcated (*dichotomos* (Gk.) means split in two) and have a smooth bark. 25-35 cm long and 5 cm wide, triangular, bluish-green leaves with serrated margins grow in rosettes at the end of the branches. The fleshy yellow flowers, up to 35 mm long, are arranged in about 30 cm long spikes.

A decoction of the root is drunk to treat tuberculosis and asthma.
Figure 23: Aloe asperifolia

The Topnaar of the Kuiseb valley

The leaves of the burning nose-bleeding. The plant has fleshy, fleshy, fleshy leaves. They have a specific name, *asper*, meaning sharpness of the leaf tip. They are 70-80 cm long.

The leaves are used as a quiver. This tree which can be found in the mountains of the Namsen split in two). It is regular, bluish-green in shape. The stamens are 30 cm long spikes. Eject

Figure 21: Aloe dichotoma

Figure 22: Brownanthus kuntzei

Figure 23: Aloe asperifolia
Mesembryanthemaceae

Brownanthus kuntzei (Schinz)Hilmenf. & Bittrich [VdE 9.5.c]
Nama  naugub
Common name wonderplant (A)

This so-called wonderplant is a succulent bush with segmented stems which resemble parts of a finger, and are covered with glittering papillae. The plant has small opposite leaves which shrivel and fall off when old. At the top of the stems develop small white flowers of about 1 cm in diameter with numerous white filiform petals and white stamens. The bush grows in washes in and around mountains, in old riverbeds, and on the gravel plains along the coast, where it traps windblown sand and thus forms small hummocks. This plant’s name is derived from the South African botanist N.E. Brown and the Greek word for flower, anthos.

Exposing the chest to vapour obtained by boiling the whole plant is a treatment for colds, fever and flu. Inhalation of this vapour induces vomiting and thus relieves nausea. A decoction of the stems can be drunk to relieve stomach pains, to solve constipation and to whet the appetite. The same decoction is given to animals if their stomach is inflated or if they are infestedated with a tape-worm.

Mimosaceae

Acacia albida Del. [VdE 12.4.g]
Nama  anas
Common names ana tree (E), anaboom (A)

The name Acacia is derived from the Greek word akakia, meaning spiny tree. Albida in turn refers to its white wood, twigs and thorns. This tree is the largest Acacia found in southern Africa and may reach heights up to 30 m. The tree is common on riverbanks and often grows together with Acacia erioloba. It has spreading, drooping branches and a rounded crown. The bark is dark brown to dull grey. The paired, straight or slightly curved thorns are whitish with reddish-brown tips and are up to 4 cm long. The bipinnate leaves consist of 3-6 pairs of pinnae and 7-16 pairs of small, grey-green leaflets. The leaves are smaller in drier circumstances thus reducing water loss through transpiration, and are shed at the beginning of the rainy season. The tree remains leafless until the beginning of the dry season. The cream-coloured flowers are arranged in axillar spikes (resembling brushes) and develop into large orange to reddish-brown contorted pods of 2-3 cm wide and 10-20 cm long. These pods contain very hard, brown, lenticular seeds that are protein rich (29%).

The pods of the ana tree are the most important fodder for the goats and cattle in the Kuiseb area, due to its hardness. The stems are used as poles and the bark as roofing material.

During times of drought, the bark is used for drinking water. The tree is also an important source of food for animals and provides fodder for goats and cattle. The pods also yield an edible seed, which is poisonous.

Acacia erioloba Del. [VdE 9.5.e]  
Nama  gana
Common name ana tree (E), anaboom (A)

This large tree is common along river banks and also in the Kuiseb valley, occurring in the Kuiseb and on the gravel plains along the coast. The plant’s name is derived from the Greek word for flower, anthos.

The bipinnate leaves contain very hard, brown, lenticular seeds that are protein rich (29%).

This tree, together with Acacia albida, is used as a source of fuel in the Kuiseb area. In the past, the Topnaar used it to heat their homes, and it was also sold as a tourist attraction.

Topnaar himself uses the tree for the production of firewood for his dwellings. In particular, the wood is used for the construction of the roofs. The wood is also used to make furniture and to build houses. The wood is also an important source of food for animals and provides fodder for goats and cattle. The pods also yield an edible seed, which is poisonous.

The Ovambo people also use the tree for the production of firewood for their homes. In particular, the wood is used for the construction of the roofs. The wood is also an important source of food for animals and provides fodder for goats and cattle. The pods also yield an edible seed, which is poisonous.
Acacia tortilis (Figure 24)

Nama | narab
Common name: haak-en-ste

Some Acacia tortilis grow up to 10 m high and have straight (up to 7 cm) stems. The name heteracantha is derived from hetero, meaning different, and akantha, thorn. The thorns are at their base. The leaves are very small linear leaves which are somewhat resemble that of the Prosopis glandulosa. They are up to 6 mm wide. They are straight or winding.

The gum, callo...
Acacia tortilis (Forsk.) Hayne ssp. heteracantha (Burch.) Breman

Nama | narab, naras

Common names  umbrella thorn (E), basterkameeldoring, krulpeul, haak-en-steek (A)

Some Acacia tortilis trees are found on the bank of the Kuiseb. They can grow up to 10 m high and bear thorns that are either short and hooked or long and straight (up to 7 cm long). This characteristic of the thorns is represented by the name heteracantha, derived from the Greek words heteros, heterogeneous and akantha, thorn. These thorns are whitish, occur in pairs, and are often thickened at their base. The bipinnate leaves consist of 5-8 pairs of pinnae and 9-16 pairs of very small linear leaflets. The yellow flowers form small, spherical inflorescences somewhat resembling balls. The pods of this tree are flat and spirally contorted, up to 6 mm wide. The name tortilis is of Latin origin (torquere) and means contorted or winding.

The gum, called hairan in Nama, is edible. The pods are a nutritious fodder.

Figure 26: Prosopis glandulosa

Prosopis glandulosa Torrey [VdE 15.2.g]

Nama | narab

Common names  honey locust (E), soetpeul (A)

A native of the U.S.A., Prosopis was introduced to southern Africa primarily as an ornamental but it also provided shade and fodder. This shrub or small tree, up to 10 m high, is tolerant to extreme temperatures, drought and overgrazing. It is tending, therefore, to replace the native vegetation of southern Africa. It grows on the bank of the lower Kuiseb river between Ururas and Rooibank. The branches
are armed with paired or solitary straight spines. The bipinnate leaves have 1-2 pairs of pinnae and 7-22 pairs of ovate leaflets. The numerous, small yellow flowers are arranged in a long spike. The pods are about 20 cm long, straight and beaked at the end.

The pods are eaten by both people and livestock.

The pods are used by American Indians to make a stew or an alcoholic beverage. The gum exuded by the tree has been used as a substitute for araucaria gum in the manufacture of adhesives and drops.

**Moraceae**

*Ficus sycomorus* L. [VdE 12.4.a]

Nama | nomas
Common names sycamore fig (E), wildevye, gewone trosvy (A)

*Ficus* is the Latin name for fig, and *sycomorus* is derived from the Greek word *sukomoros*, meaning mulberry. This wild fig tree grows up to 25 m high and is characteristically wider than it is high. It grows along the Kuiseb, although it can be found on riverbanks all over southern Africa. The bark is smooth, yellowish-brown to grey in colour and sometimes flakey. The slightly heart-shaped leaves, of up to 15 cm in length, have rough, dark green surfaces and exude a milky latex when damaged. The figs are smaller than their cultivated equivalent, 1.5-2.5 cm in diameter and grow in panicles on the main branches and the trunk. They are covered with soft hair and turn yellow when ripe.

The wild figs are eaten fresh or dried. The raw fruits can be put in a jar with sugar, which makes a kind of jam. The dried and ground fruits are used as a substitute for coffee.

A spirit is distilled from the fruits in Zambia and northern Namibia. The latex and a bark decoction are used as a remedy for chest and stomach complaints and coughs in tropical Africa. The latex is applied to inflammations. To increase milk production when breast feeding, women in Botswana drink a bark decoction and fruits and leaves are fed to cows. The Masai use the bark as an antidiarrhoeal.

**Myrothamnaceae**

*Myrothamnus flabelifolius* Welw. [VdE 20.6.e]

Nama | i kho trovotrosten, tinosen, i khoitortorsten, i khoitortorsten
Common names resurrection bush (E), teebossie (A)

This plant's generic name is composed of 2 Greek words; *muron*, meaning balm and *thamnos* meaning shrub, hence together meaning a fragrant shrub. This bush has red-brown erect, fan when dry, giving characteristic is the source leaf. After the tree, even when a branch explains the plant's flowers grow in cat, a bush grows on river.

Leaves and stems

All over southern leaves is inhaled to infusion is drunk to menstrual pains. The powdered root

**Rogeria longiflora**

Nama | dau an

As is the case w herb, up to 2 m hig
has red-brown erect stems. The small opposite leaves, 5-10 mm long, fold like a fan when dry, giving the impression that the plant is completely dead. This characteristic is the source of its specific name: *flabellum* (Lat.) meaning fan and *folium* (Lat.) leaf. After the first good rains, however, the leaves unfold and are green. Even when a branch is cut off and put into some water its leaves come alive. This explains the plant’s common name resurrection bush. The red-brown unisexual flowers grow in catkin-like inflorescences on separate plants. The resurrection bush grows on riverbanks, in gravel plain washes and on mountain slopes.

Leaves and stems are added to tea. They are also used as a spice.

All over southern Africa, this plant is used as a medicine. The smoke of burnt leaves is inhaled to relieve asthma and chest pains and to ease epilepsy. A leaf infusion is drunk to cure colds, kidney problems, flu, to relieve backaches and menstrual pains. The leaves can be chewed to ease inflammation of the gums. The powdered root is sniffed or a root decoction is drunk to relieve headache.

**Pedaliaceae**

*Sesame family*

![Figure 27: Rogeria longiflora](image)

**Rogeria longiflora** (ROYEN) D. GAY ex DC. [VdE 7.2.m]

*Nama* daulanab, [gamia]wib

As is the case with all Pedaliaceae, *Rogeria*’s leaves smell foul. This annual herb, up to 2 m high, has large rhombic-triangular leaves. The approximately 7
cm long white, spurred flowers, which grow in groups in the leaf axils are very attractive. The most distinctive feature, however, are the woody, 4-6 cm long fruits with 2 large cone-shaped thorns. This plant is very common in the Kuiseb riverbed. The roasted and ground seeds, sometimes mixed with fat, are applied to wounds to stop bleeding. This mixture is also rubbed on burns to provide relief from pains. Warmed leaves are used as a poultice on women’s breasts to cure cracked nipples.

Rutaceae

Citrus family

**Thamnosma africana** Engler  [VdE 5.4.h]

Nama  *khana*

Common name  flea bush (E)

As the generic name implies; *thamnos* (Gk.) meaning shrub and *osme* (Gk.) fragrance, this woody, 1 m high herb is strongly aromatic. The plant is hairless but glandular and has compound leaves with 3-5 linear-spathulate leaflets (10-25 by 1-2 mm in size). The tetramerous yellow flowers, growing in terminal inflorescences, develop into green teardrop-shaped capsules, which are black-spotted due to a covering of glands.

Drinking a decoction of the whole herb induces vomiting and is used to relieve stomach pains and nausea. This decoction is also a cough remedy. Leaves are thrown on the fire to ‘induce happiness’.

The Bergdamara (Namibia) drink the same decoction to treat flu, colds and infections. At the same time the body is covered with the boiled leaves and wrapped to induce sweating. The Himba use the ground roots and flowers as a fragrant neck powder. In South Africa the plant is smoked to relieve chest pains.

**Salvadora persica**

Nama  *khon*

Common name  horse chestnut

The *Salvadora* pharmacist; *pers* green clumps along 5 by 1-3 cm), bristles next to each other. The flowers and develop into a single seed inside a small capsule. They are said to be the deworming agent.

The fruits, which are sometimes used as another alternative, can be fed to chickens.

The Ovambo treat rash. The Bergdamara treat flu, colds and infections. At the same time the body is covered with the boiled leaves and wrapped to induce sweating. The Himba use the ground roots and flowers as a fragrant neck powder. In South Africa the plant is smoked to relieve chest pains.

**Lycium cinereum**

Nama  *ali*

Common name  the common

The common name for the construction ends in a sharp thorn on shoots. White flowers develop into red berries with salty soils, suitable for the construction. The resulting powder under the clothes has the same function.

The ripe berries
The Topnaar of the Kuiseb valley

Salvadoraceae
Mustard tree family

Salvadora persica
Nama: khoris
Common names: tooth-brush tree, salt bush (E), kerriebos (A)

The Salvadora bush is named after J. Salvador y Bosca (1598-1681), a Spanish pharmacist; persica means Persian. This evergreen shrub forms dense, bright-green clumps along riverbeds and on dune slipfaces. The leathery elliptical (2.5-5 by 1-3 cm), bright green leaves grow in opposite pairs and at right angles to each other. The small greenish-yellow flowers are present throughout the year and develop into small round, pink-reddish drupes about 6 mm in diameter, with a single seed inside. These seeds contain benzyl mustard oil. The fruits and seeds are said to be the mustard mentioned in the bible.

The fruits, which smell like cress, are edible but cause diarrhoea. The wood is sometimes used as a fuel. The leaves are browsed by livestock and the fruits can be fed to chickens.

The Ovambo rub a mixture of crushed leaves and water over the body to treat rash. The Bergdamara drink a root decoction to relieve stomach and intestinal pains and to cure diarrhoea. The Himba give the same decoction to their cattle to treat the same complaints. In central Africa, the bark is used for gastritis and as a deworming agent, a decoction of the roots is considered a remedy for gonorrhoea.

Solanaceae
Potato family, Nightshade family

Lycium cinereum
Nama: arcs
Common Names: bokdoring, kraaldoring, slangbessie (A)

The common names of Lycium cinereum refer to the use of this thorny shrub for the construction of thief-proof hedges around kraals and gardens. Every twig ends in a sharp thorn. The small semi-succulent spathulate leaves are clustered on shoots. White tubular flowers of 5-10 mm long grow solitary or in clusters and develop into red berries. This shrub is common in coastal depressions and vleis with salty soils, such as the delta of the Kuiseb.

All parts of the shrub (flowers, leaves, twigs and roots) can be dried and crushed. The resulting powder is used on the body as a perfume. The crushed twigs are worn under the clothes for their pleasant smell.

The ripe berries are in South Africa eaten by children.
**Nicotiana glauca**

*Nama*

*Common name*

This genus is native of Argentina, who introduced tobacco to Africa through missionaries. It is r-

to 10 cm long, leaves glauca (sea-green, 1-

grow in terminal pa-

pin-head sized seeds.

Warmed leaves put on the throat to relieve stomach pain, put onto sores and is put on the swelling. The leaves are used in fences. It is a very sma-

A leaf extract can

**Tamarix usneoides**

*Nama daweb*

*Common name*

This salt-resistant plant grow alongside the sea. Its name daweb, since the deep green, but by midd-

limits the tree's trunks separate trees.

A decoction of the moss, since the deep green, but by midd-

limits the tree's trunks separate trees.

A decoction of the moss, since the deep green, but by midd-

limits the tree's trunks separate trees.

A decoction of the moss, since the deep green, but by midd-

limits the tree's trunks separate trees.

A decoction of the moss, since the deep green, but by midd-

limits the tree's trunks separate trees.

A decoction of the moss, since the deep green, but by midd-

limits the tree's trunks separate trees.
Nicotiana glauca  R. Graham  [VdE 18.4.k]

Nama -

Common names  blue-green nicotiana (E), wilde tabak (A)

This genus is named after J. Nicot de Villemain (1530-1600), the Frenchman who introduced tobacco seeds to France in 1560. This wild tobacco shrub is a native of Argentina and was introduced in Namibia as an ornamental plant via missionaries. It is now growing in almost all riverbeds of the Namib. Its oblong, up to 10 cm long, leaves are bluish-green, and are the origin of its specific Latin name *glauca* (sea-green, blue-green). Beautiful yellow tubular flowers of 3-4.5 cm long grow in terminal panicles. The fruit is a 2-valved capsule with many minuscule pin-head sized seeds. Both the plant and seeds are highly poisonous.

Warmed leaves are put in shoes in cases of painful, tired feet. They are also put on the throat to relieve pain or on the head to relieve headache. A boiled leaf, put onto sores and pimples, draws out pus. If children have mumps, a warm leaf is put on the swollen cheek and this is covered with a compress in order to reduce the swelling. The branches are used for the construction of houses, kraals and fences. It is a very strong construction material.

A leaf extract can be used as an insecticide against aphids.

Tamaricaceae
Tamarisk family

*Tamarix usneoides*  E. Meyer ex Bunge  [VdE 21.4.b]

Nama  daweb

Common name  tamarisk (E)

This salt-resistant tree grows along all riverbeds of the Namib and in dune depressions. Its name is derived from its occurrence along the Tamaris river in Spain. The shallow spreading roots give rise to buds, resulting in new plants that grow alongside the parent tree. The name *usneoides* is derived from *Usnêa*, beard moss, since the drooping branches with small, scale-like leaves remind one of beard mosses. The leaves change colour during the day. In the morning they are green, but by midday they appear greyish due to covering of salt crystals which limits the tree's transpiration. Small unisexual, pinkish-white flowers grow on separate trees.

A decoction of the roots is drunk to cure indigestion and diarrhoea and to relieve stomach pains.
2.3.3 Unidentified Plants

Due to the absence of rains and significant floods in the area during the study period, some plants (mostly annuals) could not be found in the field or were unidentifiable. Only the Nama name and the local uses of these plants are known. The scientific name could also not be found in literature when starting from the Nama name. These plants are listed in alphabetic order. The order used for the clicks is 

| aib | The root of this plant is put into milk to curdle it and improve its flavour.

| aueb, aub | This large tree has oval opposite leaves. A decoction of the ground root or wood is drunk to relieve stomach pains. The root is put into home-brewed beer as a flavouring. The ground root is used as a perfume. This tree might be *Spierstachys africana* (Eisch et al., 1991).

| girhaib | The plant's root, mixed with tea, and boiled gives a decoction which is fed to donkeys suffering from constipation. The root is chewed by people or the decoction is drunk to relieve stomach pains and treat constipation.

| hōs | This 2 m high tree has small, rhombic leaves and a flakey yellowish-green bark, which is red on young twigs. The wood is used for carving and making furniture.

| lotsamab | The root, when boiled in water or milk gives a decoction that is drunk for the relief of stomach, intestinal, menstruation and post-natal pains. Chewing the roots can also relieve these pains. The boiled leaf is put onto wounds to stop bleeding and hasten healing. The roasted and ground root or the whole plant (mixed with fat or vaseline) is rubbed into wounds and burns. The roasted and ground leaves are applied to the skin to treat various skin disorders. Throwing the leaves into the fire keeps wild animals away. This same practice is also used to attract lost goats.

Some Topnaar showed a plant, identified as *Withania somnifera*, and said this was *lotsamab*, but others disagreed with this.

| !khai_awib | The whole plant is roasted and ground. The powder so obtained is applied to wounds to hasten healing or is used as a perfume.
The powder obtained from between the stem and the bark of this tree is mixed with fat and was in the past used as a cosmetic.

This tree could be *Acacia erioloba* (Du Pisani, 1983).

!ub

A decoction of the roots of this creeper is drunk, or the roots are chewed to relieve stomach pains and treat intestinal problems. The plant is also used as a perfume.
Map 3: The Sesfontein area
3. The Topnaar of Sesfontein

Figure 32: View on the Sesfontein valley
3.1 Natural Environment

The natural conditions in the residential area of the Topnaar of Sesfontein differ quite a lot from the conditions in the Kuiseb area. The Topnaar live on the alluvial plain of Sesfontein, north of the Hoanib river, on the fringes of the Northern Namib.

3.1.1 Climate

The climate around Sesfontein is characterized by a higher rainfall than in the Kuiseb area. Rainfall is, however, very irregular. Fog is rare. Temperature records are not available.

3.1.2 Geography and Geology

3.1.2.1 Hoanib

South of Sesfontein, an ephemeral river, the Hoanib, intersects the plain. The Hoanib is the primary boundary between Kaokoveld to its north and Damaraland in the south. The Hoanib is very important for the vegetation that occurs along its linear oasis which attracts a lot of game. The source of the river is situated west of Kamanjab on the central Namibian plateau. A large part of the catchment area is situated in the central part of Kaokoveld and Damaraland. A mean annual precipitation of 100 - 250 mm in this area is sufficient to yield some superficial waterflow during the rainy season. Downstream it forms a deep gorge (the Khowarib Schlucht) before it successively enters the plains of Warmquelle, Sesfontein and Omaruru-Okambonde-Okongoro. From there on, the river forms a deep gorge towards Amspoort. While the plains are used as grazing grounds by the livestock of Damaraland, Topnaar, Herero and Himba; the gorge is an important grazing ground and water source for a lot of game, including elephants, rhinos and giraffes. Downstream of Amspoort the Hoanib riverbed widens and forms a large vlei (swamp) called Gui-uin. The lower Hoanib, downstream of Gui-uin is completely covered by dunes for about 15 km. There is no superficial waterflow downstream of Gui-uin but the subterranean waterflow is considerable. The water supplied by the Hoanib evaporates in the vlei, thus increasing the soil salinity. This results in a deterioration of the vegetation or a salt-tolerant vegetation consisting of halophytes.

