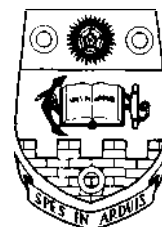


Unisa 1984



B. P. Barkhuizen

*Bome,
Struike en
Voëls van
Unisarand*

*Universiteit van Suid-Afrika
Pretoria, 1984*

B. P. Barkhuizen

Trees, Shrubs and Birds of Unisarand

*University of South Africa
Pretoria, 1984*

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University of South Africa

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'n Woord vooraf

'n Universiteit is 'n plek van vele mense en aktiwiteite. Nòg die mense, nòg die aktiwiteite staan geïsoleerd van die samelewing. Indien 'n universiteit sin wil vind in sy bestaan, moet hy ook deel van die gemeenskap wees. Om deel te wees, beteken egter nie net maar om dáár te wees nie, maar om deelnemend, ondersteunend, bydraend medeverantwoordelik te wees vir die welsyn van die gemeenskap.

Een van die sigbaarste vorme van gemeenskapsdiens wat deur 'n universiteit gelewer kan word, is sy bydrae tot betekenisvolle behoud en onderhoud van die natuurlike omgewing waarin sy kampus hom fisies bevind. Hierdie vorm van gemeenskapsdiens is egter nie net 'n poging om 'n bepaalde plek binne die struktuur van gemeenskapsfasiliteite mooi te laat vertoon nie. Dit sekerlik ook, maar veel meer nog: deur voorbeeld stel die universiteit 'n model daar van die waarde en noodsaak van 'n rustige, netjiese kompleks van geboue waarby ook die wondere van die skepping soos in die natuur aangetref 'n plek het en in harmonie met die argitektuur bewaar en in stand gehou word.

Vroegtydige en volgehoue beplanning en pogings om die natuurlike milieu en daarmee fauna en flora te behou en te bewaar, het meegebring dat UNISA enersyds voldoen aan die vereistes wat teenswoordig aan kampuskomplekse gestel word en andersyds nie die wondere van die skepping goedsmoeds negeer het nie. Daar is en word gepoog om wat deur die natuur self daargestel is sover moontlik te behou en te bewaar en waar dit nie anders kan nie, doeltbewus in ere te herstel en aan te vul. Veral natuurlike plantegroei is oordeelkundig benut om die moontlikhede van ongeskonde natuur en funksionele argitektuur in harmonie te bring.

Vir hom wat 'n rustige wandeling op die kampus onderneem en die grootsheid van die natuur ervaar, verkry Rabindranath Tagore se uit-

Foreword

A university is a place of much activity and many people. Neither the activities nor the people are isolated from society. For its existence to be meaningful a university must be part of the community, but being part implies more than simply being there: it must participate, support, contribute, assume coresponsibility for the welfare of the community.

Among the more palpable forms of community service a university can render is to help conserve and preserve the natural environment in which its campus is physically situated. Such community service is more than just an attempt to beautify a particular spot within the framework of community facilities. That too, to be sure, but much more besides: for a university exemplifies the value – indeed, the necessity – of a tranquil, orderly complex of buildings which can incorporate the natural wonders of creation and conserve and preserve these as a harmonious complement to its architecture.

Because of its timeous and unremitting planning, and its efforts to conserve the natural environment with its flora and fauna, Unisa not only satisfies the standards set for modern campus complexes; it also does not presume to negate the miracles of creation. Constant efforts are made to preserve and conserve what nature has provided – or, failing that, consciously to restore and augment the natural environment. The natural vegetation in particular was judiciously made use of to create a harmony of unspoilt nature and functional architecture.

One has only to take a leisurely stroll around the campus and experience the grandeur of nature to appreciate afresh the truth of Rabindranath Tagore's words – and the point of nature conservation: *"God, the Great Giver, can reveal His entire creation in the narrow confines of a single lane."*

spraak en daarmee die sin van natuurbewaring opnuut beteken: *“God, die Groot Gewer, kan die ganse heelal voor ons ooplê in die noue ruimte van ’n enkele laantjie.”*

Die onderhawige publikasie vorm in ’n sekere sin verslag van UNISA se uitvoering van sy bewaringstaak. Terselfdertyd bied dit ook ’n wetenskaplike uiteensetting van die samestelling, soorte en besondere kenmerke van veral flora wat alreeds in en om die kampus aangetref word. Die skrywer word ’n welwillende leser toegewens, en die leser die besieling om verder saam te werk aan natuurbewaringspogings in Suid-Afrika en elders.