3.1.2.2 Plains of Sesfontein

Around Sesfontein there are some large alluvial plains: Giribes (WNW of Sesfontein), Omaruru-Okambonde-Okongoro (SW of Sesfontein), Sesfontein, Warmquelle (separated from the Sesfontein plain by the Nameb-Gomgurib mountains).

3.1.2.3 Moun

The area around Sesfontein belongs to the late Miocene and is composed of limestone, shale and sandstone. The area is orientated perpendicularly south of Warmquelle and oriented perpendicularly south of Warmquelle and Warmquelle and Warmquelle.

3.1.3 Vegetation

3.1.3.1 Hoanib

The Hoanib riverbed is

The Gui-uin is

The Gui-uin is

Tamarix usneoides

and Ficus

3.1.3.2 Plains

The sandy plains are

by Acacia tortilis and Colophospermum mopane (plain.

The Omaruru-Okambonde-Okongoro is

covered with mainly pernum mopane (Forsskål) Hay

Welwitschia mirabilis (Moq.)

coats, Boscia foetida & Benedictus

schinzi Pax, Gale montis usit Merx
The Topnaar of Sesfontein

3.1.2.3 Mountain Ranges

The area around Sesfontein, Warmquelle and southwards to Khoraxa-ams belongs to the latest formation of the Damara sequence which is about 650 million years old and consists of phyllite, quartzite, schist and conglomerate. The Nameb-Gomgurib mountain range as well as the mountains north of Sesfontein, east and south of Warmquelle are older (based on relative datings) and consist of dolomite, limestone, shale and chert. The Nameb-Gomgurib mountain range is north-south orientated, perpendicular to the Hoanib. It separates the plains of Sesfontein and Warmquelle and has a height of 1325 m.

3.1.3 Vegetation of Sesfontein

3.1.3.1 Hoanib

The Hoanib river flows through a narrow gorge between Sesfontein and Amスポort.

The Gui-uin Vlei is completely covered by Suaeda cfr. plumosa Aellen and Tamarix usneoides E. Meyer ex Bunge. At some places, Nicotiana glauca Graham and Ficus sycomorus L. can be found.

3.1.3.2 Plains of Sesfontein

The sandy plain of Sesfontein is covered with a plant community dominated by Acacia tortilis (Forskål) Hayne subsp. heterocantha (Burchell) Breman and Colophospermum mopane (Kirk ex Bentham) Kirk ex Leonard.

The sandy Giribis plain, northwest of Sesfontein mainly consists of Stipagrostis uniplumis (Licht. ex Roemer & Schultes) De Winter and Stipagrostis giessii Kers. Further north a stand of Commiphora giessii Van Der Walt and Colophospermum mopane (Kirk ex Bentham) Kirk ex Leonard was found on a gravel plain.

The Omaruru - Okambonde - Okongoro plain, southwest of Sesfontein is covered with mainly gravel and stone. The vegetation consists mainly of Colophospermum mopane (Kirk ex Bentham) Kirk ex Leonard and Acacia tortilis (Forskål) Hayne subsp. heterocantha (Burchell) Breman. At several places Welwitschia mirabilis Hook.f., Commiphora giessii Van Der Walt, Calicorema capitata (Moq.) Hook f., Adenolobus garipensis (E. Meyer) Torre & Hillcoat, Boscia foetida Schinz subsp. foetida and Boscia albithrunica (Burch.) Gilg & Benedict can be found together with Parkinsonia africana Sonder, Maerua schinzii Pax, Galenia africana L., Cleome foliosa Hook.f. var. foliosa and Acacia montis ustil Merxm. & Schreiber.

The Topnaar of Sesfontein
3.2 Plants in the Sesfontein Topnaar Culture

The most important influence for differences between the plant uses in the Kuiseb area and in Sesfontein is the fact that the Sesfontein climate is more humid than the climate in the Namib. The result is a more abundant vegetation in Sesfontein. Therefore the variety of useful plants is more extended.

Although most Topnaar in Sesfontein have a garden, where they grow wheat and corn, many wild food plants are still gathered from the environment. Different wild seeds are used for the preparation of porridge. Edible tubers and bulbs are collected and many wild fruits are available.

Although there is a hospital in the village, medicinal plants remain widely used. Wood for building purposes and fuel is obtained from the environment.

Other plant uses are similar to the uses practiced by the Kuiseb Topnaar.

3.3 Plant Uses

The plants catalogued below are arranged by family in alphabetic order. Following the scientific plant name, the herbarium specimen, collected by the author, is mentioned (VdE is the abbreviation of Van den Eynden). All specimens are deposited at the National Herbarium of Namibia and duplicates are deposited at the herbarium of the DERUN. If existing, a Nama name is given, as well as the common names in English (E) and/or Afrikaans (A) as have been found in the literature. Each plant is briefly described. All plant uses by the Topnaar are mentioned as well as uses in other areas or by other people, as found in the literature (all consulted books and articles are mentioned in the literature list).

3.3.1 Nonvascular Plants

Alariaceae

Ecklonia maxima (Osbeck) Papenfuss

Nama huri hāb, huri hāb, ḫamisgūb

The description of this marine plant is given on p. 21.

The hollow stem is roasted and ground. The powder thus obtained (mixed with vaseline) is rubbed on wounds and burns. This treatment prevents infection and accelerates healing.

Parmelia hotten

Nama īui īl

The description of the lichen is given on p. 22.

3.3.2 Vascular Plants

Monechma sp. I

Nama blom

This shrub was identified with cystoliths. A decoction of the roots is a laxative.

Ruellia diversifolia

Nama lgomi

Named after A. D. Ruell of France and an author of the Kuiseb river. The flowers are glandular and the nectar can be harvested in linear, ribbed fruit.

Amaranthus din

Nama ḩkhau

Common name: The generic name is wiltable and refers to the country's vegetation, the springs in Sesfontein, the flowers and the leaves are used with onions.
**Lichenes**

*Parmelia hottentotta* (Thunb.) Ach.

Nama | ui || khaob

The description of this lichen is given on p. 22.

The lichen is ground into a powder which is used as a deodorant and perfume.

### 3.3.2 Vascular Plants

**Acanthaceae**

*Monechma sp.* Hochst  [VdE 23.6.c]

Nama | blomhain

This shrub was only found in the vegetative stage on gravel plains near Sesfontein. Identification of the species was therefore impossible. Oblong leaves covered with cystolithes grow in clusters. The flowers are bilaterally symmetric.

A decoction of the roots is drunk to relieve general body pains.

*Ruellia diversifolia* S. Moore  [VdE 21.6.c] (see fig. 33)

Nama | gomigommeibaib

Named after J. Ruel (1479-1537), personal physician of King François I of France and an author of several botanical works, this herb is found on the banks of the Kuiseb river and on rocky soils near Sesfontein. The oval grey-green leaves are glandular and feel very sticky.

Nectar can be sucked out of its beautiful red flowers. The 5 spathulate sepals are unequal in length, thus explaining the specific name *diversifolium* (Lat.). The linear, ribbed fruits contain many seeds.

**Amaranthaceae**

*Amaranthus dinteri* Schinz ssp. dinteri  [VdE 18.6.b, VdE 4.4.k]

Nama | khaubeb

Common name | pigweed (E)

The generic name is derived from the Greek word *amarants* meaning un-wiltable and refers to the plant’s flowers. *Dinteri* is derived from K. Dinter, the first botanist of imperial South West Africa (now Namibia) who published a book on the country’s vegetable "veldkos" in 1912. This low annual herb with very small, inversed, egg-shaped leaves of about 1 cm length grows in humid areas (e.g. along the springs in Sesfontein). Sometimes a dark red spot is found in the centre of the leaves. The flowers are inconspicuous.

The leaves and stems are cooked and eaten as vegetables. They can be fried with onions.
Hyphaene petersiana
Nama \textit{lunib}

Common names makalani palm, ivory palm, durn palm, real fan palm (E), opregte waaterpalm (A)

The makalani palm was introduced in Namibia by the Germans. Several trees grow in the gardens in Sesfontein. The trunk of this palm is swollen in the middle and the tree can grow higher than 20 m. The palmately compound leaves, which have 40-60 leaflets of 1.5-2 cm long, grow in a fan shape. The inflorescence is surrounded by a, up to 2 cm long, spathe. Small male and larger female flowers grow on separate trees. The fruit is a spherical, dark brown drupe, 5-7 cm in diameter, with a fibrous mesocarp and ivory-like central endosperm. The generic name is derived from the Greek word \textit{hyphai}na, to entwine, referring to the fibrous fruits.

The sweet fibrous mesocarp is eaten. The leaves are used to cover roofs. The leaves are divided into thin strips and used for weaving all kind of baskets.

In northern Namibia, Zimbabwe and Zambia this palm is extensively used. Palm wine is made from sap tapped from the trunk. The heart of the palm was in the past eaten as a vegetable. This is now forbidden as the tree is killed by harvesting its heart ornaments. Roots are not used for weaving or twisting them.

\textbf{Phoenix dactylifera}

Nama =\textit{hav}

Common name Many date palms

The Topnaar

A description is given on p. 23.

\textbf{Fockea angustifolia}

Nama =\textit{ikho}

Common name Slender, twin herb indicates, \textit{angus}

The small, cream follicles are used for weaving.

The tubers, \textit{tkho} indicates.

\textbf{Hoodia currori}

Nama =\textit{ikho}

This succulent

The stems are not only a foodstuff, it is at the same time a medicine.

\textbf{Ortanthera alb}

Nama =\textit{arib}

This plant is \textit{arib}

Children enjoy completely, but it is at the same time a medicine.
harvesting its heart. The ivory-part of the seed can be carved into buttons and ornaments. Rope can be made from the leaf fibres by soaking them in mud and twisting them.

**Phoenix dactylifera** L.

Nama

Common names dadel (A), date palm (E)

Many date palms were planted in the gardens of Sesfontein by the Germans. The Topnaar eat the dates fresh or dried.

A description of this tree, as well as its uses by people other than the Topnaar, is given on p. 23.

**Asclepiadaceae**

Milkweed family

**Fockea angustifolia** K. SCHUM

Nama #hawab, #hapab

Common name water root kambroo (E)

Slender, twining, hairy stems arise from a large tuber. As the specific name indicates, *angustus* (Lat.) meaning slender and *folium* (Lat.) leaf, this perennial herb has slender leaves positioned opposite each other and covered with hairs. The small, creamy flowers, growing in axillary clusters, develop into brown mottled follicles.

The tubers, which have a high water content, are eaten roasted.

**Hoodia currori** (Hooker) Decne

Nama #khowab, #khobab

This succulent is described on p. 24.

The stems are eaten raw after the removal of the outer skin and thorns. This is not only a foodstuff but is also eaten as a cough remedy. Because of its bitterness it is at the same time thirst quenching.

**Orthanthera albida** SCHINZ [VdE 3.4.a]

Nama arib

This plant is described on p. 25.

Children enjoy eating the fruits (follicles) of this herb. Young fruits are eaten completely, but in the case of older fruits only the inner part of the peel is eaten (the outer part and the seeds are thrown away).
The Topnaar of Sesfontein

**Figure 34: Pergularia daemia**

**Pergularia daemia** (FORSK.) CHIOV. *var. daemia* [VdE 14.2.d, VdE 6.2.e]

*Nama* !gubib, !guwib, dai!gubib, IgYitama II ob

This plant, described on p. 25, grows in the Sesfontein valley as a creeper.
In cases of backache, incisions are made in the back and the ground root of this plant is introduced into these incisions.
Uses other than those in Sesfontein are also given on p. 25.

**Pergularia daemia** (FORSK.) CHIOV. *var. leiocarpa* (K. SCHUM.) H. HUBER [VdE 11.5.f]

*Nama* !gubib, !guwib, dai-lgubib, Igütama II ob

This plant, described on p. 27, is used in the same way as *Pergularia daemia var. daemia*.

**Asteraceae**

Daisy family

**Antiphiona fragrans** (MERXM.) MERXM. [VdE 23.6.1]

*Nama* doeba!oahe

*Fragrans*, from the Latin verb *fragrare*, to smell, alludes to the fact that the dried, ground leaves of this shrub can be used as a body powder.

The shrub is glandular and grows in the mountains around Sesfontein. The alternate leaves are bipinnately parted and its yellow-purple flowerheads are homogamous.

A decoction of the whole plant is drunk to relieve chest pains.

**Helichrysum ton**

*Nama* lurue

The generic name *Helichrysum* (Gk. sun and chry (heads, which are) with felty, woolly hairs. Some branch...
**Helichrysum tomentosulum** (Klatt) Merxm. *ssp. aromaticum* (Dinter) Merxm.

**Nama** !urueb

The generic name of *Helichrysum* refers to the golden-yellow flowers (*helios* (Gk.) sun and *chrusos* (Gk.) gold), arranged in cylindrical homogamous flowerheads, which are surrounded by white-reddish bracts. The whole plant is covered with felty, woolly hairs (*tomentum* (Lat.) is translated as felty). The leaves are linear, 10-50 mm long and 2-10 mm wide.

The dried, ground flowerheads are used as a perfume, hence the name *aromaticum*.

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*Figure 35: Catophractes alexandri*

**Bignoniaceae**

Jacaranda family

**Catophractes alexandri** D.Don  [VdE 24.6.h]

**Nama** !gawas, !gabas

**Common names** swartdoring, skaapbos (A)

Sir J.E. Alexander was in 1836 the first person to collect this tree, during his journey to Walvisbay. This 2 m high shrub is covered with dense, white, felty hairs. Some branches end in a spine. The small, inversed egg-shaped leaves (1-3 mm long and 0.8-3.5 mm wide) have a dark green color on the upper side and a lighter color on the underside. They are covered with dense, felty hairs. The flowers are tubular, 4-6 cm long, with a yellow color.

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14.2.d, VdE 6.2.e]

illey as a creeper.

the ground root of

to the fact that the

und Sesfontein. The

flowerheads are ho-

ains.
by 0.4-1 cm) have serrated margins. White, about 10 cm long, flowers develop into woody elliptic fruits of 4-8 cm long and 2 cm wide, with a warty surface. The fruits contain flat winged seeds with a tuft of long hair. This shrub grows in the mountains around Sesfontein.

A decoction of branch or root bark is drunk or bark itself is chewed to cure colds.

The Bergdamara chew the roots to relieve stomach pains.

**Boraginaceae**

Heliotrope family, Forget-me-not family

*Cordia gharaf* (Forsk.) Ehrenb ex Ascherson [VdE 20.6.a]

*Nama* laes, || khôs

The genus *Cordia* is named after V. Cordus (1515-1544), author of some botanical publications. This shrub or small tree has elliptical leaves of 3-10 by 1.5-5 cm, covered with very short rough hairs. The tubular, white-pink flowers grow in terminal cymes.

The orange elliptic, about 1 cm long fruits are eaten fresh. This tree is found in riverbeds near Sesfontein.

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![Figure 36: Cordia gharaf](image)

The plant is used, however which

*Commiphora gi*

*Nama* laoa

The name *Commiphora* is some *Commipho*

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ian National Her

brown, non-flake around Sesfontein

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The twigs are

*Commiphora kr*

*Nama* lana

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A decoction of

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*Caesalpinia rubr*

*Nama* auaurc

*Caesalpinia* is

of medicine and b
The Topnaar of Sesfontein

The plant is used as a protection against rabies by the Ovambo. It is not mentioned however which part of the plant they use. In Tanzania, the leaves and bark are used as a remedy for leprosy. The Masai chew the root as an abortifacient and wash inflamed eyes of cattle with a decoction of root and bark.

**Burseraceae**
Myrrh family

*Commiphora gieissii* V.D. WALT [VdE 23.6.c]

Nama aoab

The name *Commiphora* is derived from kommi (Gk.), meaning sticky gum, as some *Commiphora spp.* of Arabia and Somalia yield a precious resinous gum. This specific *Commiphora* is named after W. Giess, former director of the Namibian National Herbarium. It is a slender shrub of about 2 m high, with a gold-brown, non-flaking bark and slender flexible branches, which is found in the hills around Sesfontein. The tree has trifoliate leaves. The inconspicuous unisexual flowers, growing on different trees, develop into spherical to ellipsoid leathery drupes, which open with 2 valves when ripe.

The twigs are used as fire-sticks.

*Commiphora kraeuseliana* Heine

Nama aana

This up to 2 m high *Commiphora* has a thick, swollen trunk with a papery flaking bark. The shrub is found in the hills around Sesfontein. The compound, clustered leaves have 6-8 pairs of very small leaflets (12-20 by 0.5 mm). The inconspicuous flowers, growing in clusters, are hairy and develop into fleshy drupes which open with 2 valves when ripe. The specific name goes back to the paleobotanist R. Krausel (1890-1966), who visited South West Africa in 1953 and wrote several papers on fossil plants of this area.

A decoction of the bark or branches is drunk to cure heart problems, palpitations, chest pains, coughs and colds. Washing oneself with water in which twigs of this shrub were soaked is believed to bring luck.

**Caesalpiniaceae**
Cassia family

*Caesalpinia rubra* (Engler) BRENAN [VdE 23.6.k]

Nama auautoi

*Caesalpinia* is named after A. Cesalpini (1519-1603) of Pisa, an academic of medicine and botany and the personal physician of Pope Clemens VIII. This
reddish-brown shrub, to which rubra refers, from the Latin meaning red, can attain a height of 3 m and is very fragrant. Its twigs bear bipinnate leaves, composed of 5-12 pairs of pinnae, and up to 18 pairs of small reddish leaflets supported by thorny stipules. The red flowers are arranged in terminal racemes up to 20 cm long. The fruits are reddish-brown, teardrop-shaped, beaked, flat pods covered with a few thorns and 2-seeded. This shrub grows in the mountains near Sesfontein.

The dried, ground leaves are used as a perfume.

**Colophospermum mopane** *(Kirk ex Benth.) Kirk ex Leonard*

[VdE 21.6.m]

Nama *tsaurabais*

Common names: mopane, ironwood (E), mopani (A)

The mopane forms the main vegetation of the Kaokoveld savannah and is common around Sesfontein and along some rivers in the northern Namib. It is not found in the Central or Southern Namib. Its specific name is the vernacular name which the local tribes give to this tree. The tree or bush may be up to 10 m high. The leaves are composed of 2 sickle-shaped glandular leaflets, 5 to 12 cm long. These two leaves together are heart-shaped. The greenish-yellow flowers are arranged in racemes. The leathery, yellow-brownish, kidney-shaped pods are flat, 3-5 by 2-3 cm, single seeded and indehiscent. The name *Colophospermum* means oily seed in Greek.

All parts of this tree are widely used in Sesfontein. The wood is used for carving, also for the construction of houses, kraals, fences, sheds, etc., as well as for fuelwood. A decoction of the leaves is drunk to relieve stomach pains. The body can also be washed with this decoction or the decoction drunk to cure colds. In cases of headache/eyepains, the head/eyes are washed with a decoction of the leaves and thereafter the boiled leaves are put on the head/eyes. Twigs are chewed to clean the teeth. Often aphids parasite the mopane leaves and thus produce secretions. These dried secretions, which contain sugar and gum, are collected and eaten.

The mopane plays a very important role in the culture of the tribes of northern Namibia (Ovambo and Himba). Only medicinal uses however are listed here. Chewed leaves are placed on wounds to stop bleeding. The leaves are thought to have antiseptic properties as well. A resinous gum is exuded from the branches when they are heated. This gum is applied to infected wounds. A wood decoction is used in the Transvaal to treat syphilis and inflamed eyes. The Bushmen drink a bark decoction for diarrhoea.

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**Boscia albitrun**

Nama *lhu*; Common name: *witgatboom*

The description:
The berries, stems and leaves are used to make a fresh juice to drink.

Other uses:

**Boscia foetida**

Nama *xau*

Common name: *witgatboom*

The description:
A decoction of the roots is used for dysentery.

Further uses:
meaning red, can attain leaves, composed leaflets supported racemes up to 20 naked, flat pods covered mountains near

This is common Namib. It is not the vernacular name be up to 10 m high. s, 5 to 12 cm long. Yellow flowers are ar
phospermum means

Figure 37: Colophospermum mopane

Capparaceae
Caper family

*Boscia albitrunca* (Burch.) Gilg & Benedict  [VdE 20.6.d]  
Nama |hunib|  
Common names  witgat, witstamboom (A), caper bush, shepherd’s tree (E)  
The description of this tree is given on p. 32.  
The berries, soaked in water, mixed, and their seeds removed by straining, give a fresh juice to drink.  
Other uses are also given on p. 32.

*Boscia foetida* Schinz ssp. foetida  [VdE 19.6.j, VdE 13.2.c]  
Nama  xaubelhunis|  
Common names  stinkbush, smelly shepherd’s tree (E), stinkdoorn, witgatboom (A)  
The description of this tree is given on p. 32.  
A decoction of the leaves and twigs is drunk as a cold and stomach pain remedy.  
Further uses of this tree are mentioned on p. 32.
Maerua schinzii  Pax   [VdE 13.2.h, 14.2.a, 21.6.c]
Nama  goradab, goardab
Common names  kwarda, lammerdrol (A)
A description of this tree is given on p. 33.
The juice, or a decoction of the leaves is dripped into the ears to relieve earache.
Drinking a leaf decoction cures coughs.
Other uses of this tree can be found on p. 33.

Combretaceae
Combretum family

Combretum imberbe  Wаре  [VdE 24.6.c]
Nama  lhâs
Common names  leadwood (E), menshout, hardelkoolboom (A)
It is in the plains around Sesfontein, that this large, up to 20 m high tree, with
rough grey-brown bark, is growing. The opposite, elliptical leaves are scaled on
both sides. The greenish-yellow, tetramericous flowers, also scaled on the outside,
develop into 4-winged, greenish-yellow pods of 1.5-2 cm in diameter, containing a
single seed.
A decoction of the leaves is drunk to relieve chest pains.
The Ovambo drink a root extract mixed with water for stomachache. In Zim-
babwe a root infusion is drunk to treat bilharziasis and diarrhoea. The smoke of
burning leaves is inhaled to cure coughs and colds in South Africa. This tree also
yields an edible gum.

Terminalia prunioides  Lawson  [VdE 23.6.a]
Nama  kheas
Common names  sterkbos, hardekool, deurmekaar (A)
This up to 9 m high bush or tree has greyish, oval leaves of 2.5 by 1-2.5 cm,
which have short hairs on both sides. These leaves, as well as the flowers grow at
the end of the branches (terminus (Lat.), top, border). The red-brown fruits are 2-
winged and flattened, about 3.5 by 6 cm. The specific name refers to the plum-red
colour of the fruits (prunus (Lat.), plum).
The roots of this tree, found in the mountains of Sesfontein, are chewed or a
decocction of them is drunk to cure colds. The leaves are added to tea to improve
its flavour. The wood is used as a fuel.
The bark is chewed by the Himba for coughs, sore throat and stomach cramps.
In Botswana a root decoction is drunk for constipation. The Damara drink this
decocction as a cough remedy.

Coccinia sp.  Wight
Nama  lhâb
This perennial, he
the similarity of its ber
red pigment is obtained
unisexual flowers, four
to 9 cm long, red fruits.
The tuberous roots:
s to relieve earache.

0 m high tree, with leaves are scaled on the outside, meter, containing a
machache. In Zim- noea. The smoke of frica. This tree also

of 2-5 by 1-2.5 cm, the flowers grow at brown fruits are 2-
ers to the plum-red
in, are chewed or a d to tea to improve
id stomach cramps. Damara drink this

Figure 38: Terminalia prunioides

Cucurbitaceae
Cucumber family

Coccinia sp. Wight & Arn.
Nama |hâb|
This perennial, herbaceous climber with simple tendrils, derives its name from the similarity of its berries' colour to the colour of the coccus, a louse from which a red pigment is obtained (cochenille). The leaves are pentagonal to 3-7-lobed. Yellow unisexual flowers, found on separate plants, develop into spherical to ellipsoid, up to 9 cm long, red fruits.
The tuberous rootstock is eaten roasted.

Cyperaceae
Sedge family

Cyperus marginatus Thunb. [VdE 19.6.c, VdE 23.3.e, VdE 8.2.f, VdE 12.5.e]
Nama |harub|
A description of this grassy herb is given on p. 38.
The stalks are used to thatch roofs.
Cyperus sp. (C. fulgens C.B. Clarke or C. usitatus Burch.)

Nama !hanni

Common name uintjie (A)

This grassy herb has subterrestrial stolons, ending in bulbs of 8-25 mm in diameter. It can therefore only be C. fulgens or C. usitatus. The leaves are as long or longer than the 10-60 cm high stems. The flowers are arranged in several spikelets with winged axils.

The bulbs are eaten raw or boiled.

Cyperus rotundus L. [VdE 19.6.h]

Nama !haren, Iarebes

Common names nut-grass (E), uintjie (A)

The dried, ground tubers of this 30 cm high herb are very fragrant and therefore used as a perfume. These small, nut-like tubers grow at the end of slender, woody rhizomes and are edible. The specific name refers to their spherical shape. The flowers are arranged in several spikelets.

These tubers are widely used in Africa and Asia as a stimulant, to relieve stomach pains, indigestion, to cure urinary problems, malaria, etc. and also as a perfume. In Mali they are eaten as an aphrodisiac. In Tanzania a cough remedy for children is made from them.

Ebenaceae

Ebony family

Euclea pseudobebenus E. Meyer ex. A.DC. [VdE 17.1.b]

Nama tsabis, tsawis

Common names black ebony, Cape ebony, false ebony (E), swartebbe, basterebbehout (A)

A description and non-Topnaar uses are given on p. 38.

The wood of this tree is used by the Topnaar as a fuel, for the construction of houses and kraals and in the manufacture of utensils.

Euphorbiaceae

Spurge family

Ricinus communis L. [VdE 31.3.n, VdE 21.6.p]

Nama !khēras

Common names castor bean (E), kasterolieboom (A)

A description of this plant, growing near the Sesfontein springs, is given on p. 39.
The leaves are arranged in several rings, is given on p. 73.

Figure 39: Ricinus communis

Figure 40: Sesbania sphaerosperma
In cases of mumps or toothache, the *Ricinus* seeds are ground, boiled and rubbed onto the swollen cheek. This is covered with a warmed *Ricinus* leaf and a compress. Instead of the seeds, a fat can be used.

Other uses can be found on p. 39.

**Fabaceae**  
Pea family

*Cullen obtusifolia* (DC) Stirton  
[VdE 15.2.f, 4.4.n, 7.2.h.]

Nama *honab*  
This herb is described on p. 40.

The sweet-smelling leaves or the whole plant can be added to tea for flavouring. This tea whets the appetite. Adding the root to milk gives it a good taste and curdles it into a kind of yoghurt.

*Sesbania sphaerosperma* Welw.  
[VdE 21.6.g]

Nama  
This 3 m high shrub is found in the Sesfontein hills. It has even-pinnate leaves of 10–30 cm long, composed of 10–40 pairs of leaflets. Small spines grow on the leaf axis. The yellow, papilionaceous flowers are purple marbled and grow in racemes eventually developing into characteristic long, straight pods of 13-25 by 0.5 cm. These pods are beaked at the end. They split open with 2 valves to release the many spherical orange seeds, which incidently explain the species name: *sphaero* and *sperma* meaning ball and seed respectively in Greek. The pod is divided by septae, growing 5 mm from each other.

The roasted, ground seeds can be used as a substitute for coffee.

**Geraniaceae**  
Geranium family, ranesbill family

*Monsonia sp.*  
Nama *harapab, rabab, bosui (seeds), surube (unripe seeds)*  
This plant is described on p. 41.

The seeds of this plant are collected by ants. The Topnaar gather these seeds from the ant nests and add them to tea or coffee for a better flavour, after roasting and grinding them. A porridge can be boiled from the seeds or they can be baked and eaten. The unripe seeds are also ground and added to porridge, giving it a fatty taste. Also the leaves are used to improve the flavour of tea.

*Aloe hereroensis*  
Nama *auko*  
Triangular, grey brown thorns on trunk. Grows in the moon. Herero territory, a few cm long are arranged. A decoction of the same decoction is very good for stomach pains and improving appetite.

*Strychnos sp.*  
Nama *-  
Common name -  
Only the dried species could then be ground and used.

The pulp of the fruit contain strychnine.

*Acacia tortilis* (F 18.6.c)  
Nama *inarab  
Common name -  
en-steek (A)  
A description of the plant.

This tree is very useful for people.

The Topnaar grind
Liliaceae

*Aloe hereroensis* **Engler**

*Nama* aukoreb

Triangular, grey-green leaves of 30 cm long and 6 cm wide, with 3-4 mm long brown thorns on the margins, grow in rosettes on a short erect or horizontal stem. Some plants are stemless. The underside of the leaves is white spotted. This plant grows in the mountains of Sesfontein and on the Brandberg. It is common in the Herero territory, as the specific name explains. The yellow-red flowers of about 3 cm long are arranged in a branched, up to 1 m high inflorescence.

A decoction of the leaves is drunk as a remedy for chest and heart pains. The same decoction is given to dogs to treat rabies.

The Herero drink *Aloe* sap mixed with warm water as a remedy for chest and stomach pains and to treat gonorrhoea.

Loganiaceae

*Strychnos sp.* **L.**

*Nama* -

Common names kaffir orange (E), klapperboom (A)

Only the dried fruits of this tree were found during present research. The exact species could therefore not be identified. The spherical, fleshy, many-seeded fruit of 6-12 cm diameter, with a thick, woody, orange outer shell grows on a tree with opposite leaves and very small flowers.

The pulp of the fruit is eaten raw. The seeds are extremely toxic since they contain strychnine.

Mimosaceae

*Acacia tortilis* (Forsk.) Hayne *ssp. heteracantha* (Burcill.) Brenan **[VdE 18.6.c]**

*Nama* narab, naras

Common names umbrella thorn (E), basterkameeldoring, krulpeul, haaken-steek (A)

A description of this tree is given on p. 47 together with its uses by other people.

This tree is very common in the Sesfontein valley, where it grows on sandy soil. The Topnaar grind the pods, remove the seeds and boil the remaining pulp with...
milk, blood or water into an edible porridge (corn or wheat can also be added). The pods are also eaten by their goats. The wood is used as a fuelwood but produces a lot of smoke. The gum, called hairan in Nama, is edible.

**Moraceae**  
Fig and Mulberry family  

*Ficus sycomorus* L.  
Nama *Tamomas*  
Common names sycamore fig (E), wildevye, gewone trosvy (A)  
This tree is described on p. 48. Several large fig trees grow in the gardens of Sesfontein.  
The wild figs are eaten fresh or dried. The raw fruits can be put in a jar with sugar, which makes a kind of jam. The dried and ground fruits are used as a substitute for coffee.  
Other uses are mentioned on p. 48.

**Myrothamnaceae**  

*Myrothamnus flabellifolius* WeR.  
Nama *Ikhotorotorosen, totosen, Ikhotororsen, Ikhotgorgosen*  
Common names resurrection bush (E), teebossie (A)  
Leaves and stems of this so-called resurrection bush are added to tea. They are also used as a spice.  
A complete description is given on p. 48, together with many other uses.

**Olacaceae**  
Sour Plum family  

*Ximenia americana* L.  
Nama *Teros*  
Common names sour plum (E), kleinsuurpruim, doring pruim (A)  
*Ximenia* is named after Father F. Ximenez (1666-1721), a Dominican who studied the languages, manners, religion and natural history of Central America. This much-branched spiny shrub, which is up to 3 m high, bears straight spines and oval shaped, fleshy, bright green leaves of 2.5 by 1-2.5 cm in size. These are often folded along the midrib. The flowers are very small, greenish-yellow in colour and grow in groups in the leaf axis. This tree grows wild in the gardens of Sesfontein.  
The ellipsoid to ovoid, yellow to red fruits of 3 cm long are eaten raw.  
In South Africa lemonade or a beer can be made from the fruits. The Ovambo and Himba use the oil extracted from the seeds as a cosmetic or to soften leather.

Many medicinal uses: uterine diseases; using bilharziasis, stomatitis, leprosy; the skin for fever; use in diabetes and ringworm and toothache.
also be added). The wood but produces

vy (A)

w in the gardens of be put in a jar with
fruits are used as a

gösen

added to tea. They any other uses.

pruim (A)
dominican who stud-
entral America. This straight spines and
size. These are often yellow in colour and
dens of Sesfontein. e eaten raw.
fruits. The Ovambo or to soften leather.

Many medicinal uses exist all over Africa, e.g. chewing the leaves to treat venereal diseases; using the root for diarrhoea, venereal diseases, sleeping sickness, bilharziasis, stomach pains and as a poultice for headaches; rubbing the bark on the skin for fever; using a mixture of ground bark and root as a dressing for ulcers and ringworm and drinking a leaf decoction as a remedy for cough, fever, wounds and toothache.

Figure 41: Ximenia americana

Figure 42: Ziziphus mucronata

Figure 43: Setaria verticillata
Pedaliaceae
Sesame family

Harpagophytum procumbens (Burchell) DC ex Meissner
Nama khuripe khams

Common names: grapple vine, devil’s claw (E), duiwelsklou (A)

The potato-like tubers of this creeper are used worldwide as a treatment for arthritis and to dissolve kidney and gallstones. They are gathered locally and exported to Europe, where they are made into a tea. The Topnaar of Sesfontein drink a decoction of the tubers or chew them to relieve stomach or post-natal pains. Before gathering the tubers, a needle or button is put in the soil to ‘buy the tubers from the earth’, the belief is that one will not find tubers otherwise.

The oval leaves are pinnately lobed and covered with glandular hairs, most dense on the leaves’ underside. The pink-purple flowers may become as long as 7 cm. The oval, flat fruit that develops has 2 rows of 8 cm long thorns with strong barbs. The specific name refers to the creeping habitus of the plant (procumbere (Lat.), to bend forward, to lay down).

Other people in Namibia use the tubers as a treatment for fever, indigestion and diabetes. An ointment made from the fresh tuber is applied to ulcers, boils and external cancer growths. In Botswana a tuber decoction is drunk to cure any infectious disease and treat female infertility.

Setaria verticillata
Nama khareb

Common name: typical for this long, which resembles a seta (brush). The hair and wool of an animal.

Sometimes seeds 25 cm long and 2 mm wide. The soil is very moist.

The seeds are gathered and eaten.

Berchemia discolor
Nama hûis

Common name: known where the word disolates into leaves which ripen from branches. These fruits are ground fruits. The orange dye for baskwes is made from them.

A leaf decoction is made from the leaves which ripen from branches. These fruits are ground fruits. The orange dye for baskwes is made from them.

Periplocaceae

Curroria decidua Planchon ex Hooker fil & Bentham [VdB 23.6.h]
Nama arihaib, linis

Common name: bokhorinkie (A)

This upright shrub has red-brown branches with lanceolate leaves, (30-50 mm by 5-20 mm) which grow in clusters. These leaves are shed yearly (deciduous (Lat.), falling off). Inconspicuous greenish-white-violet flowers are found solitary or grouped in the leaf axils. The fruits are solitary or paired, 7-10 cm long and 6-9 mm wide follicles.

A decoction of the roots is given to rabid dogs.

The Himba make a strong laxative from the roots. This is also used to treat venereal diseases, to expel the afterbirth after parturition and to prevent constipation.
Poaceae
Grass family

*Setaria verticillata* (L.) BEAUV. [VdE 18.6.a] [see fig. 43]

Nama  ≠areb

Common names  bur-bristle grass (E), klitsgras (A)

Typical for this grass are the dense purple-green inflorescences of up to 16 cm long, which resemble brushes. The name *Setaria* is derived from the Latin word *seta* (brush). These inflorescences easily stick to clothes of passers-by and the hair and wool of animals. The plant is an annual and becomes up to 1.2 m high. Sometimes secondary roots develop from the lower nodes. The hairy leaves are up to 25 cm long and 22 mm wide. It grows near the springs of Sesfontein, where the soil is very moist.

The seeds are ground and boiled in water, milk or fat to form a porridge.

In South Africa, an alcoholic beverage is brewed from the seeds and hats are weaved from the stalks. This grass is sometimes cultivated.

Rhamnaceae
Buffalo-thorn family

*Berchemia discolor* (KLOTSCH) HEMSL. [VdE 19.6.f]

Nama  ≠hûis

Common names  bird plum, wild date (E), wilde dadel (A)

This up to 12 m high tree grows in the mountains around Sesfontein. It is not known where the name *Berchemia* comes from. *Discalor* is derived from the Latin words *dis* (separation) and *color* (colour), meaning from different colour, referring to the leaves which are dark green on the upperside and pale green below. Furthermore the leaves are elliptical and waxen. The small yellowish-green flowers grow in small clusters from the leaf axils and develop into fleshy, egg-shaped drupes which ripen from bluish-green to pale orange.

These fruits are eaten fresh or dried. They can also be cooked in milk and eaten.

This tree is common on the highlands of southern Africa. The fruits can be fermented into an alcoholic drink. A sort of cake can be made from the dried, ground fruits. The Ovambos use the bark as a dark brown dye and the fruit as an orange dye for basketry by boiling the material with the bark or fruits respectively. A leaf decoction is applied to the head for headaches or other illnesses. In Zimbabwe the body is washed with a root decoction to relieve general body pains. In northern Namibia the mouth is rinsed with the fresh fruit juice, boiled with water, for bleeding gums.
**Thamnosma africana**

Nama  **kha**

Common names  buffalo thorn, shiny leaf (E), wag-'n-bietjie, blinkblaar, haak-en-steek (A)

This much-branched, thorny shrub or rarely tree of up to 12 m high, with zigzagged young twigs, grows on riverbanks. The oval, up to 6 cm long leaves, are asymmetrical at the base and each leaf is subtended by a pair of thorns of which one is bent so that it hooks you and the other is straight so that it stabs you as you attempt to unhook yourself from the first (this explains the Afrikaans name 'haak-en-steek', meaning hook and stick). The small yellow-green flowers are star-shaped and grow in clusters in the leaf axils.

The bright red to red-brown, round fleshy fruits, 1-2 cm in diameter, with a single hard pip inside, are eaten raw or boiled.

The Ovambo brew an alcoholic beverage from the fruits. A mixture of leaves with cold water is drunk to cure diarrhoea, fever and malaria. Sore eyes are washed with an infusion of the leaves. A root decoction is a treatment for dysentery. In southern Africa, pounded fruits are roasted and ground as a coffee substitute. The tree is used medicinally for several illnesses, such as pneumonia (leaves), stomach and intestinal complaints (root), cough (bark), irregular menstruation (root), glandular swellings (root, leaf), venereal diseases (root), snake bites (root), ... .

**Rutaceae**

Citrus family

*Ziziphus mucronata*  **WILLD**  [VdE 19.6.4] [see fig. 42]

Nama  **tarsos**

Common names  buffalo thorn, shiny leaf (E), wag-'n-bietjie, blinkblaar.

This shrub is

*Zanthoxylum ovatum*

Nama  **peper**

This plant's name (wood), therefore its high tree are pre the petioles. Odd-pinnate leaflets grow on different trees.

Fruits and see decoction of the fr...

*Salvadora persica*

Nama  **khoris**

Common names  This tree is desc The fruits, which can be dried, rehydr food. A decoction of...

More uses are n...

*Sutera corymbosa*

Nama  **blomhais**

This annual or p all plant parts. The le each other. Tubular r...
Zanthoxylum ovatifoliolatum [ENg; U:R] 15'1N

Nama | peperhais

This plant’s name is derived from the Greek words xanihos (yellow) and xulon (wood), therefore indicating a tree with yellow wood. The branches of this up to 3 m high tree are protected by strong curved spines, smaller spines may be found on the petioles. Odd-pinnate leaves with 2-4 pairs of oval (as ovatifoliolatum indicates). sessile leaflets grow at the end of the twigs. The unisexual flowers probably grow on different trees. The fruit is an orange spherical capsule, 5-6 mm in diameter, covered with large glands (black spots on the fruit), which opens with two valves and contains one round, bluish-black seed.

Fruits and seeds are dried and ground for use as body powder/perfume. A decoction of the fruits is drunk to relieve throat pain. The Himba drink the same decoction in the case of stomach complaints.

Thamnosma africana [Engler] VdE 5.4.h

Nama | khanab

Common name | flea bush (E)

Drinking a decoction of the whole herb induces vomiting and is used to relieve stomach pains and nausea.

This shrub is described on p. 50. More uses are given there as well.

Zanthoxylum ovatifoliolatum (Engler) Finkelstein

Nama | peperhais

This plant’s name is derived from the Greek words xanthos (yellow) and xulon (wood), therefore indicating a tree with yellow wood. The branches of this up to 3 m high tree are protected by strong curved spines, smaller spines may be found on the petioles. Odd-pinnate leaves with 2-4 pairs of oval (as ovatifoliolatum indicates). sessile leaflets grow at the end of the twigs. The unisexual flowers probably grow on different trees. The fruit is an orange spherical capsule, 5-6 mm in diameter, covered with large glands (black spots on the fruit), which opens with two valves and contains one round, bluish-black seed.

Fruits and seeds are dried and ground for use as body powder/perfume. A decoction of the fruits is drunk to relieve throat pain. The Himba drink the same decoction in the case of stomach complaints.

Salvadoraceae

Mustard Tree family

Salvadora persica L. [VdE 23.3.a]

Nama | khoris

common names | tooth-brush tree, salt bush (E), kerriebos (A)

This tree is described on p. 51.