THEO VAN WIJK
REKTOR
UNIVERSITEIT VAN SUID-AFRIKA

In a sense this publication is a report on how Unisa has carried out its conservation mandate. At the same time it gives a scientific account of the composition, varieties and special features of the flora in particular that may be found on and around the campus. I trust that the author will find a sympathetic readership, and that the reader will be inspired to join in the conservation effort both in South Africa and abroad.

THEO VAN WIJK
PRINCIPAL
UNIVERSITY OF SOUTH AFRICA

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B.P. BARKHUIZEN

Mr Thys de Bruyn, Unisa
 Mr Ben Farrell, Pretoria
 Prof. Dirk Greyling, Unisa
 Mr Fred Hayes, Unisa
 Mr S. Fullard, Barrydale
 Mrs A.J. Joubert, Montagu
 Mr Kobus Langeveld, Kathu
 Lt J.J. Lombard, Heidelberg (Cape)
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B.P. BARKHUIZEN

Inleiding

Telkens kom 'n mens onder die indruk van die Republiek van Suid-Afrika se merkwaardige rykdom aan plante, met sy verskeidenheid en prag wat so enig is dat dit deur die plantegroei van geen ander wêrelddeel oortref kan word nie.

Uit 'n opname van plante op die hoofkampus van die Universiteit het dit geblyk dat hier 'n aansienlike aantal inheemse bome en struie voorkom. Aan die noordoostekant van Muckleneukrant is Bourketuin geleë met 'n rykdom van inheemse plante terwyl talle spesies ook op die Unisaterrein ten suidweste van die rant natuurlik voorkom. Baie ander inheemse bome en struie is deur Unisa se Landskap- en Tuinboukomitee ook nog tot die bestaandes toegevoeg.

Om in een publikasie van beperkte omvang 'n insiggewende en breedvoerige oorsig van die voormelde gebied se inheemse bome en struie – met spesiale vermelding ook van voëlsoorte – te gee, is geen geringe taak nie. 'n Volledige bespreking is uit die aard van die omvangrykheid van soorte en vanweë die feit dat daar inhoudelik 'n beperking gestel is, nie moontlik nie.

Die doel met hierdie publikasie is egter eerstens om die leser met betrekking tot die uitleg en landskapaspekte van die hoofkampus te oriënteer. Tweedens word bekendstelling van die inheemse boom- en struiksoorte asook van die voëls wat hier op Muckleneukrant aangetref word aan personeellede, studente, skoliere of enige geïnteresseerde besoeker of plant- en dierkundige beoog. Op hierdie wyse kan die nodige belangstelling en uiteindelijke liefde

Introduction

The remarkable beauty and variety of the Republic of South Africa's indigenous vegetation is truly impressive and indeed, unsurpassed by any in the world.

A survey of the vegetation on the University of South Africa's main campus revealed a considerable variety of trees and shrubs growing in their natural habitat. Bourke Garden, situated on the north-eastern slope of Muckleneuk Ridge, boasts a wealth of indigenous vegetation, while numerous species also occur on the main campus, on the south-western slope of the ridge. In addition, various species have also been added by Unisa's Landscape and Garden Planning Committee.

To attempt a comprehensive in-depth discussion of the indigenous trees and shrubs – with special reference to the bird species abounding in the area – within the confines of one publication of limited scope, is no easy task. Furthermore, the rich variety of species and the limitations set by the scope of this book preclude detailed discussion.

The aim of this publication is primarily to orientate the reader in regard to the lay-out of the main campus and secondly, to serve staff members, students, scholars, interested visitors, botanists and zoologists as an introduction to the indigenous trees and shrubs, as well as the bird species, found on the campus on Muckleneuk Ridge. Hopefully, this will generate the necessary interest to stimulate and encourage a love for our common heritage and the prodigious wealth of plant and bird species with which this country is blessed.

vir ons eie bodem met sy besondere rykdom van plant- en voëlsoorte onder meer geprikkel en aangemoedig word.

Die werkwyse ter bekendstelling berus op botanies en dierkundig wetenskaplike gronde en behels 'n kursoriese bespreking van inheemse bome en struie volgens 'n erkende klassifikasiesisteen, dit wil sê, met vermelding van plantfamilie, geslag en soort.

Dit is noodsaaklik dat die bespreking van die families stiptelik volgens die standaardwerk van Dyer, naamlik *The Genera of Southern African Flowering Plants*, Vol. 1 and 2 (1975) moet geskied. Die leser sal derhalwe opmerk dat die familiebespreking nie alfabeties verloop nie omdat verwante families bymekaar hoort ten einde op wetenskaplikheid aanspraak te kan maak. Enkele families is uitgelaat omdat dit nie deur geslagte en spesies op die kampus verteenwoordig word nie.

Ten einde die nodige belangstelling vir die groot verskeidenheid voëlsoorte in ons onmiddellike omgewing te prikkel, word daar op beknopte wyse verwys na die spesies wat op 'n migrerende of permanente basis hul êrens op ons hoofkampus bevind.

In navolging van die sisteem van klassifikasie wat deur Carl Linnaeus, die Sweedse natuurkundige, gedurende die 18de eeu begin is, word daar in die teks eers net na die geslagsnaam en spesifieke of individuele naam van voëls verwys. Die volksname in Afrikaans en Engels word ook vermeld, hier in navolging van Prozesky in *Veldgids – Voëls van Suider-Afrika* (1974)/*A Field Guide to the Birds of Southern Africa* (1974).

Aan die einde van hierdie publikasie word die families, geslagte en soorte voëls streng volgens die klassifikasiesisteen aangedui met die verwysing van die nommers (in hakies) soos dit in die standaardwerk van Roberts, naamlik *Birds of South Africa* (1958) verskyn. Prozesky volg ook dieselfde nommers.

Verder word die groeiplek of habitat van die plantsoorte wat in hierdie publikasie ter sprake is, asook die woonplek of besoekplek van enkele voëlspesies, in die teks vermeld.

Wat Afrikaanse en Engelse algemene name betref, word die be-

The method of introduction follows scientific, botanical and zoological principles, comprising brief discussion of the indigenous trees and shrubs according to a recognised classification system; in other words, with due reference to plant families, genera and species.

The plant families are discussed in strict accordance with Dyer's standard work: *The Genera of Southern African Flowering Plants* vols. 1 and 2 (1975). The reader will thus find that the plant families are not discussed in alphabetical sequence, since related families have been grouped together in the interest of scientific accuracy. A few indigenous families not represented by genera and species on the campus, have been omitted.

In an attempt to stimulate interest in the large variety of birdlife in our immediate vicinity, brief reference is made to the numerous species which on a migratory or permanent basis, abound on the main campus.

In accordance with the classification system introduced by the Swedish naturalist, Carl Linnaeus, during the eighteenth century, reference in the text is first made to the generic and specific nomenclature while common names of birds in English and Afrikaans have also been included, in this instance according to Prozesky in *A Field Guide to the Birds of Southern Africa* (1974) / *Veldgids – Voëls van Suider-Afrika* (1974).

At the back of this book, the families, genera and species of birds are listed strictly according to the classification system, while reference is made to the numbers (in brackets) appearing in the standard work by Roberts, *Birds of South Africa* (1978). The same numbers are used by Prozesky.

The habitat of plant species discussed in this publication, as well as the various bird species found on the campus, are also mentioned in the text.

In regard to the English and Afrikaans common names, the principle has been adopted that existing, typically South African names should be preserved as far as possible. General or common

ginsel aanvaar dat bestaande en tipies Suid-Afrikaanse name in die grootste moontlike mate behou moet word. Algemene of volksname is nie alleen dikwels baie beskrywend, tiperend en interessant nie, maar beslis ook etimologies van waarde. De Winter en Von Breitenbach in *Die Nasionale Boomlys* (1978) merk tereg op dat daar 'n geweldige aantal aangetekende boom- en struikname bestaan wat onder meer korrekte, verkeerde en werklike volksname en kunsmatige produkte insluit. Baie naamduplikasies, ander teenstrydighede en die gevolglike onversoenbaarheid van soveel name met die behoefte aan klassifikasie op nasionale vlak is maar enkele probleme wat in hierdie verband genoem kan word.