The fruits, which smell like cress, are edible but cause diarrhoea. The fruits can be dried, rehydrated and rolled into balls. This is a very nutritious knapsack food. A decoction of the roots is drunk as a cold and cough remedy.

More uses are mentioned on p. 51.

Scrophulariaceae

Sutera corymbosa (Marloth & Engler) Hiern [VdE 23.6.j, VdE 23.3.j]

Nama | blomhain

This annual or perennial shrub is very sticky because of the glands covering all plant parts. The leaves are oval-round, have dentate margins and grow opposite each other. Tubular pink-lilac flowers grow in inflorescences called cymes, corym-
bus in Latin. This plant grows on moist areas in the mountains near Sesfontein. A decoction of the roots is drunk to relieve all body pains. The roasted, ground root is applied to burns.

Figure 45: Sutera corymbosa

Figure 46: Datura innoxia

**Solanaceae**

Potato family, Nightshade family

**Datura innoxia** **Miller** [VdE 19.6.e]

Nama ǀ **ôhais**

Common names: thorn apple (E), stinkblaar (A)

The herbaceous alien *Datura innoxia* is common in all riverbeds and rivervalleys of the Namib. It grows 1 m high or higher. The large oval leaves with irregular margins have a foul smell. The tubular, funnel-shaped white flowers are up to 20 cm long and grow solitary in the leaf axis. The fruit is a spiny, pendant, egg-shaped capsule, opening with 4 valves and releasing numerous black seeds at maturity. The generic name is derived from an Indian vernacular name.

A warm leaf is put onto sores in the armpit to draw out pus.

The Ovambo give a root decoction to insane people to quieten them. In South Africa, a decoction of the plant has been used as an intoxicant, sometimes with fatal results.

**Solanum incanum** **L.**

Nama ǀ **soropees**

Common names: bitter apple (E), bitterappel (A)

The appearance of the leaves of this 1 m high shrub is grey (*incanus* (Lat.) grey), due to the covering with white stellate hairs. Their shape is elliptic, 5-18 by 3-10 cm. Twigs, petioles and calyx are thorny. The lilac flowers develop into yellow berries of 2-3 cm in diameter.
A decoction of the root is drunk to treat venereal diseases and urinary problems.

All over Africa this plant is used medicinally to treat various ailments, such as external tumors, pneumonia, toothache, dandruff, liver troubles, earache, headache, backache, snake-bites, venereal diseases, ....

**Withania somnifera** (L.) Dunal [VdE 21.6.k, VdE 17.4.c]

Nama || auema

Common names bitterapplelefe, geneesblaar, vuilsiektebos (A)

This erect herb to shrub, up to 1.5 m high, covered with stellate hairs, is found near the springs of Sesfontein. This plant has oval, 3-15 cm long leaves and cup-shaped flowers which grow in axillary umbels. The red spherical berries are enclosed in a bladder-shaped inflated green calyx. As the specific name somnifera (Lat.), which means sleep-inducing implies, this plant has a hypnotic effect.

The berries are used by the Topnaar as beads. The ground root is sniffed to treat nose cancer.

The Himba give a root decoction to their cattle as a remedy for diarrhoea. It has been proved that the leaves and root have an antibiotic and antiviral effect. The different tribes of South Africa use all plant parts to cure various diseases.

**Sterculiaceae**

Cacao family

**Sterculia africana** (Lour.) Fiori

Nama huina

Common name african star-chestnut (E)

---

A decoction of the root is drunk to treat venereal diseases and urinary problems.

All over Africa this plant is used medicinally to treat various ailments, such as external tumors, pneumonia, toothache, dandruff, liver troubles, earache, headache, backache, snake-bites, venereal diseases, ....

**Withania somnifera** (L.) Dunal [VdE 21.6.k, VdE 17.4.c]

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The berries are used by the Topnaar as beads. The ground root is sniffed to treat nose cancer.

The Himba give a root decoction to their cattle as a remedy for diarrhoea. It has been proved that the leaves and root have an antibiotic and antiviral effect. The different tribes of South Africa use all plant parts to cure various diseases.
This large tree, growing in the mountains of the central and northern Namib, has long-stalked, heart-shaped leaves, covered with stellate hairs. The unisexual flowers grow in panicles on the same tree. The fruits are thick, dark brown woody follicles, covered with tomentose stellate hairs and grow in clusters. The flowers and leaves of some Sterculia spp. smell foul, as the generic name, derived from the Latin word stercus, manure, expresses.

A decoction of the fruit is drunk to relieve pregnancy and post-natal pains.
Himba women drink a bark decoction to relieve post-natal and stomach pains.

**Tecophilaeaceae**

**Walleria nutans** **Kirk**

Nama ǁ nūs

This annual plant of 10-40 cm high has lanceolate leaves. Sometimes small prickles grow on the main nerves of the leaves and on the stems. The lavender-blue, solitary flowers resemble potato flowers.

The potato-like tubers, of about 4 cm diameter, are roasted in hot ashes and eaten whole or mashed. This is very filling foodstuff and is available for 10 months per year.

![Grewia tenax](image)

**Figure 48: Grewia tenax**

**Grewia tenax**

Nama ǁ ǂñus

This shrub, with cian and plant an elliptic, opposite hairs and have se than sepals, devel ameter.

These fruits are

**Cyphostemma sp.**

Nama ǁ kowas

Common name
The Namibian (bark is pale-colour lowish to pale green

The oval to sphen can be squeezed ou

3.3.3 Unidentifi

Due to the abse period, some plants (tifiable. Only the Na scientific name couk name. These plants clicks is l, l, l, ≠ res

aihāb

A decoction of t treat liver diseases.
Grewia tenax (L’Oize)

Nama = taus

This shrub, which grows along dry riverbeds, is named after the English physician and plant anatomist N. Grew (1641-1712). It grows up to 3 m high and bears elliptic, opposite leaves of 1.5-4 by 1-2.5 cm, which are covered with short stellate hairs and have serrated margins. The solitary white flowers, with shorter petals than sepals, develop into orange-red, deeply 4-lobed berries of about 1 cm in diameter.

These fruits are eaten raw.

Cyphostemma sp. (Planchon) Alston

Nama = kowas

Common name = cobas tree (E)

The Namibian Cyphostemma species are usually thickset, succulent trees. The bark is pale-coloured and peeling. The leaves are large and trifoliate. Small, yellowish to pale green, tetramerous flowers grow on a succulent stalk in cymes.

The oval to spherical, fleshy fruits of about 1 cm long are eaten raw. The juice can be squeezed out of the fruits and drunk.

3.3.3 Unidentified Plants

Due to the absence of rains and significant floods in the area during the study period, some plants (mostly annuals) could not be found in the field or were unidentifiable. Only the Nama name and the local uses of these plants are known. The scientific name could also not be found in literature when starting from the Nama name. These plants are listed here in alphabetic order. The order used for the clicks is 1, 2, 3, 4 respectively.

aihaib

A decoction of the root of this small shrub which has red twigs is drunk to treat liver diseases.
anto

The wood of this large tree with large, oval leaves is used for carving.

aueb, aub

This is a large tree with oval opposite leaves. A decoction of the ground root or wood is drunk to relieve stomach pains and to treat coughs, heart diseases and lack of appetite. The wood is used for carving, also to carve beads for necklaces.

This tree might be Spirostachys africana (Eiseb et al. 1991).

kaihais

The ground bark of this plant is used as a perfume.

sapibes

The raw fruits, composed of 3 or 4 white-brown berries, are eaten.

sàn

This is a mixture of grass and other seeds, collected by ants and gathered from ant nests. Porridge is boiled from it. Also beer can be brewed from these seeds. For this hot water and sugar are added to the seeds and this mixture is then fermented.

sirin

The dried, ground stems of this plant are used as a perfume.

ui'ai

The tubers are eaten raw or boiled. According to the Topnaar this plant resembles a corn plant.

hus

This 2 m high tree has small rhombic leaves and a flaky yellowish-green bark, which is red on young twigs. The wood is used for carving and making furniture. A decoction of the leaves and bark is drunk to treat heart diseases. The gum (hairan) secreted from the branches, mixed with oil or fat is applied on the body as a perfume. The powdery corn wood (lota) is used as a body powder and a decoction of this wood is drunk to relieve post-natal pains and cure intestinal problems. A decoction of the root is also drunk to relieve post-natal pains. The dead, rotten wood (l'gabe) is used as a body powder and baby powder for boys.

lgaria'daia

Only the very small gray-white seeds of about 1 mm in diameter of this grass were collected. These seeds are ground and used to prepare a porridge.

l'na=khawab

A decoction of this plant is used to relieve stomach pains.

l'basai

This is a fungus powder.

=namin

Only the brown outer shell were prepared from the seeds. Fat can be grows on a creeping seeds. Fat can be...

3.4 Non-plant

Beer is brewed from... This honey beer is the same treatment.

The powder obtained is rubbed on the face...

Ash from the fire...

Several animal parts are...

The powder obtained is wrapped in this skin is rubbed with fat...

The bones of goats are used to reduce the pain.

Bird stomachs are used to quieten the


!na#khawab
A decoction of the stems is drunk to relieve stomach pains.

!ôasái
This is a fungus with light brown spores. These spores are used as a facial powder.

+namin
Only the brown, teardrop-shaped seeds of 2-3 mm long, with dark brown hard outer shell were seen. They are definitely produced by a grass. A porridge is prepared from the ground seeds.

+nurusôai
According to the Topnaar, these very small, black seeds of 1 mm in diameter grow on a creeping plant with yellow flowers. A porridge is cooked from the ground seeds. Fat can be extracted from the seeds and added to porridge.

3.4 Non-plant Material Used by the Topnaar

Beer is brewed from honey, collected from wild beehives, mixed with water. This honey beer is drunk to cure malaria. The Topnaar also eat the honey for the same treatment.

The powder obtained by grinding red ochre, called !nauì, is mixed with fat and rubbed on the face as a cosmetic.

Ash from the fire is applied to wounds and burns.

Several animal products are used medicinally. When children have a collapsed chest, incisions can be made in the chest or back. Roasted and ground kudu skin is set in these incisions. At the same time they drink a decoction of kudu skin and wear a piece of kudu skin around their neck or chest.

When someone has a cold, a goat can be killed and skinned. The stomach content of the goat, or ostrich dung is rubbed on the still warm skin and the person is wrapped in this skin. This will cause sweating. After removing the skin, the body is rubbed with fat.

The bones of goats are roasted and ground. This powder is applied on burns to reduce the pain.

Bird stomachs are dried and ground. A decoction of this powder is given to children to quieten them when they are scared.
Dung is also used in several ways. A decoction of goat dung is drunk as a measles remedy. At the same time the body is washed with this decoction. Fresh chicken dung is rubbed on wounds and burns.

Roasted ostrich dung is sniffed to stop nosebleeds. Ostrich dung and eggshells are roasted and ground. A decoction of this powder is given to children to cure coughs and colds. Their bodies can also be rubbed with this powder.

4. Conclusio

The information study, far exceeds the one made in the beginning (DENTLINGER, 1977) of the village Soutrivier. The plant utilization of 17 plants used in the present study, include valuable but scientific name clicks was not stated. Which plants were used.

In the present study 46 of these are used of 20 plants between different ways in the majority of the plants. As is the case with many people of the Topnaars, the changing environment may collect the Topnaars future a lot of the plants.

The Topnaars’ knowledge be considered to cool analogous ecological
4. Conclusion

The information collected on plants used by the Topnaar people during this study, far exceeds the information collected in previous surveys with the Topnaar (Dentlinger, 1977 and Du Pisani, 1983). Dentlinger limited her survey to the village Soutrivier and concentrated it mainly on the Inara. Du Pisani studied the plant utilization in Namaland (the territory of all Nama tribes). He lists only 17 plants used in the Kuiseb area in his article. Some anthropological studies made in the beginning of this century (Carstens et al., 1987 and Schultze, 1987), include valuable information on plant uses by the Topnaar in the past, but scientific names are mostly lacking. Also the written representation of Nama clicks was not standardized in that time, resulting in sometimes confusing or even incomprehensible plant names. At this point in time it is very difficult to know for sure which plants were exactly meant.

In the present study 81 plants were found to be used by the Topnaar people. 46 of these are used in the Kuiseb area and 55 in Sesfontein. There is an overlap of 20 plants between both areas. These plants, however, are sometimes used in different ways in the two areas. An extra 20 plants could not be identified. The majority of the plants are perennial and thus available most of the year.

As is the case with all traditional wisdom, a great part of the once broad plant knowledge of the Topnaar has already been lost over time, due to contacts with western civilization. Changes in plant use can be expected anyway because of the changing environment and living conditions. The present project has tried to collect the Topnaars' present plant knowledge. We fear, however, that in the near future a lot of the present knowledge might be lost.

The Topnaars' plant knowledge has not only local importance, but can also be considered to contain valuable information for other communities living in an analogous ecological context.
5. Literature


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Wie is die Nama? Bylae oor Namas. Bylae tot die Suidwester, August, 1, 1986.

6. Annexes

1. Inleiding

Die doel van hierdie onderwerp is om die Topnaar mensen, en meer spesifiek die Topnaar 'n kennis en begrip te verhad van hul kulturele en historiese erfgoed, raas en religie. Dit is oor die Topnaar gelede en vertaal in die Afrikaans taal.

Die Topnaar is een van die oudste nedersettings in die Wes-Kaap en was van baie historiese belang. Hulle het in die vroeë 19de eeu in die gebied van die Kuiseb River naby Walvis Bay gestig en het daar selfs vandag nog gelede.

Die Topnaar is 'n belangrike beperking van die Kus afrikaners, en hulle lewe was gesig aan 'n kulturele en historiese erfgoed. Hulle het 'n unieke kultuur en tradisies gehad wat van baie belang is vir die kenning van hul ligging in die geskiedenis van die Kaap terwyl hulle ook 'n belangrike rol gespeel het in die ontwikkeling van die land se ekonomie.

Die kuiseb-rivier, die vloei van sy water, ontstaan die geoogiese omstandighede wat die namib geval en die nuwe en eeuwige plant samevoorsaak. Met die Kulubalawadi, die kus Joan, die Die Kuiseb rivier is die 'n belangrike onderwerp.
6. Annexes

Translation in Afrikaans

1. Inleiding

Die doel van hierdie etnobotaniese opname is die inventarisering van alle plantes wat deur die Topnaar mense gebruik is vir alle doeleindes: voedsel, drank, medisynie, speserye, fermentasie, koagulasie, higiëne, skoonheidsmiddels, voer, brandhout, houthout, gereed-skap, meublement, kombuisbenodigdighede, vesels, tanine (boisum), kleursel, gif, narkotika, kuns, godsdien en andere.

Die Topnaar behoort tot die Khoi Khoi (Hottentot) ras. In Namibë, is die Nama en Oorlams oorlystelsel van die Khoi-Khoi. Die Nama bestaan uit 9 stamme. Twee van hierdie stamme is (1) die Topnaar van die Kuiseb vallei, genaamd Anzin (mense van bo) of inaranin (mens die lewe van die inara), en (2) die Topnaar van Sesfontein, genaamd: !Gamen ("dom mense", praat 'n onverstaanbare dialek). Die moedertaal van die Topnaar is Nama, 'n soge-namde klapklank. / , ! en # is die 4 klapklanke die gebruik word, elkeen val saam met 'n definitiewe geluid.

Die Kuiseb rivier is 'n seisoensgebonde rivier die deur die Sentrale Namib woestyn vloei. Dit vorm die grens tussen die noordelike klop woestyn en die suidelike sand woestyn. Die opvanggebied van die Kuiseb rivier lê in die hoëveld plato. Reën wat in die gebied val veroorsaak dat die Kuiseb vloei. Vir die grootste gedeelte van die jaar is die rivierbed droog, maar 'n konstante ondergrondse riviervloei is aanwesig. Die gevolg is 'n lynregte oasis wat eerstens die Namib woestyn verdeel en tweedens die omvang van 'n verskeidenheid van nie-woestynaardige plantes vergroot. Langs die laer Kuiseb rivier woon ongeveer 100 Topnaar, versprei oor 12 nedersettings. Die nedersettings is van oos tot wes: Homib, Ooswater, Natah, Galabeb, Sontrivier, Klipneus, Swartbank, Eduseb, Uurras, /Goatanab. Dawe draus en Arnstraat (die laas-giene vier behoort tot die Walvisbaaigebied, Suid Afrikaanse riemond). Die mense se bestaan is afhanklik van bok boerderye en die insameling van eetbare plantes. Die mees belangrikste voedsel die deur die mense versameld word is die inara, die vrug van Aran-thosicyanos horridus, 'n wilde pampoengewas, eie aan die Namib, die in die dune naby die kus groei. In die verlede was die inara die stapelvoedsel van die Topnaar. Huidiglik vorm dit 'n belangrike onderdeel van hulle dieê.
Sesfontein is vernoem na die aanwezigheid van ses standhoudende fonteine, is 'n 10 km radius oasis omring deur bergte, geleë in die pro-Namib op die pad van Damaraland na Kaokoland. In Sesfontein woon ongeveer 100 Topnaar. Die 1500 ander inwoners van Sesfontein bestaan hoofsaaklik uit Damaras en Hereros. Te danke aan die ses fonteine is landbou moontlik in Sesfontein. Elke manlike inwoner besit 'n gedeelte van die besproeië gebied en die belangrikste gewasse is koring, mielies en tabak. Die versameling van wilde maar eetbare plante asook bok boerdery vorm tot vandag nog 'n belangrike onderdeel van die mense se bestaan.

2. Metodes

Om die nodige informasie oor die gebruik van plantes in die 12 Topnaar nedersettings in te samel was die nedersettings langs die Kuiseb en Sesfontein vir 'n tydperk van 6 maande (Januarie - Junie 1992) besoek waartydens 'n onderhoud met al die Topnaar families gevoer is. Inligting aangaande plantespesies, hulle gebruik, gedeeltes gebruik, voorbereiding en verwerking daarvan was ongesamel. Alle plant name soos deur die Topnaar gebruik was in Nama. Die wetenskaplike name was op verskeie maniere gekollekteer. Alle plant name soos deur die Topnaar gebruik was ook in die inheemse gebruik. Dit is te danke aan die ses fonteine is landbou moontlik in Sesfontein. Elke manlike inwoner besit 'n gedeelte van die besproeië gebied en die belangrikste gewasse is koring, mielies en tabak. Die versameling van wilde maar eetbare plante asook bok boerdery vorm tot vandag nog 'n belangrike onderdeel van die mense se bestaan.

3. Resultate

3.1 Die plante gebruik deur die Topnaar

Die plante soos deur die Topnaar-mense gebruik is, word in alfabetiese volgorde gerangskik. Die Nama naam asook die gewone naam in Engels (E) en/of Afrikaans (A), soos in die literatuur weergegee, is per plant verskaf in die Engelse tekst. Alle plant soos deur die Topnaar gebruik, word verskaf met 'n indikasie van die gebruik in die Kuiseb-area (K) of in Sesfontein (S).

**Acacia albida**

Die peule van die anaboom is die belangrikste voer vir bokke en vee in die laer Kuiseb-rivier gebied. Die blare word ook geëet. Die hout is baie hard en word addisioneel as brandstof ook vir timmerhout (byvoorbeeld die maak van drinkbakke) en meubels aangewend. Die stamme word as pale vir die konstruksie van huise, krale en omheinings gebruik. Die bas word gebruik om dakke en mure mee te bedek. (K).

**Acacia erioloba**

Hierdie boom, tuinplante, veeg in die Kuiseb en Sesfontein vegetasie langs die Kuisebvallei. Dit speel die 'nero' 'n belangrike rol. Hulle verskaf hulle met die nodige water vir die waterbalans van die gebied. Die hout is baie hard en word addisioneel as brandstof ook vir timmerhout (byvoorbeeld die maak van drinkbakke) en meubels aangewend. Die hout is baie hard en word addisioneel as brandstof ook vir timmerhout (byvoorbeeld die maak van drinkbakke) en meubels aangewend. Die bas word gebruik om dakke en mure mee te bedek. (K).

**Acacia tortilis ssp. tortilis**

Hierdie boom, tuinplante, veeg in die Kuiseb en Sesfontein vegetasie langs die Kuisebvallei. Dit speel die 'nero' 'n belangrike rol. Hulle verskaf hulle met die nodige water vir die waterbalans van die gebied. Die hout is baie hard en word addisioneel as brandstof ook vir timmerhout (byvoorbeeld die maak van drinkbakke) en meubels aangewend. Die bas word gebruik om dakke en mure mee te bedek. (K).

**Acanthosicyos hirsuta**

Argeologiese studeer vir die mense, woonplaaslikes, dekkings van inheemsse, ontwikkelings van die oue woestyn-vrou, gevind. Dit is te danke aan die ses fonteine is landbou moontlik in Sesfontein. Elke manlike inwoner besit 'n gedeelte van die besproeië gebied en die belangrikste gewasse is koring, mielies en tabak. Die versameling van wilde maar eetbare plante asook bok boerdery vorm tot vandag nog 'n belangrike onderdeel van die mense se bestaan.