In hierdie publikasie word die algemene name van bome en struie aangedui soos vervat in *Die Nasionale Boomlys* (1978). Dit is ten minste deur middel van oordeelkundige keuse of seleksie en verbetering op die grondslag van 'n gesonde ewewig tussen trou aan tradisie en aanpassing by moderne behoeftes onderneem.

In hierdie teks word die wetenskaplike en algemene name van voëls slegs aangedui omdat 'n volledige bespreking daarvan volgens 'n klassifikasiesisteem binne die raamwerk van hierdie publikasie nie moontlik is nie. Die korrekte indeling van die hoofkampus se voëlsoorte word, soos vroeër vermeld, egter volgens 'n klassifikasiesisteem agter in die boek aangedui.

Die algemene name van die voëlsoorte stem met dié van Prozesky in *Veldgids – Voëls van Suid-Afrika*, 1974, ooreen.

Aan die einde van hierdie publikasie word 'n volledige alfabetiese register van wetenskaplike en algemene name van plant- en voëlsoorte verskaf wat in hierdie publikasie vermeld is.

As hierdie werk sou bydra om belangstelling en liefde vir ons eie plantegroei en voëls op te wek en op beskeie wyse die wetensgebiede van die plantkunde en dierkunde te bevorder, sal die inisiële doelwit verwesenlik word. Hopelik sal hierdie werk daartoe bydra dat die natuurliefhebber genotvolle ure in die veld en tuin deurbring wat uiteindelik ook tot kennisverdieping in verryking sal lei.

names are often not only extremely descriptive and interesting, but undoubtedly also of etimological value. As de Winter and von Breitenbach in *The National List of Trees* (1978) so aptly remarked, the immense number of listed names for trees and shrubs include correct, incorrect and true common names, as well as artificially construed ones. The numerous duplications and other anomalies, and the resultant problems in reconciling such a plethora of names with a classification on a national scale, are but a few of the difficulties encountered in this regard.

The common names of trees and shrubs in this publication are those used in *Die Nasionale Boomlys/The National List of Trees* (1978). Fortunately, this has been compiled by judicious selection and carefully revised with a view to maintaining a healthy balance between being true to tradition on the one hand, and adapting to modern needs on the other.

Both the scientific and common names of birds have been included in the text, but the scope of this publication does not permit discussion of the various species according to a system of classification. For the correct classification of bird species found on the main campus, the reader is referred to the classification at the back of this book.

The common names of birds species included in the text are those used by Prozesky in *A Field Guide to the Birds of Southern Africa*, (1974).

A complete alphabetical list of the scientific and common names of the plant and bird species referred to in the text, appears at the back of this book.

If this book in some small measure succeeds in stimulating a love for and interest in our indigenous plant-life and birds and, in its modest way leads to a more scientific approach to botany and zoology, its initial objective will have been accomplished. Hopefully, by enhancing the nature lover's pleasant hours in the countryside and garden, this resumé will result in a deepening of knowledge and a pleasurable enrichment.

Kort historiese aanloop

In *Unisa Bulletin*, vol. 4, nr. 4, Mei 1979, word daar gekonstateer dat die Universiteit van Suid-Afrika deur die jare 'n besondere *beeld* in die samelewing as suksesvolle, dinamiese akademiese inrigting vir volwasse, deeltydse studente opgebou het.

Die voorkoms en instandhouding van die gebou en die terrein is egter deel van die uiterlike *beeld* van die Universiteit. Omdat die gebouekompleks 'n mooi estetiese geheel vorm, is dit essensieel dat die landskapbeplanning sodanig moet wees dat dit tot die verheffing van die geheelbeeld sal bydra. Die Landskap- en Tuinboukomitee van Unisa is belas met die verantwoordelikheid van landskapbeplanning, uitleg en instandhouding van onder meer die hofkampus op Muckleneuk Ridge.

Aanvanklik is mnr. H. Bruyns-Lich, 'n voormalige Direkteur van Parke en Ontspanning van die Pretoriase Stadsraad, aangestel om met die voorlopige uitleg te help lank voor die gebouekompleks verrys het. Van die goed beplande klippaadjies en mooi inheemse bome en struik wat hy aangeplant het, het ongelukkig weinig oorgebly omdat dit vir geboue moes plek maak.

Gedurende die jaar 1971 word skrywer van hierdie publikasie deur die destydse Rektor, prof. Samuel Pauw, gevra om as voorsitter van 'n subkomitee van die Terreinbeplanningskomitee op te tree. Hierdie komitee het as die Plantekomitee bekend gestaan en moes plantsoorte selekteer vir aanbeveling by die Terreinbeplanningskomitee.

Op 15 Junie 1971 vergader die Plantekomitee vir die eerste keer

Brief historical review

The *Unisa Bulletin*, vol. 4 no. 4, May 1979 stated that the University of South Africa has succeeded, through the years in gaining a remarkable *image* in society as a successful, dynamic academic institution for part-time, adult students.

The appearance and maintenance of the buildings and campus, however, are an integral part of the University's external *image* and since the buildings are an aesthetically pleasing unity, landscape planning constitutes an essential element which contributes to this overall image. Unisa's Landscape and Garden Planning Committee is responsible for planning, lay-out and maintenance, including that of the main campus on Muckleneuk Ridge.

A former Director of Parks and Recreation of the Pretoria City Council, Mr H. Bruyns-Lich, was initially appointed to assist in the preliminary lay-out, long before the buildings were erected. Since then, many of the well-planned stone pathways and attractive indigenous trees and shrubs planted by Mr Bruyns-Lich have regrettably had to make way for further building operations.

During 1971 the then Principal, Prof. Samuel Pauw, requested the author to chair a sub-committee on the Campus Planning Committee. This committee, dubbed the Plants Committee, later became known as the Plant Selection Committee and was responsible for selecting plant species for recommendation to the Campus Planning Committee.

Following the appointment of Mr Thys de Bruyn the first Landscape Gardener, the Plant Selection Committee held its first meet-

nadat die eerste veldtuinbouer, mnr. Thys de Bruyn, aangestel is. Ander lede van hierdie komitee was die volgende: Dr. A.J. Koen, Voorsitter van die Raad; mnr. A.P. Schutte, later Registrateur (Finansies); mnre. Brian Sandrock en T. Neethling, argitekte; en prof. Manie van der Schijff, van die Universiteit van Pretoria. Inisieel is daar ook van die dienste van 'n landskapargitek in die persoon van mnr. Ben Farrell gebruik gemaak.

Die primêre taak van hierdie subkomitee was om op oordeelkundige wyse die nodige beplanning te doen en plantsoorte te selekteer wat ter verfraaiing van die kampus aangeplant moes word.

Gedurende 1972 word prof. Theo van Wijk as Rektor van die Universiteit aangewys. Benewens sy legio pligte het die nuwe Rektor ook nog as voorsitter van die Terreinbeplanningskomitee opgetree. Met die herstrukturering van die verskillende komitees van die Universiteit, is skrywer op aanbeveling van die Rektor as voorsitter van die Terreinbeplanningskomitee aangewys. Die naam van hierdie komitee is later na die Landskap- en Tuinboukomitee verander.

Hierdie komitee het met die terreinbeplanning voortgegaan terwyl die uitvoering van projekte deur die destydse hoof van die Departement Geboueadministrasie, mnr. L. Nortje, en later deur sy opvolger, mnr. F.G. Hayes, onderneem is.

Die inheemse gedeelte van Bourketuin met sy unieke, gevestigde woonhuis en groot verskeidenheid plantsoorte, wandelpaadjies, mooi natuurlike plaveisel, grasperke, interessante landelike bruggies en stil waterpoele vorm deel van die verantwoordelikheid van dié komitee. Die pragtige “familietuin” in die onmiddellike omgewing van die huis word behartig deur die eggenote van die Rektor, mev. Cilna van Wijk, bygestaan deur mnr. F.A. Luther, senior veldtuinbouer by die Rektorswoning.

ing on the 15th June 1971. Other members of this committee were: Dr A.J. Koen, Chairman of the Board; Mr A.P. Schutte, who was subsequently appointed as Registrar (Finance); Messrs Brian Sandrock and T. Neethling, architects; and Prof. Manie van der Schijff, University of Pretoria. In the initial stages a landscape architect, Mr Ben Farrell, also served on the Committee. This subcommittee was primarily concerned with judicious planning and the selection of plant species to beautify the campus.