Die plante soos deur die Topnaar gebruik is, word in alfabetiese volgorde gerangskik. Die Nama naam asook die gewone naam in Engels (E) en/of Afrikaans (A), soos in die literatuur weergegee, is per plant verskaf in die Engelse tekst. Alle plant soos deur die Topnaar gebruik, word verskaf met 'n indikasie van die gebruik in die Kuiseb-area (K) of in Sesfontein (S).
Acacia erioloba

Hierdie boom, tesame met die *Acacia albida*, vorm die belangrikste standhoudende vegetasie langs die Kuiseb-rivier. Die hout word as die beste beskikbare brandhout in die gebied beskou. Dit produser die min rook en goeie kwaliteit houtskool. In die verlede het die Topnaar van die laer Kuiseb houtskool van hierdie boom verkoop. Die praktiek word nou deur die Ministerie van Natur-, Omgewingsbewaring en Toerisme verbied. Alhoewel hierdie houtsoort te hard is vir konstruksiedoeleinders, word dit soms vir meubels en omheinings aangewend. Dit is termiet weerstandend. Die peule en blare word deur die vee geëet. In periodes van voedsel skaarste, word die pulp van die peule ook deur die Topnaar self geëet. Die gom, die deur die takke afgegee word, opgelos in kokende water, word gedink om hoes, tuberkulose en verkoues te genees. Die hol word nie (weens 'n lang onderzoek, nie aanwesig

Acacia tortilis ssp. heteracantha

Hierdie boomsoort is vry algemeen in die Sesfontein-vallei. Die Topnaar maal die peule, verwyder die sade, en kook die pulp met melk, bloed of water tot 'n eetbare pap (mielies of koring kan ook bygevoeg word). Die peule word ook deur die bokke geëet. Die horn is eetbaar (S). Die horn, *hairan* in Nama, is eetbaar (S).

Acanthosicyos horridus

Argeologiese studies toon aan dat die *Inara*, sedert die afgelope 8000 jaar, as voedsel vir die mense, woonagtig in die Namib-woestyn, gedien het. *SANDOLOWSKY* (1990) het bedekkings van *Inara* sade van 8000 jaar oud by die Mirabib Bergskuiting, in die sentraal Namib-woestyn, gevind. Die patroon van opbreking van die saad bedekking kom nagenoeg ooreen met die observasie van saad bedekkings van die terreine van huidige Topnaar mense.

In die verlede was die *Inara* die stapel voedsel van die Topnaar wat in die laer Kuiseb-vallei geby het. Hierdie mense word ook *Inaranin* (mense van die *Inara*) genoem. Huddiglik speel die *Inara* 'n belangrike rol in die dieet van die Topnaar.

Die *Inara* bosse groei in die sandduine suid van die Kuiseb-rivier digby die kus. Dit is 'n gebied waar mis, afkomstig van die see (koue Benguele sestroem), 'n belangrike rol speel in die waterbalans van die vegetasie.

Die oessiseen van die *Inara* geskied vanaf November tot Mei. Baie Topnaar families beweeg steeds na die *Inara* velde vir 'n paar maande om te oes. Wanneer die vrugte ryp is, word hulle versamel en in die grond begrawe of in die son vir 'n paar dae geplaas om hulle sodoende sagter te maak.

Vir die tradisionele voorbereiding, word die vrugte afgeskil en vir 'n aantal uren gekook totdat die pitjies van die pulp loskom en die pulp diep oranje en dik word. Die pitjies word
dan van die pup verwyder deur die sop te sir. Die pitjies word in die son gedroog en dan in sakke gestoor. Die pitjies word geëet soos neute of gemal en by geregte gevoeg. ’n Gedeelte van die pitjies word aan Walvisbaai handelaars verkoop. Dit is vir hulle beurt na Kaapstad uitgevoer waar dit sou rou geëet word (genoem botterpitjies) of in die fynbakkery. Die smaak is dieselfde as amandel en die pitjies is hoog voedbaar; dit bevat 57% olie en 31% proteine. Die gekookte pulp word op die sand of op sakke uitgegooi en in die son, vir 'n paar dae, gelaat om te droog. Die gedroogte pulp vorm plat koeke genoem "goakaribeb". Die koeke word gekou of by pap gevoeg. Die voorbereiding asook die uitdroging maak dit vir die Topnaar moontlik om die inara vir maande te stoor en dit gedurende 'n volle jaar te eet.

Die olie van die pulp deur in die sand te vryf, word rou of geroosterd geëet. Die inara is nie net 'n belangrike voedselplant nie. 'n Afkooksel van die wortels word as 'n lewenselixer bestempel en word gebruik om verskeie interne siektes soos veneriese siekte, maagpyne, mislikheid, nierprobleme, slagaarverharding en borspyne te genees. Vir die behandeling van hierdie siektes word 'n afkooksel van die pulp geëet. Sommige mense vermeld dat dit alle siektes, in een dag, kan genees. Die gebreekte wortel, gemeng met vet, word op wonde gesmeer om sodoende genesing te versnel.

Olie van die pulp word gebruik as 'n vel bevogtiger om die vel teen sonbrand te beskerm. Vir die behandeling word die pulp deur in die sand te vryf, word rou of geroosterd geëet. Olie van die pulp word gebruik om die vel teen sonbrand te beskerm. Dit kan as 'n lewenselixer gebruik word om verskeie interne siektes soos veneriese siekte, maagpyne, mislikheid, nierprobleme, slagaarverharding en borspyne te genees. Die gekookte pulp word op die sand of op sakke uitgegooi en in die son, vir 'n paar dae, gelaat om te droog. Die gedroogte pulp vorm plat koeke genoem "goakaribeb". Die koeke word gekou of by pap gevoeg. Die voorbereiding asook die uitdroging maak dit vir die Topnaar moontlik om die inara vir maande te stoor en dit gedurende 'n volle jaar te eet.

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Aloe asperifolia

'n Afkooksel van blare word gedrink vir die behandeling van slagaarverharding, nierprobleme, asma, epilepsie en verkoues. Die afkooksel word ook deur mense en vee gedrink om de afvoer van die nageboorte moontlik te maak. Verder word die afkooksel aan donkies gegee wanneer hulle giftige plante gevreet het. Die blare word gekou of 'n afkooksel word gedrink om mag- en borspyne te verlig. 'n Blaar word in die drinkwater van hoenders geplaas of 'n afkooksel word gedrink om maag- en borspyne te verlig. 'n Blaar word in die drinkwater van hoenders geplaas of 'n afkooksel word gedrink om maag- en borspyne te verlig.

Aloe dichotoma

'n Afkooksel van die wortel word gedrink vir die behandeling van tuberkulose. (S).

Aloe hereroensis

'n Afkooksel van die spore word gebruik om die proses te versnel. Dit kan met vet of 'nara-olie beskerm ook die vel teen sonbrand te beskerm.

Amaranthus dinteri

Die blare en stengels word gedrinking van hulle teen gemake en dié venen en bokke word aan donkies gegee. (K).

Antiphiona fragrans

'n Afkooksel van die vynngemaakt blare word gebruik om verskeie interne siektes soos veneriese siekte, maagpyne, mislikheid, nierprobleme, slagaarverharding en borspyne te genees. Vir die behandeling word die wortels ook gekoll. Sommige mense vermeld dat dit alle siektes, in een dag, kan genees.

Arthraerua leubnitzii

Die afkooksel van blare word gedrink vir die behandeling van slagaarverharding, nicrproblerne, asma, epilepsie en verkoues. Die afkooksel word ook deur mense en vee gedrink om die afvloeing van die nageboorte moontlik te maak. Verder word die afkooksel aan donkies gegee wanneer hulle giftige plante gevreet het. Die blare word gekou of 'n afkooksel word gedrink om maag- en borspyne te verlig. 'n Blaar word in die drinkwater van hoenders geplaas of 'n afkooksel word gedrink om maag- en borspyne te verlig. 'n Blaar word in die drinkwater van hoenders geplaas of 'n afkooksel word gedrink om maag- en borspyne te verlig.

Blumea decurrens

'in Afkooksel van die vrugte word gekoll. Die vrugte word, ekstraksie word ook gedrink om die afvloeing van die nageboorte moontlik te maak. Verder word die afkooksel aan donkies gegee wanneer hulle giftige plante gevreet het. Die blare word gekou of 'n afkooksel word gedrink om maag- en borspyne te verlig. 'n Blaar word in die drinkwater van hoenders geplaas of 'n afkooksel word gedrink om maag- en borspyne te verlig.

Berchemia discolor

Die blare word gekou of 'n afkooksel word gedrink om maag- en borspyne te verlig. 'n Blaar word in die drinkwater van hoenders geplaas of 'n afkooksel word gedrink om maag- en borspyne te verlig.
in die son vir 'n paar dae of gemaal en by geregte ars verkoop war dit dan op oem botterpitjies) of in die hoog voedbaar: dit bevat d of op sakke uitgegooi en p vorm plat koekje genoem stiging asook die uitdroging er en dit gedurende 'n volle 
edrukgoudingasook die II 

Aloe hereroensis

'n Afkooksel van die blare word gedrink vir die behandeling van bors- en hartpyne. Dieselfde afkooksel word aan honde gegee vir die behandeling teen hondsdoelheid (S).

Amaranthus dinteri ssp. dinteri

Die blare en stingels word gekook en geëet as groente. Dit word met uie en vet voorberei. (S).

Antiphiona fragrans

'n Afkooksel van die hele plant word gedrink om borspyne te verlig. Die gedroogte en fyngegemaakte blare word as liggaamspeier gebruik. (S).

Arthraerua leubnitziae

Die afkooksel van die wortels word gedrink om bewerasie te verlig. (K).

Aspilia eenii

Die wortels word in melk geplaas om dit te verstief en om die smaak te verbeter (joghurt). (K).

Battarea sp.

Die spore word op brandwonde gesmeer om pyn te verminder en die gesondmakingsproses te versnel. Dit word ook op ruwe gedeeltes van die liggaam gesmeer. Spore (gemeng met vet of /nara-olie of rooiklip, genaamd /nau) word as 'n skoonheidsmiddel gebruik. Dit beskerm ook die vel teen sonbrand en uitdroging. (K).

Berchemia discolor

Die vrugte word vars of gedroog geëet. Dit kan ook in melk gekook en geëet word. (S).

Blumea decurrens

'n Afkooksel van die blare of die wortels word gedrink om maagpyne te verlig. Die ekstraksie word ook gebruik om die liggaam te was; dit verhoed aknee. Die blare word in die skoene geplaas om seer voete te verlig. In die verlede is takke gebruik vir die konstruksie van hutte en word vandag nog gebruik as dakbedekking (dit maak die dak ondeurdringbaar).
**Boscia albitrunca**

Die afkooksel van die blare word in die oor gedrup om oorpyn te verlig. (K) Bessies, met die saad verwyder, en deurweek met water en daarna vermeng verskaf 'n vars, drinkbare sap. (S).

**Boscia foetida ssp. foetida**

Die afkooksel van die blare en takkies word in die oor gedrup om oorpyn en oë om oogpn te verlig. (K) Dieselfde afkooksel word deur die Topnaar in Sesfontein gedrink om verkoues te geneses en maagpyne te verlig.

**Brownanthus kuntzii**

'n Afkooksel van die hele plant word by kokende water gevoeg. Die pasient sit in die stoom om van verkoues, koors en griep te genes. Inaseming van die stoom, verkry deur die hele plant te kook, forseer vorming en verlig sodoende naaardheid. Die afkooksel van die stingels kan gedrink word om maagpyne te verlig, om harlywheid op te los en ellis tu verskaf. Dieselfde afkooksel word aan diere gegee wanneer hulle pens opgeblaas is of wanneer hulle deur die lintwurms vervuil is. (K).

**Caesalpinia rubra**

Die gedroog en gemaalde blare word as parfuum in Sesfontein gebruik.

**Capparis hereroensis**

Die Topnaar van die laer Kuiseb-rivier het die vrugte rou. Baie van die bosse het weens die droogte verdwyn. (K).

**Cataphractes alexandri**

'n Afkooksel van die bas van die takke en wortels word gedrink of die bas word gekok om verkoues te genes. (S).

**Citrullus ecirrhosus**

Die sade word gerooster en geëet. Die pulp is oneetbaar (K).

**Coccinia sp.**

Die bolle word gerooster en geëet (S).

**Commiphora giess**

Die lootjies word geweek en bad vereenlik om verkoues te genees. (K).

**Commiphora krae**

Die varse vrugte en kortkapsule word van diere gegee. (S).

**Cordia gharaf**

Die vars vrugte en kortkapsule word van die Topnaar van die laer Kuiseb-rivier geëet. (K).

**Cullen obtusifolia**

Die blare of die vrugte word gedink en deurweek met water. Ekstrakse van dié plant word gedink om ekstra vitae en nageboorte pyne te verlig.

**Curroria decidua**

Die stamme van die plant word gedink en deurweek om verkoues te verlig. (K).

**Cyperus marginat**

Die stamme van die plant word gedink en deurweek om verkoues te verlig. (K).

Coelophospernum (K)

Alle gedeeltes van hierdie plant word gebruik onder ander oor asook brandhout genees. (K).

**Combretum imber**

'n Afkooksel van die plant word gedrink om verkoues te genees. (K).

**Combretum krae**

Die varse vrugte en kortkapsule word van die Topnaar van die laer Kuiseb-rivier geëet. (K).

**Cordia gharaf**

Die vars vrugte en kortkapsule word van die Topnaar van die laer Kuiseb-rivier geëet. (K).

**Cullen obtusifolia**

Die blare en kortkapsule word gedink en deurweek om verkoues te genees. (K).

**Cyperus marginat**

Die stamme van die plant word gedink en deurweek om verkoues te verlig. (K).
Ie verlig. (K). Bessies, met verskaf 'n vars, drinkbare

Irup om oorpyn en oë om in Sesfontein gedrink om

`n Afkookskel van die blare word gedrink om maagpyne en verkoues te verlig. Die laaste deure word met die ekstrak gewas. In die gevallen van hoofpyne/aantoon, word die hoof/oë met die ekstrak van blare gewas waarne die gekookte blare op die hoof/oë geplaas word. Die lootjies word gekok om die tand te skoon. Die gedroogde blare, die suiker en gom bevat van afskeldings van 'n parasietagtige bladlus, die op die blare voorkom, word geeët.

**Colophospermum mopane**

Alle gedeeltes van die boom word wydverspreid in Sesfontein gebruik. Die hout word onder andere vir houtsnijwerk, vir die konstruksie van huise, kraf, omheinings, skure, asook brandhout gebruik. 'n Afkookskel van die blare word gedrink om maagpyne en verkoues te verlig. Vir laaste deure word met die liggaam ook met die ekstrak gewas. In die gevallen van hoofpyne/aantoon, word die hoof/oë met die ekstrak van blare gewas waarne die gekookte blare op die hoof/oë geplaas word. Die lootjies word gekok om die tand te skoon. Die gedroogde blare, die suiker en gom bevat van afskeldings van 'n parasietagtige bladlus, die op die blare voorkom, word geeët.

**Combretum imberbe**

`n Afkookskel van die blare word gedrink om borspyne te verlig (S).

**Commiphora giessii**

Die lootjies word as vuurhout gebruik. (S).

**Commiphora kraeuseliana**

`n Afkookskel van die bas of takke word gedrink om hartprobleme, trillings, borspyne, hoesbueie en verkoues te genees. Om `n mens in water, waarin lootjies van hierdie struik geweek is, te bad bring geluk. (S).

**Cordia gharaf**

Die vars vrugte word geëet. (S).

**Cullen obtusifolia**

Die blare of die volle plant kan by tee gevoeg word as geursel. Die tee verskaf aptyt. Die toevoeging van die wortel by melk gee die melk `n goeie smaak en stol dit (joghurt) (K). 'n Ekstrakse van die plant in water, melk of tee gemaak, daarvan word gedrink om maagpyne en nageboorte pyne te verlig. Dit word ook aan bokke, na bevalling, geeët. (K).

**Curroria decidua**

`n Afkookskel van die wortels word aan mal honde gegee (S).

**Cyperus marginatus**

Die stamme word op dakkie geplaas vir bedekking. (K.S).
**Cyperus rotundus**

Die gedroog en gemaalde bolle word as parfum gebruik. (S).

**Cyperus sp.**

Die blombolle word rou of gekook geëet (S).

**Cyphostemma sp.**

Die vrugte word rou geëet. Die sap kan uit die vrugte gedruk en gedrink word. (S).

**Datura innoxia**

’n Warm blaar word op wonde, in die armholte geplaas, om die etter uit te trek. (S).

**Ecklonia maxima**

Die stam van die seeplant word gerooster en gemaal. Die poeier die dan verkry word (gemeng met vaseline) word op wonde en brandwonde gesmeer. Die behandeling verhoed infeksie en versnel genesing. (K,S).

**Euclea pseudebenus**

Die hout van die boom word as brandstof, vir die konstruksie van huise en krale en in die vervaardiging van gereedskap gebruik (K,S). Die wortels word gekou om tandeskoon te maak. Die blare word deur die vee gevreet en die bessies kan as hoendervee gebruik word (K).

**Ficus sycomorus**

Die wilde yye word vars of gedroog geëet. Om ’n soort konfyt te verkry, word onbevlekte vrugte met suiker in ’n pot geplaas. Die gedroogde en gemaalde vrugte word as ’n plaasvervanger vir koffie gebruik. (K,S). Alle gedeeltes gemaak. Die poeier word gedra weens hulleself te was, gebruik gewas wanneer ’n verkruimeling die sap (of ’n ekeblaarkoop met eunie) een droog is. Die fruit word geëet.

**Fockea angustifolia**

Die bolle word gerooster en geëet. Dit bevat baie water. (S).

**Grewia tenax**

Die vrugte word rou geëet (S). Die hout word as brandstof gebruik (K).

**Harpagophytum prol**

’n Afkoekselsel van die pyne te verlig. Voor die ontwikkeling van diëet om “die bolle van die aarde” te vind.

**Helichrysum tomentosum**

Die gedroogde en gemaalde bolle word parfum gebruik. (S).

**Hoodia currori**

Die stam en skrale van die boom word gebruik, hoë bloeddruk verlaag. Die oë geëet om oog te oor sy bedrievigheid. (K,S).

**Hyphaene petersiana**

Die soete, veselagtige vrugtes word geëet. (K).

**Kleinia longiflora**

’n Afkoekselsel van die boom. Die vrugte word geteel en as hondervee gebruik. (K).

**Lycium cinereum**

Alle gedeeltes van die boom word gebruik. Die poeier word gedra weens hulleself te was, gebruik gewas wanneer ’n verkruimeling die sap (of ’n ekeblaarkoop) een droog is. Die fruit word geëet.

**Maerua schinzii**

Die liggaam kan word behandel asook in gevleespynse, gebruik gewas wanneer ’n verkruimeling die sap (of ’n ekeblaarkoop) een droog is. Die vrugte word geëet.
**Harpagophytum procumbens**

'n Afkooksel van die bolle word gedrink of die bolle word gekou om maag- en nageboorte pyne te verlig. Voor die bolle versamel word, word 'n naald of knoop in die grond geplaas om "die bolle van die aarde te koop". Daar word geglo dat 'n persoon nie op 'n ander manier hierdie buise sal vind nie. (S).

**Helichrysum tomentosulum ssp. aromaticum**

Die gedroogde en fyngemaakte blomkoppe word as parfuum gebruik. (S).

**Hoodia currori**

Die stingcls word rou geeet nadat die skil en dorings verwyder is. Die stingel word (etet uit te trek. (S). Die stingel word rou geëet nadat die skil en dorings verwyder is. Die stingel, geëet by suikerwater, verskaf 'n vars drankie, (K.S).

**Hyphaene petersiana**

Die scet. veselagtige mesokarp word geëet. Die blare word gebruik om dakkê dek. Die blare, verdeel in dun lae, word gebruik vir die weef van alle soorte mandjies. (S).

**Kleinia longiflora**

'n Afkooksel van die stingels word gedrink om tand- en hoofpyne te verlig. (K).

**Lycium cinereum**

Alle gedeeltes van die struik (blomme, blare, takkies en wortels) word gedroog en fyngemaak. Die poeier word as liggaamspoeier gebruik. Die fyngemaakte takkies word onder die klere gedra weens hulle aangename reuk. (K).

**Maerua schinzii**

Die liggaam kan met 'n afkooksel van blare gewas word om velaandoenings en aknee te behandel asook in gevalle van koors of swakheid. In plaas daarvan om seep te gebruik om hulleself te was, gebruik die Topnaar 'n afkooksel van blare. Die liggaam word ook hiermee gewas wanneer 'n verbetering in ingesteldheid verlang word (K). Die Topnaar van Sesfontein drup die sap (of 'n ekstraksie) van die blare in die ore om oorpyne te verlig. Die drink van 'n blaar afkookse genees 'n hoesbui.
**Monechma sp.**

'n Afkoeksel van die wortels word gedrink om algemene liggaampyn te verlig. (S).

**Monsonia sp.**

Die sade van die plant word deur miere versamel. Die sade word versamel van suike miernestes, gerooster en dan gemaal en by tee gevoeg. Indien bygevoeg verskaf dit koffie ’n beter smaak. Die sade kan ook gekook word as pap of gebak. Die onryp sade kan ook gegaar word en by pap gevoeg word. Dit verskaf die pap ’n vetterige smaak. Blare kan ook gebruik word om die smaak van tee teverbeter. (K,S)

**Myrothamnus flabellifolius**

Blare en stigels van die sogenaamde opstandingsbos word by tee gevoeg. Dit word ook as ’n spesery gebruik. (K, S).

**Nicotiana glauca**

Warme blare word in skoene geplaas in die gevalle van seer en moëe voete; op die keel geplaas om keelpyn of op die hoof om hoofpyn te verlig. 'n Gekookde blaar kan op wonde en puiises geplaas word om die etter uit te haal. Ingevalle waar kinders pampoentjies het, word ’n warme blaar op die geswelde wang geplaas en met ’n drukverband bedek om die swelling te verlaag. Die takke word gebruik vir die konstruksie van huise, krale en omheininge. Dit is sterk konstruksie materiaal. (K).

**Ocimum canum**

Die blare verskaf ’n vars geur aan tee. Die gemaalde wortels word as ’n liggaampspoeier gebruik. (K).

**Orthanthera albida**

Die stigels word gekoou om die tande skoon te maak. Deur ’n afkoeksel van die stigels te drink of die stigels te kou, word maagpyn te verlig. Vir dieselde gevalle kan die wortels ook gebruik word. ’n Afkoeksel van die gemaalde sade word gedrink om nier en rugprobleme te genees. Wortels kan in bier geplaas word om die smaak te verbeter (K). Die vrugte word hoofsaaklik deur kinders geëet. Alle gedeeltes van die jong vrugte word geëet, maar van die ou vrugte word slechts die bruineste gedeelte van die skil geëet (die buitenste gedeelte en die sade word verwys) (K,S).

**Parkinsonia africana**

Die gerooster en sade kan by die koffie gevoeg word om die smaak te verbeter. (K).

**Pehuel-Loeschea le**

Hierdie plant word blare word gedrink vir die behandeling van mast. Die ekstraksie word by die behandeling van mast gebruik. Die ekstraksie warm gebruik om die stoornis te verlig. (K).

**Pergularia daemia**

Rubbermelk gevoeg in bier. ’n Afkoeksel van die vrugte gebruik. (K). In gevalle van seer knieë en borste en

**Phoenix dactylifera**

Die vrugte word gebruik om die smaak te verbeter. (K). In gevalle van genetiese genee. (K). Die vrugte word gebruik om die smaak te verbeter. (K).
Parmelia hottentotta

Die korstmos word as 'n parfuum gebruik (K,S). 'n Afkoeksels van die plant word gedrink as 'n hoesmiddel asook om maag-en borspyne te verlig. (K).

Pechuel-Loeschea leubnitziae

Hierdie plant word op verskillende wyses as medisyne aangewend. 'n Ekstraksie van die blare word gedrink vir die behandeling van gonorrée, koors, verkoue en bors-en maagpyne. Die ekstraksie word verder ook vir die volgende huidsiektes aangewend naamlik vir die behandeling van musels, sere, velaandoenings en vir die disinfeksie van wonde. Verder kan die ekstraksie warm gemaak word om stoom te produseer. Deur 'n persoon se liggaam bloot te stel aan die stoom word velaandoenings behandel en deur die stoom in te asem word verkoue en griep genees. Vars of gedroogte blare word fyngemaal en op wonde geplaas. Warme blare word gebruik vir die verligting van seer en moë voete en word ook op die hoof geplaas vir die behandeling van hoofpyne. 'n Ekstraksie van die wortels word gedrink vir die behandeling van tuberkolose (K).

Pergularia daemia

Rubermelk gevoeg by drinkwater maak dit giftig en kan dus gebruik word om diere te dood. 'n Afkoeksels van die wortels word gedrink om veneriese siekte en aaprobleme te genees. Poëier die verkry word deur die wortel (of blaar) te rooster en te maal. word aan wonde gesmeer (K). In gevalle van rugpyne, word inkerwings in die rug gemaak waarna die gemaalde wortel in die inkerwings geplaas word (S).

Phoenix dactylifera

Die vrugte word vars of gedroog geëet (S,K). 'n Afkoeksels van die wortels word gedrink vir die behandeling van tuberkolose (K). Hierdie bome is in die verlede deur Duitsers geplan te plant, maar het sklerotied wild geword en vermenigvuldig.

Prosopis glandulosa

Die peule word deur beide mense en vee geëet. (K).

Ricinus communis

In gevalle van pruili oftandpyn, word Ricinus sade gemaal en gekook en op die geswelde wang ingevryf (of vet word op die geswelde wang gesmeer). Die hele wang word met 'n blaar bedek en saamgepers. (K,S). Die gerooster en gemaalde sade word op brandwonde en kwetsuur gesmeer. 'n Verwarmsde blaar kan op wonde en vel siektes geplaas word asook op seer knieë en borste en op die keel in die gevalle van keelpyn. (K).
Rogeria longiflora

Die gerooster en fyngemaakte sade, somtyds met vet vermeng, word op wonde gesmeer om bloeding te stop. Dit word ook op brandwonde gesmeer om pyn te verlig. Warme blare word op die tepels geplaas om gebarste tepels te genees. (K).

Ruellia diversifolia

Heuning kan uit die blomme gesuig word. (S).

Salvadora persica

Die vrugte, wat soos bronslaai ruik, is eetbaar maar veroorsaak diarree. In Sesfontein word die vrugte gedroog, weer voegig gemaak en in balle gerol. Dit is 'n baie voedsame knapsak kos. 'n Afkooksel van die wortels word gedrink om verkoues en gries te genees. (S). Die hout word somtyds as brandstof gebruik. Die blare word deur koeie gevreet en die vrugte kan as voer aan hoenders gegee word. (K).

Senecio marlothianus

Die wortel word by 'n huisgebroude bier (gemaak van mielies) gevoeg om dit smaak te gee. Die wortel word in 'n lap gedraai, in die son gesit, fyn gemaal en dan by die bier gevoeg. (K).

Sesbania sphaerosperma

Die gerooster en gemaalde sade kan as 'n plaasvervanger vir koffie gebruik word. (S).

Setaria verticillata

Die sade word fyn gemaal en in water, melk of vet, tot 'n pap, gekook. (S).

Solanum incanum

'n Afkooksel van die wortel word gedrink om veneriese siektes en urineringsprobleme te behandel. (S).

Sterculia africana

'n Afkooksel van die vrugte word gedrink om geboorte- en nageboortepyne te verlig. (S).

Strychnos sp.

Die pulp van die vrugte word rou geëet. Die sade is uitsiges giftig (strigine) (S).

Sutera corymbosa

'n Afkooksel van die fyn gemaakte wortel word gedrink om verkoues en gries te genees. (K).

Tagetes minuta

Die blare word by die drank gebruik om maagpyne te verlig. (K).

Tamarix usneoides

'n Afkooksel van die vrugte word gedrink om maagpyne te verlig. (K).

Tephrosia dregeana

Die Kuiseb Topnaar van Sesfontein word gedroog, weer geolied en in balle gerol. Dit is 'n bate voedsel en fyn gemaal om verkoues te genees. (K).

Setaria verticillata

Die sade word fyn gemaal en in water, melk of vet, tot 'n pap, gekook. (S).

Solanum incanum

'Drink van 'n afkooksel om maagpyne en naarhuis gunstig om buite te gebruik. (K).

Trichocaulon pedicell

Dieselfde gebruik as Walleria nutans.

Walleria nutans

Die bolle word gegrondon en verkrygbaar vir 10 maand (K).

Withania somnifera

Die bessies word as meteens genees. (S).
**Sutera corymbosa**

'n Afkooksel van die wortels word gedrink om liggaamspyne te verlig. Die geroosterde en fyngemaakte wortels word op brandwonde gesmeer. (S).

**Tagetes minuta**

Die blare word by tee gevoeg om dit smaak te gee. Die gedroogte, fyngemaakte blare word ook as parfum gebruik. (K).

**Tamarix usneoides**

'n Afkooksel van die wortels word gedrink om indigestie en diarree te genees asook om maagpyne te verlig. (K).

**Tephrosia dregeana**

Die Kuiseb Topnaar plaas die wortel van die kruid in melk om dit te sial. (S). Die afkooksel genees ook hoesbuie. Blare word in die vuur gewerf om "blydskap voor te bring". (K).

**Trichocaulon pedicellatum**

Dieselfde gebruik as *Hoodia currori*, botter is baie bitter. (K).

**Walleria nutans**

Die bolle word gerooster in warm as en heel of fyngemaal geëet. Dit is voedsaam en verkrygbaar vir 10 maande van die jaar. (S).

**Withania somnifera**

Die bessies word as krale gebruik. Die fyngemaakte wortel word gesnuif om neuskanker te genees. (S).
**Ximenia americana**

Die vrugte word geëet. (S).

**Zanthoxylum ovatifoliolatum**

Vrugte en saad word gedroog en gemaal as liggaamspier/parfum. *n Akooskies van die vrugte word gedrink om keelpyn te verlig. (S).

**Ziziphus mucronata**

Die vrugte word rou of gekook geëet. (S).

### 3.2 Ongeidentificeerde plante

Weens die droogte kan sommige plante (meestal jaarplante) nie in die veld gevind word nie. Slegs die nama naam van hierdie plante asook hulle gebruike is bekend. Die wetenskaplike naam, met die Nama naam as vertrekpunt, kan egter nie in die literatuur opgesoek word nie. Hierdie plante word in alfabetiese volgorde gelys. Die rangskikking van die klapklanke is /., /, /.

**aib**

Die wortel word in melk geplaas om dit sodoende te verstyf en die smaak te verbeter. (K).

**aihaib**

*In Akooskies van die wortel word gedrink vir die behandeling van leverprobleme. (S).*

**anto**

Die hout van hierdie boom word vir houtsnywerk aangewend. (S).

**auab, auib**

*In Akooskies van die fyngemaakte wortel of hout word gedrink vir die verligting van maagpyne (K), en vir die behandeling van hoesbuite, hardprobleme en geen eelhus (S). Die wortel word ook in huisgebronde bier geplaas om die smaak te verbeter (K). Die fyngemaakte wortel word ook as 'n parfum gebruik (K). Die hout word ook vir houtsnywerk asook die maak van krale aangewend (S).*

**kaibais**

Die fyngemaakte bas word as parfum gebruik. (S).

**sapibes**

Die rou vrugte word geëet. (S).

**sāun**

Dit is 'n mengsel van vrugte. Hier kan ook saad gevoed en die meel gebruik word. (S).

**sīrin**

Die gedroog en fyn verviise kan gebruik word. (S).

**sītā**

Die huisse word rou. (S).

**gīrehaib**

Die wortel, gemeng en onder hardlywheid, kan gebruik word om te verlig en onder hardlywheid.

**/hus**

Die hout van hierdie plante van die blare en bas word deur die takke afgeval en dien as parfum. Dit word 'n afkooskies van geengewandsprobleme. *n Nageboorte van die bas. Die dye word vir seuns gebruik.

**/otsamab**

Die fyngemaakte wortel word vir die verligting van maagpyne. Die wortel kan op wondes geplaas om bloed te bind. Die hout maak van die blare van die blare van die hoop. Dit word gebruik om verligging van versteende deel van kas. Die hout word ook gebruik.
arfuurn. ’n Afkoekscl van sapibes

Die rou vrugte word geëet.

säun

Dit is ’n mengsel van gras en ander sade, versamel van mier neste. Pap word hiervan gemaak. Bier kan ook van hierdie sade gebrou word. Warm water en suiker word by die sade gevoed en die mengsel word dan laat gis. (S).

sirin

Die gedroog en fyngemaakte stingels word as ’n parfuurn gebruik. (S).

uiai

Die buise word rou of gekook geëet.

/girehaib

Die wortel, gemeng met tee, word gekook. Die afkoekscl word aan donkies gegee wat ly onder hardlywigheid. Die wortel word ook gekou of die afkoekscl word gedrink om maagpyne te verlig en hardlywigheid op te los. (K).

/hus

Die hout van hierdie boom word gebruik vir houtsnywerk en meubels (K,S). ’n Afkoekscl van die blare en bas word gedrink vir die behandeling van hartprobleme. Die gom (haiman), die deur die takke afgegee word, gemeng met olie of vet word aan die liggaaam gesmeer en dien as parfuurn. Die poeierige mieliehout (/ora/) word as ’n liggaaamspecie gebruik en ’n afkoekscl word gedrink vir die verligting van nageboorte pyne en behandeling van ingewandsprobleme. ’n Afkoekscl van die wortel word ook gedrink vir die verligting van nageboorte pyne. Die dooie, verrotte hout (/gabe/) word as ’n liggaaamspecie en babapoecie vir seuns gebruik.

/otsamab

Die fyngemaakte wortel word in water of melk gekook. Die afkoekscl word gedrink vir die verligting van maagpyne, ingewandspyne, menstruasiepyne en nageboorte pyne. Vir die verligting van die pyne kan die wortel ook gekou word. ’n Gekookte en gedroogde blaar word op wonde geplaas om bloeding te stop en om genesing te versnel. Die gerooster en fyngemaakte wortel of die hele plant (gemeng met vet of vaseline) word aan wonde en brandwonde gesmeer. Die gerooster en fyngemaakte blare word ook aan die vel gesmeer vir die behandeling van velaandoenings. Om wilde diere weg te hou, word blare in die vuur gewerf. Die optrede word ook gebruik om verlore bokke terug te vind.


110 Annexes

Igariaāi

Die fyngemaakte sade word gekook en geeet as 'n pap. (S).

ikhawib

Die hele plant word gerooster en fyngemaak. Die poeier word aan wonde gesmeer en versnel sodoende die genesingsproses. Dieselde poeier word as 'n parfuum gebruik. (K).

lna=khawab

'n Alkooksel van die stigings word gedrink vir die verligting van maagpyne. (S).

lopsāi

Die spore van die swam, wat in Sesfontein groei, word gebruik as gesigspoeier.

lub

Die poeier word aangetref tussen die stam en die bas en word gemeng met vet en is in die verlede as kosmetika gebruik. (K).

#namin

Pap word van die fyngemaakte sade gekook.

#nurusōai

Pap word van die fyngemaakte sade gekook. Vet word van die sade verkry en dit word by die pap gevoeg.

#uhaib

'n Alkooksel van die wortels van hierdie rankplant word gedrink of die wortels word gekou vir die verligting van maagpyne en die behandeling van ingewandsprobleme. Die plant word ook as 'n parfuum gebruik. (K).

3.3 Nie-plantaardige materiaal deur die Topnaar gebruik

Heuning word van wilde bynest versamel en met water gemeng. Bier word dan van hierdie mengsel gebrou. Die heuningbier word gedrink of die heuning word geeet om malaria te genees.

Poeier die verkry word deur 'n rooi klip, genoem lnau, te maal word met vet gemeng en op die gesig gesmeer as 'n skoonheidsmiddel.

As van die vuur word op wonde en brandwonde gesmeer.

4. Konklusie

Die inforrnasie die naarmense gebruik woor ondersoekte met die Topnaar gebruik. (K).

Dentinger het haa lijk op die inara gekonsent van alle Namastamme be is deur hom gelys. Somm waardevolle inligting oor 'n Groot gedeelte van die Topnaar het met verloop Die huidige projek het p dokumenter. Ons vrees gaan.
Verskeie dele van diere word as medisyne gebruik. Wanneer kinders 'n ineengevoude bors het, word 'n inkerwing in die bors of rug gemaak. Geroosterde en gemalde koedoe vel word in die inkerwings geplaas. Dieselfde tyd drink hulle 'n afkooksel van koedoe vel en dra 'n stuk van koedoe vel rond hul nek of bors.

Wanneer iemand verkoue is, kan dit gebeur dat 'n bok gedood en afgeslag word. Die inhoud van die bok se maag of volstruismis word gesmeer op die alreeds warme vel en die persoon word in die vel toegedraai. Dit veroorsaak transpirasie. Nadat die vel van die persoon verwyder is, word die liggaam met vet ingevryf. Die bene van bokke word gerooster en fyngemaak. Die poeier word op brandwonde gesmeer om die pyn te verlig.

Die pense van voëls word gedroog en fyngemaak. 'n Afkooksel van die poeier word aan kinders gegee om hulle te kalmeer wanneer hulle bang is.

Mis word ook op verskeie maniere gebruik. 'n Afkooksel van bok mis word gedrink vir die behandeling van maasels. Op dieselfde tydstip word die liggaam met die afkooksel gewas. Vars hoendermis word op wonde en brandwonde gesmeer.

Geroosterde volstruismis word gesnuif om neusbloedings te stop. Volstruismis en eierdoppe word gerooster en fyngemaak. 'n Afkooksel van hierdie poeier word aan kinders gegee om verkoues en griep te genees. Hulle liggame kan ook met die poeier gesmeer word.

4. Konklusie

Die informasie die versamel is gedurende hierdie studie oor die plante die deur die Topnaarnense gebruik word, is baie meer breedvoerig dan die resultate van vorige soortgelike ondersoeke met die Topnaar (Dentlinger, 1977 en Du Pisani, 1983).

Dentlinger het haar studie tot die nedersetting van Soutrivier beperk en het hoofsaaklik op die /nara gekonsentreer. Du Pisani het die plant benutting in Namaland (die gebied van alle Namastamme) bestudeer. Slegs 17 plantsoorte die in die Kuisegebied gebruik was, is deur hom gelys. Sommige vorige artikels (Carstens et al., 1987 en Schultze, 1987) bevat waardevolle inligting oor die plante wat in die verlede gebruik was.

'n Groot gedeelte van oorspronklike plant kennis, alhoewel beperk in omvang, van die Topnaar het met verloop van tyd a.g.v. kontak met die westerse beskawing, verlore gegaan. Die huidige projek het probeer om die inligting oor plant benutting, wat nog bestaan, te dokumenteer. Ons vrees egter dat baie van hierdie kennis in die nabye toekoms verloren sal gaan.

Translation: Patrick Jacobs
Translation in Nama

Plants used by the Kuiseb Topnaar

aib

"Omeb ge daii 'na ra ≠āhe he tsi huni le khaihe ǁ khoab laroma.

anas Acacia albida

Ne hais ge lae khaus tsi om gurus tsi om 'nasi xuna gurus laroma ra sisen uhē. Ne hais 'naas ge 'nasase om gurus laroma ra sisen uhē, tsi 'hara oms laroma. Peulgu tsi ≠aregu ge goman tsi pi rin xa ra ≠ūhe.

aueb

"Omeb gera sai ≠uihe tsi ahe 'atsūn laroma. Ne sai ≠uisa 'lomab ge pi rin tsīna ra asihe ǁ khas ga ǁ o a tama io. 'lomab ge 'lnāi ham hamsens laromas tsīna ra sisen uhe.

aukoreb Aloe aspertfolia

≠aregu gera sai ≠uihe tsi /aob ga soros 'na 'haru tamai ora ahē tsi 'haiti, asmas, /u ǁ ob tsi ǁ khas ga laroma io. Ne ≠aregu ge donkin tsīna ra asi he, lāxa haineur ge ≠y o. ≠Arengu tsīn ge ra ahē tamasga io ahe la tsūn tsi lū tsūn laroma. ≠Arengu ge anin ø ǁ gami 'nas tsīna ra ≠na he, anin ga /ai isi e ǁ au ≠uio tams ga io ≠amina isi e ǁ au o.

autsi/khanneb Pechuel-Loeschea leadenitzae

Ne hais ge /a in laroma hoaraga /a un 'nara sisen uhē tsi la tsūn tsi l u tsūn laroma ra ahē. Ne ≠aregu ti sai ≠uis ge ≠oaxasa /hawin tsi khoe sorosi ǁ on tsi /hawi ≠uru ≠urus laroma ra sisen uhē. Ne ≠aregu ge ra sai ≠uihe tsi 'lores 'na ra ≠a ≠uihe, tsi khoen /hawins tsi na ǁ na ǁ nai b aia uhe ≠nasa ≠aregu ge /hawin tsīna ra ≠uru ≠uru uhe. ≠Omagu ge T-BIS laromas tsīna ra ahē.

dadel Phoenix dactylifera

≠ūti ge /āse tams kaio ≠āsase ra ≠ūhe. 'lomab ge T-BIS laromas tsīna ra ahē.

dai/gubib Pergulara daemia

Dai i ga parden a ǁ gam i 'na dihe on ge pardena ra ǁ o. 'Omagu ge /ais 'na ra amhe tsi n a /ehgo 'na ra tsau tsau he tsi /hawin ai ra tsorohe.

damadawib Aspilia damada

lomab ge dai i 'na /aohe tsi dai i 'na ≠āhe.

dau/anab, ǁ gam/aωit

≠Nasa ikhom ti ge ra khaes laroma dāub /hawi
daweb Tamarix usne

"Omagu ge ra sai ≠uihe parden xas tsīna ra ≠ūhe, uhe.

goradab, goardab Monef-Loeschea leadenitzae

≠Arengu gera sai ≠uihe laroma khoen ge 'nai 'nas

huri ǁ hab, ǁ gam/gūib

Huri ǁ hab ge ra /ai tsiib ge sobosen xui /kha h

khōris Salvadorad pers

≠ārogi gera ≠ūhe, tsi ø

peulboom Parkinsonia

Amsa ikhom ti ge axu

rabab, harapab Mons

Ne hais ti ikhom ge ≠aregu tsi ge tee i 'nara ≠
saris Arthraerua leubn

'Sai ≠uisa 'lomab ge /u
**Annexes**

**damadawib**  Aspilia venit

lomab ge dai i l' nara ṭāhe tsi ra huni khalie  lomab ge l' nanu l' nanuhoe tsi l' naroti l' na ra  /aohoe tsi dai i l' na ṭāhe. Dai i ge /aohoe op ge i khawa /hana l' omaba ra ṭāhe.

**dau/anab, || gam/auwib**  Roperia longiflora

Nasa l' khom ti ge ra tsau tsau he tsi āuro i /ha habahe tsi /ha hawin aira ṭāhe. /aoba || khaes l' aroma dāub /hawin gis tsina ra ṭāhe.

**dauweb**  Tamarix usneoides

l' Omab ge ra sai ṭuahe tsi ahe  || gaorases ga tsa o tsi  || hati /aitsun l' aroma ṭaregu ge parden xas tsina ra ṭāhe. || naugu ge omti tsi l' harati tsina ra guru ūhe tsi /ais tsina ra khau ūhe.

**goradab, goardab**  Maerua schinzii

Aregu gera sai ṭuahe tsi sorosa  || āhe sorosi  || ai  || aiasigu l' aroma tsi soros aira ṭauuixun l' aroma khoen ge l' hai l' nasiba oas l' arasins tsina ra ne ṭaregu /kha ra || asen.

**huri || hab, || gam/guīb**  Ecklonia maxima

Huri || hab ge ra /ais l' naahe, tsi  || na khao l' naub l' nara ṭahā ib l' hai. Tsau tsau he ṭsīb ge sobosen xui /kha habahe tsi /hawin aira ṭāhe.

**khōris**  Salodora persica

Aroti gera ṭūhe. tsi anin tsina ra ṭūma he. Iaigu ge khau es tsīna ra hōhe.

**peulboom**  Parkinsonia africana

Amsa l'khomti ge axu i l' nara ṭāhe.

**rabab, harapab**  Monsonia sp.

Ne hais ti l'khomin ge ṭoworugu xara /hao /haoe. Ne l'khomin ge tee i l' nas tsina ra ṭāhe. ṭaregu tsiin ge tee i l' nara ṭāhe.

**sarīs**  Arthraena leubnitiae

Sai ṭuīsa lomab ge /u || os l' aroma ra ahe.
sirub  Capparis hereroensis

sirub ti oara ũtũ ti sin gera ũuhe.

tabaka somku  Nicottiana glauca

Ne hais ti ũre gera /am /am he tsi il haroti lana ra ẽna he ẽna i na ga tsū o. Tamaskiaon ge domtsūn tsi danatsūn laroma ra sisen uhe. /Goaron ti domtsūn laromas tsina gu ge ne ẽre gera ra sisen uhe /goan domgu ga a xai o. /na /naib ai gu ge ne ẽre gara xaiba ra ẽae lī na. / Aũgu ge omiti tsī lharati tsina ra om uhe. lī in ge /aisa om xuna.

tsabis  Euclea pseudobenus

Ne hais ge /ai khaus laroma ra sisen uhe tsi lharati tsina ra om uhe. lomagu ge lũg̱i tsina ra lānu uhe. lũroti ge anin tsina ra ẽũna he.

tsamab  Citrullus cetrulosus

õṯi ge oarasas tsina ra ũuhe lharati ge /omẖe tsira ǔuhe.

tunub  Blumea decurrens

l′Omagu tsi ẽre gera sainũuhe tsi lna tsugu laroma ra ahe. lī in ge sosos tsina ra ẽā uhe. l′Aregu ge lũroto lna laroma ra ẽũhe ẽna i na ga tsū o. / Aũg̱i ge lũro omo omrote gero om uhe xawe nesí om ẽam i nasi /uṯe ra ti uhe

xaube/hunis  Boscia foetida ssp foetida

Sai ːuisma ẽre gera ẽnae tsūn laroma ra sisen uhe. tsira lhoru ːae uhe.

/arih  Orthuncia albida

Ne ːnaigu ge ra lũg̱i lānu uhe. Ne ːnaigu ge sai ːũuhe tsi lnatsūn laromas tsina ra ahe. lomab tsin ge lnatsūn laroma ra sisen uhe lkiemroti ge sai ːũhe tsi lnatsūn laromas tsina a aẖ ː kha. l′Omagu ge lhan i lnas tsina ra ẽhe il khoab laroma. Peulgu ge /goan xas tsina ra ǔuhe.

/girhaib

l′Omab ge tee i lna ra habahẽ  Sairũuhe toai ga on ge donkina ra asihe. lnas tūnan ga uha ẽ. lomagu ge lnatsūn laroma ra ahe. ẽ in ge /khaise ra ːurugai.

/goab  Trichocaulon pe

l′Omab ge dai i tama noa tsina. ẽ khas ga lī n ra sisen uhe xawe ẽnasase uhe. Amsa. lomab ge /hu lna ra ẽłhe.

/hena/hab  Tephrosia um

l′Omab ge dai i lha ra

/hunib  Boscia albitrun

lī is ge xaube /hunis

/hus

Haigu ge xūna ra gun

/kheras  Ricinus commun

l′khomti ge ra sai ːuil g̱u ge /amsa ẽre gara xote a. /Am /amsa ẽre gera ge /ha parden xas tsina ra ǔuhe x.

/narab  Prosopis glandi

Peulgu ge khoen tsi ːpi

/nomas  Ficus sycomon

l′aro /noman ge l ẽ nat l′kha habahe tsi ẽame ra gu.

/ui ːkhaob  Parmelia ch

Ne ːui l khaob ge ln laromas tsīna ra ahe.
Trichocaulon pedicellatum

Omab ge dai i tamas kaoq gam i !na ra sai=uihe tsi \natsun l'aroma ra ahè. tsi /uisga ||
noas tsvina. || khas ga || noa tama jos tsvina ra ahè. Sai \uis hoaraga hais dis ge \ui /ain l'aroma
ra sisen uhe xawe l'asase l'atsun l'aroma. \aregu ge /hawina \uru \urus l'aromas tsvina ra sisen
uhe. Amsa, omab ge /hawin tsi daw /hawin ai ra sisen uhe. Parden ga ga ogu ge \arega /ais
\na ra \ahe.

Tephrosia dregeana

Omab ge dai i \nara \ahe || khoab \laroma.

Boscia albitrunca

\is ge xaibe /hunis khomi /uiira sisen uhè.

Ricinus communis

\sas \lsine re \tuhe \xawe \nkhomro \ge kaise a \naxa.

Prosopis glandulosa

Peulgu ge \koê\nti \pinyin xa ra \ùhe.

Ficus sucotnon.is

\sul gu ge \noman ge \lnati ga \ùhe seme \ui \ahe \toma i \basas \tsina ra \ùhe. \ui \n ge sai=uihe tsi \railer
\haha tsi jame ra \uuru uhè. \asa \khomti ge \axu \tsina ra \uuru uhè.

Parmelia isotentotta

Ne \ui || khoab ge \nai hamgu \laromara \sisen uhe. Sai \ui=ue tsiib ge \uii tsi \\natsun \laromas \tsina ra ahè.
aris  Lyctium cinereum

Hoaraga hais ge \( \parallel \) nas a khomi ra tsau tsau he tsi \( \perp \)lai hamgu laroma ra tsorosen uhê. Ne hais ge pirin xas tsina ra \( \parallel \)whe.

gammeb, igaubeb, igaubab  Ocimum carum

\( \text{\#Aregu ge} \parallel \) khoaxasibá tee i \( \perp \)lai ra \( \parallel \)whe, lomagu ge lnaise hamhamsens laroma ra sisen uhe.

ganab  Acacia erioloba

\( \parallel \) Anan ge \( \perp \)lai /ai khau u haina. Ne \( \parallel \) nan \( \parallel \) khoib \( \perp \)nats a ho \( \parallel \) khana. \( \perp \)laran \( \parallel \)ge \( \parallel \)guro \( \parallel \) in \( \parallel \)kha \( \parallel \)nú ai xuna gere guru. Ne hais ge kaise a /aisa xuna gurus laroma, xawe lnasase gere sisen uhe. Peulgu ge parden xas tsina ra \( \parallel \)whe. Hairan ne hais din gera sai \( \parallel \)whe, \( \parallel \) in ge \( \parallel \)khais, tsi TBIS tsina a \( \parallel \)whe.

garab  Aloe diehotoma

lomab ge sai \( \parallel \)whe tsi TBIS laroma ra ahe.

gala\( ^{\parallel} \)gaub  Senecio marlothianus

\( \parallel \)Omeb ge \( \parallel \)hari i \( \perp \)lai \( \parallel \)whe \( \parallel \) khoab laroma.

\( \perp \)asab  Battarrea sp.

\( \perp \)honab  Cullen obtusifolia

\( \text{\#Aregu \#tamasa\#gaio hoaraga hais ge teei \( \perp \)lai ra \( \parallel \)ahe \( \parallel \) khoab laroma. lomagu ge daii \( \perp \)lai ra \( \parallel \)ahe daie \( \perp \)lai \( \parallel \) khoaba mas laroma. Ne haib ge sai \( \parallel \)whe tsi \( \parallel \)tsùa lab tsìna /goai ka \( \perp \)naitoa ora tsùgu laroma ra ahe.

\( \perp \)khai/awib  -

Hoaraga haib gera am he tsi tsau tsau he. Tsì \( \parallel \) nas khoa \( \perp \)lai /hawin aira \( \parallel \)tsorohe. Ne haib ge \( \perp \)lai ham hamsens laromara sisen uhe.

\( \perp \)khobab  Hoodia currorl

\( \parallel \)Khobab ge \( \parallel \)khuga \( \parallel \) nahe tsi oarase ra \( \parallel \)whe. \( \parallel \)ib ge /awi /aos laromas tsina ra \( \parallel \)whe tsi \( \parallel \)khais tsi \( \parallel \)natsùb laroma. \( \parallel \)Khobab ge mú tsùn laromas tsìna ra sisen uhê.
Annexes

*Mycorrhizal plants of the separate communities of the eastern region of Madagascar*

**Mycorrhizal plants of the separate communities of the eastern region of Madagascar**

- *Hymenomycetes fimbriolatus*
  - Aregu tsi
  - Augu tsin ge teei
  - Ina ra
  - Hoab
  - Aroma

- *Acanthosicyos horridus*
  - Narab
  - Acetosicyos horridus
  - Naras tsi
  - Hoab
  - Aroma
  - Ina
  - Narade

- *Grewia sp.*
  - Anus
  - Ina ra
  - Hoab
  - Aroma

- *Thamnosma africana*
  - Khanab
  - Thamnosma africana
  - Ina
  - Hoab
  - Aroma

- *Brownanthus kuntzei*
  - Naugub
  - Brownanthus kuntzei
  - Hoab
  - Aroma

- *Tagetes minula*
  - Uhaib
  - Tagetes minula
  - Hoab
  - Aroma

- *Nasa haib ge* larnaham sen uhe.

- *Nasa haib ge* larnaham sen uhe.
Plants used by the Sesfontein Topnaar

aihaib

lomab ge ra säũihe tsi ai || ób larama ahe.

anto

Haiband ge om l'asixuna ra guru uhe.

arihaib  Curvoria decidua

lomab ge sáũihe tsira arina asíhe, ari || ós laroma.

auauri  Caesalpinia rubra

l'aregu ge poeiri ra guru uhe.

aueb, auib  

Haiband ge ra tsautsauhe tsí säũihe tsíra ahe || khais laroma, si 'nàt'sínsí tsi k'aturab laroma.

aukoreb  Aloe hereroensis

l'aregu ge ra säũihe tsí ahe || aotsün laroma, tsi /útsün. Arin tsína Asi ari || ón laroma.

autsilhannahib  Pechuel-Loeschea leubinitzitae

l'arega säũihe tsíra ahe nsoros ga tsúo ne haigu ge || huwis tsína ra hihe /oëntsîgu laroma.

blomhain  Suteria corymbosa

lomab ge hoaraga tsün laroma ra ahe. lomab ge dau/hawin ais tsína ra tsorohe.

bosui  Monsonia sp.

l'khomrodi ge || howorugu xara /hao/haohe tsí khoen xa uhe tsíra l'anu/anuhe tsi tsautsauhe tsíra saihe.

doeba/oahhe  Antiphiiona fragrans

Hoaraga hais gera saihe tsi /útsün laroma ra ahe.
goradab, goardab  Maerua schinzii

Sapi gera %arega xu /atuihe tsì%aedì lnara 'khoroè%ae tsùn laronam %aregu ge saïtuihe tsì || khais laronam ra ahe.

huîna  Sterculia africana

+urodi gera saHüihe, tsì tarehokendi xara ahe lomdi gao, tsì /goana ti ga hotoao.

huri || háb  Ecklonia maxima

|| ib ge /ais lnara amhe tsì tsautsauhe tsì /hawin tsì dâu /hawin ai ra tsorohe.

kaihais

Ne hais ti || ŭgu gera tsautsauhe tsì lnai hamgu laronam ra sobosen uhé

khöris  Salvadora persica

+lomab ge sai +ûihe tsì ra ahe || khais laronam || in ge /nuriha || aeb ai +ûs laronas tsína ra sâuhe, +ûrode.

kowas  Cyphosiemma sp.

+urodi ge || nati ra +ûhé || ili ge súi lòa tsautsauhe. tsì+narade u+ûihe tsì sarera ahe

peperhais  Zanthoxyllum ovatifoliatum

/khomdi tsì+urodi gera tsautsauhe tsì 'naihe ra ham xùra ra guru uhé

sapibes

+urodi ge || nati ra +ûhe

sâun

/kharagagu ham /khomin, +oborugu xara /hao /haohen ge ra länûhe tsína saihe Ne /khomin ge /kharii tsína ra ëa uîhe

sirin

Haigu ge +nâ+nahe tsì lnai ham xùna ra guru uhé
soropees  Solarium incanum

Ne hais ge /kham || oahé ga o sai×nuie tsí ra ahé

surube  Monsonia sp. (unripe seeds)

/khomti ge ra tsautsau hé. tsí sai×nuisa ×aren /kha ra habahe.

tsabis  Euclea pseudobenus

|| in ge omte ra om uhe

tsaurahais  Colophospermum mopane


uiai

×urodi ge !huba xura ütúihe tsí×uie.

xaube/hunis  Boscia foetida

•aregu tsí haigu tsín ge sa₃tuie tsíra ahe || khais tsí latsín laroma. Sai×uisa ×aregu ge ×aetsūn laromas tsína /nai

/ae, || khōs  Cordia gharaif

×urodi gera ×uie.

/ana  Commiphora krausseltiana

Haigu gera sa₃tuie tsí ahe ×aetsún laroma. tsí /útsún. Tsú lnots ga os tsínas ge ne haigu /kha ra || nasen.

/aoab  Commiphora glessii

Haigu ge /aisa ra khauhe.

/gom/gommehaib  Ruellia diversifolia

×heni ge blomrode xu ra /om ×uie.

/hāb  Coccinia sp.

!omab ge ámhe tsí

/harub  Cyperus mar

aiugu ge oms×am·nu

/hunib  -

ki ×urodi ge ra || gar laroma.

/hus  -

Ne haina xún ge || laroma. Hairan ge /nai l

/khēras  Ricinus com

|| is ge /gōaro || on || uhe. || in ge pirikhon

/narab  Acacia tortil

/naragu gera tsauts tsí /khoron tsína /arohe

/nomas  Ficus sycom

|| ansa /oman îa hz

/ōhais  Datura innox

/hawin ga gam'îna ||

/orai  -

/goaron ga lnaītoa || laroma ra sisen uhe.

/ul || khao  Parmelia

/uide ai ra ×oaxa.
/hāb  Coccinia sp.

lomab ge āmhe tsirā #uhe.

/.harub  Cyperus marginatus

aigu ge oms #amlnasa ra guru uhe

/hunib

ki urodi ge ra / gami ina #uhe tsī hai b /kha ra ltow ahe tsī #arade u#uihe tsirā ahe / khoab /aroma.

/hus

Ne haina xin ge / oon tsī sun tsīna ra guru uhe. #aregu ge sa#uihe tsirā ahe #naotsün /aroma. Hairan ge #nai hamgu /aroma ra sīsen uhe

/khēras  Ricinus communis

#is ge /gòaro , on /aromara sīsen uhe. Xuhe #auhe tsīi ge #arega / am /amhe tsī xaib aira / uhe. / in ge pinkhon tsīna ra tsautsau uhe.

/narab  Aruncus tortilis ssp. heteracantha

/naragu gera tsautsauhe tsī #arade axuhe tsī daii /kha saihe tsī #uhe. / nawan ge mielen tsī /khoron tsīna /arohe / kha. / narau ge /ais tsīna ra khaasu uhe. xawe kaise ra an

/nomas  Picus scilomorus

/ansa /oman ia haide xura / ina. tamaskai #nāsa /oman ge ra #uhe.

/ohais  Datura tinctoria

/hawin ga gam'na uhai ogu ge #arega ra /am /amhe tsī #uhe. tsī /nuribar #aetiui.

/orai

/goaron ga lnaitoa ra ha tsūn /aromas ge ne haisa sa#uihe tsirā ahe. Poeieri ge lnai hamgu /aroma ra sīsen uhe

/lu  khaob  Parmelia hottentotta

/uide ai ra noaxa. / in ge lnaiham xīna ra guru uhe.
|| auema || Withania somnifera
| ürodi ge garaga ra guru uhe. | omab ge tsautsauhe tsîra suni e=nu || on l'aroma |

|| khuripe || khams || Harpagophyllum procumbens
| omagu gera sahühe tamaskao=ühe l'atsün l'aroma. | omagu ga ra uhe || naeb aii gera || gamahe thüb ai naldi tsi konobes tsîn /kha. |

|| nüs || Walleria nutans
| ürodi ge ais ai amhe tsîra=ühe. |

|garíaaâï |
| khomti gera tsautsauê tsî sâîhe tsî=ühe. |

|gawas || Cataphractus alexandri |
| Haigu tsî | omab tsîn ge || khaïs laroma sai=nuie tsî ra ahe. |

|hanîni || Cyperus sp. |
| ürodi ge | huba xura uhühe tsi=ühe. tsî saihe tsîna ra hiîhe. |

|harena || Cyperus rotundus |
| omab ge tsautsauhe tsî | laï hamu xuna ra guru uhe. |

|has || Combretum imberbe |
| aregu gera saî=nuie tsî ahe /ú tsûn laroma. |

|honna || Cullen obtusifolius |
| omab ge lânas l'âra=âhe || khoab laroma. |

|kahoba || Hoxiita currori |
| hûgu gera ti || nahe tsîra ra || khaïs laroma ra=ühe. || khoab laromas tsîna. |

|khôtorotororosen, ta |
| aregu gera teëi |

|nà- khawab |
| Haigu gera tsaut |

|narab || Acanthosoriculphasale |
| omab ge sai=üil |

|ôasäi |
| Poeieri ge ais ai |

|unib || Hyphaene pu |
| aregu ge om âa |

|urihaïi |
| || nûb ta lânahe |

|uruëb || Helichrysum |
| nasahain ha 'nìu |

|areb || Setaria vert |
| khomti ge tsaut |

|àros || Ziziphus mu |
| aregu ge || nati |

|aus || Grewia tena |
| aregu ge || nati |

|êros || Ximenia am |
| aregu gera=ühe |
!khotorotorosen, totoson, !khotororsen, 'khọgọ'gosen  Myrothamnus flabeliifolius

=aregu gera teei lnà=ahe || khoab laroma.

!na=khawab

Haigu gera tsautsauhe tsì sā=uihe tsì ahe lnatsùn laroma.

!narab  Acanthosicyos horridus

!omab ge saĩ=uihe tsùra ahe /kham || oahe gao. 'khomti ge tsautsauhe tsì beree ra ū uhe

!ōsāi

Poeiri ge ais ai ra ūhauhe.

!unib  Hyphawne petersiana

=aregu ge om am!nade ra om uhe. Tsì /kharude ra guru uhe.

!urihaii

|| nãb ta lnaohci on ge ne haina lnao daogu !nara=ahce.

!urueb  Helichrysum tomentosulum ssp. aromaticum

=nasahain hìa lnaiham xùna ra guru uhen.

!areb  Setaria verticillata

'khomti ge tsautsauhe tsì mai khomi ra saihe dái /kha.

!aros  Ziziphus mucronata

=úrodi ge || nati ra ū uhe tamaskairo ra sai=ûihe.

!ãus  Grewia tenax

=úrodi ge || nati ra ū uhe.

!éros  Ximenia americana

=úrodi gera ū uhe
Plants

130 Welwitschiaceae
Welwitschia mirabilis

160 Moraceae
Ficus cordata Thunb.

170 Urticaceae
Forsskaolea candicans

230 Polygonaceae
Polygonum plebeium

250 Nyctaginaceae
Commecarpus squarrosus

270 Aizoaceae
Galenia africana L.,
africana (Lour.) C.

275 Mesembryanthemum
Brownanthus kunzei

290 Portulacaceae
Talinum arnotii H.O.C.

320 Chenopodiaceae
Atriplex suberecta V.
sola nolothensis Ait
Suaeda plumosa Ait.
Plants growing in the lower Kuiseb area

130 Welwitschiaceae

Welwitschia mirabilis Hook.f.

160 Moraceae

Ficus cordata Thunb., Ficus sycomorus L.

170 Urticaceae

Forsskaolea candida L.f., Forsskaolea viridis Ehrenb. ex Webh.

230 Polygonaceae

Polygonum plebeium R.Br.

250 Nyctaginaceae

Commicarpus squarrosus (Heim.) Standley, Phaepetium spinosum Radlk.

270 Aizoaceae

Galenia africana L., Galenia papulosa Ecklon & Zeyher Sonder var. papulosa, Gisekia africana (Lou1.) O.Kuntze, Hypertia salsoloides (Burchell.) Adamson, Linum aestivum L., subsp. namaense Friedrich, Linum anguicarina Wawra & Peyr., Linum fenestratum (Fenzl.) Heimel., Linum sulcatum (Klotzsch) Hutch. var. sulcatum, Mollugo cerviana (L.) Ser. ex DC., Sesuvium sesquioides (Fenzl.) Verdc., Tetragonia arbuscula Fenzl. ex Sonder, Trianthema hereroensis Schinz, Trianthema trique-tra Willd. ssp. parviflora (Sonder) Jeffrey, Tribulocarpus dimorphanthus (Pax) S.Moore.

275 Mesembryanthemaceae

Browallia kunzi (Schinz) Illefn. & Bittrich, Hereronia putikamerana (Dinter & Berger) Dinter & Schwantes, Mesembryanthemum guerichianum Pax., Psilocaulon salicornioides (Pax) Schwantes.

290 Portulacaceae

Talinum arnotii Hook.f.

320 Chenopodiaceae

330 Amaranthaceae


460 Papaveraceae

Argemone ochroleuca Sweet

470 Capparaceae

Boscia albitrunca (Burch.) Gilg & Benedict, Boscia foetida Schinz subsp. foetida, Capparis hereroensis Schinz, Cleome foliosa Hook. f. var. foliosa, Maerua schinzii Pax

480 Brassicaceae

Coronopus integrifolius (DC.) Sprengel

500 Moringaceae

Moringa ovalifolia Dinter & Heberger

510 Myrothamnaceae

Myrothamnus flabellifolius Welw.

520 Crassulaceae

Cotyledon orbiculata L.

530 Vahliaeaceae

Vahlia capensis (L.f.) Thunb.

540 Montiniaceae

Montinia carphophyllacea Thunb.

550 Rosaceae

Grietium sinuatum Lichtenst. ex Burchell

600 Fabaceae

Acacia albida Del., Acacia Wawra, Adenolobus garipen Torre & Hildebrandt, Adenolobus obtusifolia (DC.) Coricena E.Mey., L. (Viv.) Pich-Serder, Prosopsis glabra, Prosopsis gregoriana (Baker) B. dreyfusana E. Meyer

640 Geraniaceae

Monseronia senegaler Engh

650 Zygophyllaceae

Trichus terestris L., Triticum simplex L., Ziziphus

670 Euphorbiaceae

Chamaecea cham Knuth, Chamaecea phylloclada Boj dinteri Pax, Ricin

680 Rutaceae

Thamnosma africar

700 Burseraceae

Commiphora glauca Comniphora vertical

730 Polygalaceae

Polygala guerichian

740 Anacardiaceae

Rhus marlothii Eng.
600 Fabaceae


640 Geraniaceae


650 Zygophyllaceae

Tribulus terrestris L., Tribulus zeilleri Sonder, Zygophyllum cilindrostomum Schinz, Zygophyllum simplex L., Zygophyllum stapfii Schinz

670 Euphorbiaceae


680 Rutaceae

Thamnosma africana Engl.

700 Burseraceae


730 Polygalaceae

Polygala guerrichiana Engl., Polygala pallida E. Meyer ex Harvey

740 Anacardiaceae

Rhus marlothii Engl.
770 Celastraceae
   Maytenus heterophylla (Ecklon & Zeyher) N.Robson, Maytenus senegalensis (Lam.) EXELL

780 Salvadoraceae
   Salvadora persica L.

790 Rhamnaceae
   Ziziphus mucronata Willd.

800 Vitaceae
   Cyphostemma currori (Hook.f.) Desc.

810 Tiliaceae
   Grewia flavescens Juss. var. flavescens, Grewia tenax (Forssk.) Fiori

820 Malvaceae
   Abutilon pycnonodum Hochl., Gossypium anomalum Wawr., Hibiscus elliottiae Harvey, Paxo-
   nia rehmannii Szyszyl., Radyera ursens (L.F.) Bullock

840 Sterculiaceae
   Hermannia affinis SCHUMANN, Hermannia garrettana ECKL. & ZEYHL, Hermannia modesta
   (Ehrenb.) MASt., Sterculia africana (Lour.) Fiori

870 Violaceae
   Hybanthus densifolius Engl.

890 Passifloraceae
   Adenia peruolitii (Engl.) Harms

900 Tamaricaceae
   Tamarix usneoides E.Meyer ex Bunge

930 Loasaceae
   Kissenia capensis Endl.

940 Cucurbitaceae
   Acanthosicyos horridus Welw. ex Hook. f., Citrullus cucurrosus Cogn., Citrullus lanati-
   tus (Thunb.) Mansfeld, Crallocarpus welwitschii (NAUDIN) Hook.f., Cucumis africanus

1030 Apiaceae
   Deserella denudata (TERER & PODL.

1050 Plumbaginaceae
   Dyerophytum africale

1070 Ebenaceae
   Euclaea pseudobenii Hiern.

1130 Periplocaceae
   Curvularia decipiens Pi

1140 Asclepiadaceae
   Asclepias burchellii, Pentarrhinum insipidum SCHINZ

1150 Rubiaceae
   Amphiassma divaricata KLOTZSCH, KOBE

1180 Hydrophyllaceae
   Codon rosenii L.

1200 Boraginaceae
   Cordia gharafi (PLOITROPTUM CURASSAV, Heliotropium ova
   Heliotropium tubulo

1220 Verbenaceae
   Plectopus garipensis

1230 Lamiaceae
   Ocimum canum SIM
tenus senegalensis (LAM.)

Cucumella aspera (Cogn.) C.Jeffrey, Cucumis meeseus (C.Jeffrey), Cucumis rigidus E.Mey. ex Naudin, Cucumis sagittatus Peyr.

1030 Apioideae

Deverra denudata (Viv.) Pfisterer & Podl. subsp. aphylia (Cham. & Schlecht.) Pfisterer & Podl.

1050 Plumbaginaceae

Dyserophyllum africanum (Lam.) O.Kuntze

1070 Ebenaceae

Euclea pseudobeanus E. Meyer ex A.DC., Euclea undulata Thunb. var. myrtina (Burchell) Heirn.

1130 Periploceae

Curroria decidua Planck ex Hook.f. & Bentil

1140 Asclepiadaceae

Asclepias buchenaviana Schinz, Hoodia currori (Hook.) Decne., Orthanthera albida Schinz, Pentarrhimum insipidum E. Meyer, Pergularia daemia (Forsskal) Chiov., Trichocalon pedicellatum Schinz

1150 Rubiaceae

Amphiasma divaricatum (Engl.) Bredek., Kohautia cynanchica DC., Kohautia lasiocarpa Klotzsch, Kohautia ramosissima Bredek., Kohautia virgata (Wild.) Bredek.

1180 Hydrophyllaceae

Codon royenii L., Codon schenkii Schinz

1200 Boraginaceae


1220 Verbenaceae

Plexipus garipensis (E. Meyer) R. Fernandes

1230 Lamiaceae

 Ocimum canum Sims

Cogn., Citrullus lana-
cus L. Cucumis africanus
1240 Solanaceae

Datura innoxia Miller, Datura stramonium L., Lycium chinense Thunb., Nectandra glauca Graham, Solanum namaquense Damm, Solanum ignotum L., Solanum rigescens Jacq.

1260 Scrophulariaceae


1280 Bignoniaceae

Cataphractus alexandri D. Don

1300 Acanthaceae


1310 Pedaliaceae

Rogeria adenophylla J. Gay ex Delile, Rogeria longiflora (Roven) J. Gay ex DC., Sesamum capense Burchf., Sesamum triphyllum Welw. ex Asch.

1360 Campanulaceae

Wahlenbergia androsacea A. DC.

1370 Lobeliaceae, Lobelia nuda Hemsley

1390 Asteraceae

Aspilia centi S. Moore, Berkheya spinosissima (Thunb.) Wied., Blumea cajra (DC.) O. Hoffm., Blumea decurrens (Vahl) Merxm., Calostephanus marlothiana O. Hoffm.,


1470 Liliaceae

Aloe asperifolia A.

1600 Poaceae


1610 Arecaceae

Phoenix dactylifera

1640 Typhaceae

Typha capensis (Roth.) Schrad.

1650 Cyperaceae

Cyperus compressus

Schoenoplectus littor
Plants growing in the Sesfontein area

130 Welwitschiaceae

Welwitschia mirabilis Hook.F.

160 Moraceae

Ficus sycomorus L.

170 Urticaceae

Forsskaolea viridis Ehrenbl. ex Webb

190 Olacaceae

Ximenia americana L. var. microphylla Welw. ex Oliver

270 Aizoaceae

Galenia africana L., Gisekia africana (Lour.) O.Kuntze, Mollugo cerviana (L.) Ser. ex DC., Sesuvium sesuvioides (Fenzl.) Verdc., Trianthema hereroensis Schinz

275 Mesembryanthemaceae

Brownanthus kuntzei (Schinz) Illeñe & Buttrich, Psyllocaulon salicornioides (Pax) Schwantes

320 Chenopodiaceae

Suaeda plumosa Aellen

330 Amaranthaceae

Amaranthus dinteri Schinz subsp. dinteri, Calicorema capitata (Moq.) Hook.f.

470 Capparaceae

Bosca albitrunca (Burcl.) Gilg & Benedict, Bosca foetida Schinz subsp. foetida, Cleome foliosa Hook.f. var. foliosa

500 Moringaceae

Moringa ovulifolia Dinter & Berger

510 Myrothamnaceae

Myrothamnus flabellifolius Welw.
600 Fabaceae


640 Geraniaceae


650 Zygophyllaceae


660 Balanitaceae

*Balanites welwitschii* (Tieghem) Exell & Mendoca

670 Euphorbiaceae


680 Rutaceae

*Thamnosma africana* Engl., *Zanthoxylum ovatifoliatum* (Engler) Finkelstein

700 Burseraceae


780 Salvadoraceae

*Salvadora persica* L.

790 Rhamnaceae

*Berchemia discolor* (Klotzsch) Hemsley, *Ziziphus mucronata* Willd.

800 Vitaceae

*Cyphostemma curtott* (Hook.f.) Desc.
810 Tiliaceae

Grewia tenax (Forsk.) Fiori

840 Sterculiaceae

Sterculia africana (Lour.) Fiori

890 Passifloraceae

Adenia pechuelii (Engl.) Harms

900 Tamaricaceae

Tamarix usnooides E. Meyer ex Huneb

990 Combretaceae

Combretum imberbe Wawra var. Petersii (Klotzsch) Engl. & Diels, Terminalia prunioideos Lawson

1070 Ebenaceae

Euclia pseudoebenus E. Meyer ex A. DC

1120 Apocynaceae

Pachypodium lealii Welw.

1140 Asclepiadaceae

Hookia courri (Hook.) Decne, Fockea angustifolia K. Schum., Orthanthera albida Schinz, Pergularia daemia (Forsskal) Chiov.

1200 Boraginaceae

Cordia ghara! (Forsk.) Ehrenb. ex Ascherson, Heliotropium ovalifolium Forsk.

1240 Solanaceae

Datura innoxia Miller, Datura stramonium L., Lycium cincinnati Thunb., Nicotiana glauca Graham, Withania somnifera (L.) Dunal, Solarium rigeundentoides Hutch.

1280 Scrophulariaceae

Sutera corymbosa (Marloth & Engl.) Henn., Sutera maxil Henn.

1280 Bignoniaceae

Cataphractus alexandri D. Don

1300 Acanthaceae

Blepharis gigantea

1310 Pedaliaceae

Harpagophyllum procumbens

1390 Asteraceae

Asphodelus enneaphyllus S. Moore, Helichrysum candicans, Pachyrrhizus Loeschea

1440 Potamogetonaceae

Potamogeton pentaphyllus

1470 Liliaceae

Aloe asperfolia A. Baker, Aloe viridiflora

1560 Juncaceae

Juncus rigidus De Winter

1600 Poaceae

Fingernuthia africana Beauv., Sipagia De Winter

1610 Arecaceae

Hyphaene petersiana

1640 Typhaceae

Typha capensis (Forsk.) Poir.

1650 Cyperaceae

Cyperus marginatus, Scirpus digitatus (Kunth) Poir.
1300 Acanthaceae

Blepharis gigantea Oberm., Ruellia diversfolia S. Moore

1310 Pedaliaceae

Harpagophytum procumbens DC. ex Meissner, Roperia longijlora (Royen) J. Gay ex DC.

1390 Asteraceae


1440 Potamogetonaceae

Potamogeton pectinatus L.

1470 Liliaceae


1560 Juncaceae

Juncus rigidus Desf.

1600 Poaceae

Fingerhulhiia africana Nees, Phragmites australis (Cav.) Steudel, Setaria verticillata (L.) Beauv., Stipagrostis giessii Kies, Stipagrostis uniplumis (Licht. ex Roem. & Schultes) De Winter

1610 Arecaceae

Hyphaene peterstana Klotzsch, Phoenix dactylifera L.

1640 Typhaceae

Typha capensis (Rohrb.) N. E. Br.

1650 Cyperaceae

Cyperus marginatus Thunb., Mariscus aristatus (Rottb.) Chermezon, Scirpus dioicus (Kunth) hoffc., Cyperus rotundus L.
Glossary of Botanical Terms

**Alternate (leaves):** One leaf at each node of the stem.

**Axillary:** Growing in the axil of a leaf.

**Bipinnate (leaf):** A pinnate leaf with the primary leaflets themselves divided in a pinnate manner.

**Bract:** A leaf, often modified or reduced, which subtends a flower or inflorescence.

**Bulb:** An underground plant organ consisting of a short stem surrounded by fleshy scale leaves.

**Calyx:** The outermost floral envelope, more or less green and usually smaller than the corolla; a whorl of sepals.

**Capsule:** A dry fruit, derived from two or more carpels, which split open in various ways to release its seeds.

**Carpel:** One of the flower’s female reproductive organs, leaf-derived and containing the ovule(s). An ovary is considered to be composed of 1-2 carpels.

**Catkin:** A pendulous, dense inflorescence of simple, unisexual flowers.

**Corolla:** The inner floral envelope, usually coloured (not green); a whorl of petals.

**Corona:** One, rarely two whorls of petal-like structures between the corolla and the stamens, outgrowth from the petals or modified from the stamens.

**Cystolith:** A crystal or deposit of lime within a cell.

**Drupe:** A fleshy fruit with one or more seeds, which are surrounded by a stony layer.

**Endosperm:** Fleshy tissue found in some seeds, containing stored nutritive material.

**Falcate:** Sickle-shaped.

**Filiform:** Thread-like.

**Flakey (bark):** Peeling off.

**Float:** The plant part that keeps a marine plant floating.

**Flowerhead:** A dense inflorescence of small, crowded, often stalkless flowers. Flowerheads may be homogamous (all flowers are bisexual and have the same shape) or heterogamous (the inner flowers are bisexual and tubular, outer flowers female or sterile and petal-like).

**Follicle:** A dry fruit, derived from a single carpel and splitting open along one side only.

**Hispid (hairs):** Bristly hair.

**Inflorescence:** The arrangement of flowers on a stem.

**Labiate:** Two-lipped.

**Lanceolate (leaf):** Narrow and elongated with a pointed tip.

**Leaflet:** Smallest unit of a compound leaf.

**Mesocarp:** The middle layer of a fruit wall.

**Opposite (leaves):** Occurring at the same node on either side of the stem.

**Ovary:** The lower part of a flower, containing one or more ovules and a style.

**Palmate (leaf):** More than one stalked pinna, resembling a hand.

**Panicle:** A branched raceme.

**Perennial:** A plant that lives more than two years.

**Perianth:** The floral envelope, composed of calyx and corolla.

**Petal:** A non-productive part of the corolla.

**Pinnate (leaf):** Compound leaf with leaflets radiating from a central axis.

**Pinnae:** The primary leaflets of a pinnate leaf.

**Pericarp:** The fruit wall.

**Pod:** A flat or ribbed fruit, elongated from the ovoid to the cylindrical, and containing the seed(s).

**Pilose:** Covered with short hairs.

**Prickly (bark):** Studded with thorns.

**Raceme:** An inflorescence with one flower stalk.

**Rhizome:** An underground stem that sends up shoots to form a new plant.

**Rosette:** A group of leaves arranged in a circle or near the ground.

**Segmented (stem):** Stems divided into segments or nodes.

**Sepal:** A floral leaf or sepal, one of the outermost parts of a flower, usually non-nectariferous.

**Septa:** Walls between two endosperm cells.

**Serrated (margins):** Toothed.

**Sessile:** Without a stalk.
Inflorescence: The arrangement of flowers on a plant.

Labiate: Two-lipped.

Lanceolate (leaf): Narrow as a lance, with tapering ends.

Leaflet: Smallest unit (leaf) of a compound leaf.

Mesocarp: The middle layer of the fruit wall (pericarp), usually fleshy.

Opposite (leaves): Occurring in pairs on opposite sides of the stem.

Ovary: The lower part of the female reproductive organ of a flower (composed of carpels), containing one or more ovules and surmounted by the style(s) and stigma(s).

Palmate (leaf): More than three segments or leaflets arising from a single point as in the fingers of a hand.

Panicle: A branched raceme, with each branch bearing a further raceme of flowers.

Perennial: A plant that lives more than two years and flowers every year.

Perianth: The floral envelopes, calyx and corolla, or the floral envelope, which cannot be distinguished in a calyx and corolla.

Petal: A non-productive (sterile) part of the flower, usually conspicuously coloured, one of the units of the corolla.

Pinnate (leaf): Compound, with leaflets in pairs on opposite sides of the midrib (cf. feather).

Pinnate (leaf): Compound, with leaflets in pairs on opposite sides of the midrib (cf. feather).

Raceme: An inflorescence consisting of a main axis, bearing single flowers alternately or spirally on stalks of approximately equal length.

Rhizome: An horizontally creeping underground stem which bears roots and leafy shoots.

Rhombic (leaf): Diamond-shaped.

Rosette: A group of leaves arising closely together from a short stem, forming a radiating cluster on or near the ground.

Segmented (stem): Stem divided in several subsequent parts.

Sepal: A floral leaf or segment of the calyx of a flower, usually green.

Septa: Walls between two chambers of a fruit or ovary.

Serrated (margins): Toothed like a saw.

Sessile: Without a stalk.
Spathe: A large bract subtending and/or ensheathing an inflorescence.

Spathulate (leaf): Shaped like a spoon.

Spike: An inflorescence of a single, long rachis with sessile flowers.

Spikelet: A small spike, as in the grasses.

Stamen: The male reproductive organ of a flower, consisting of an anther borne on a stalk.

Stellate (hairs): Star-shaped.

Stipules: A leafy, paired appendage on both sides of the base of the leaf stalk.

Succulent: With fleshy or juicy organs containing water reserves.

Thallus: A type of plant body that is not differentiated into root, stem or leaf.

Tendril: Climbing organ to coil around objects, transformed from the stem or a leaf.

Tomentose: Densely covered with short, felty, tousled hairs.

Tuber: Underground swollen organ which contains food reserves and is perennial.