When Prof. Theo van Wijk was appointed as Principal of the University in June, 1972, he consented, in addition to his numerous duties, to chair the Campus Planning Committee. During the course of the subsequent reorganisation of the University's various committees, the author was appointed as chairman of the Campus Planning Committee on the Principal's recommendation. This committee was the forerunner of the current Landscape and Garden Planning Committee.

The committee continued to concern itself with planning of the campus, while the projects were implemented by the then head of the Department of Buildings Administration, Mr L. Nortje, and subsequently by his successor, Mr F.G. Hayes.

The maintenance of the indigenous Bourke Garden with its unique, established residence and large variety of plant species, enchanting pathways and natural paving, spacious lawns, picturesque rustic bridges and tranquil pools, forms part of the responsibilities of this committee. The enchanting “family garden” in close proximity to the residence is tended by the Principal's wife, Mrs Cilna van Wijk, with the assistance of the Senior Landscape Gardener, Mr F.A. Luther.

Doel en strewe met die beplanning

Die doel en strewe van die Landskap- en Tuinboukomitee kan kortliks soos volg saamgevat word: Verfraaiing van die kampus of verheffing van die uiterlike geheelbeeld van die Universiteit, opvoeding, navorsing en bewaring van plante in hulle natuurlike groeiplek. Hierbenewens word al die voëlsoorte wat hulle op Muckleneukrant en in die onmiddellike omgewing as bewoners of besoekers bevind, bestudeer en sover moontlik ook beskerm.

Deurgaans word na die groeiplek of habitat en tuiste van respektiewelik die plant- en voëlspecies in hierdie publikasie verwys om sodoende identifikasie van soorte in 'n mate te vergemaklik en liefde vir die skoonheid aan te moedig. Oral by die mens is liefde vir die skoonheid en die vermoë om in verwondering voor die natuur te staan, te bespeur. Dit is ook die grond waaruit alle groot werke van die kuns en die wetenskap groei. Plantkunde, het William Henry Harvey by geleentheid gesê, is 'n baie aangename dwaasheid en as sodanig jaag hy dit na.

'n Groot verskeidenheid plantsoorte is reeds toegevoeg tot die bestaandes wat natuurlik op die kampus voorkom. Die strewe bly steeds om wat hierdie aspek betref, van die hoofkampus, 'n botaniese besienswaardigheid te maak. Die plante moet as "gereedskap" van 'n aktiewe opvoedkundige program kan dien. Die landskap met al sy plante moet nie slegs as verfraaiing van die omgewing gesien word nie, maar dit moet ook as 'n waardevolle navorsingsmoontlikheid vir werknemers van die Universiteit, studente, skoolkinders, besoekers van elders en plantkundiges kan dien.

The aim and object of planning

The purpose and aim of the Landscape and Garden Planning Committee may be summed up as: Beautification of the campus or enhancement of the University's total image; education, research and the conservation of plants in their natural habitat. Furthermore, birds species found in the immediate vicinity of Muckleneuk Ridge either permanently or as visitors, are studied and, as far as possible, also protected.

In this publication constant reference is made to the habitat of plant and bird species in order to facilitate identification and encourage a love for the aesthetic. Man's love of nature and his ability to gaze in wonder at the beauty of nature, is universal and is the well-spring of all great works of art and science. Botany, as William Henry Harvey once remarked, is an extremely pleasing stupidity and as such, he is happy to pursue it.

A large variety of plant species have already been added to the existing ones on the campus. The aim, as far as this aspect is concerned, is to develop the main campus into a place of botanical interest, with the vegetation serving as the "tools" of an active educational programme. The landscape and vegetation should not be considered as mere embellishment but should provide a valuable possibility for research by staff members, students, scholars, visitors and botanists.

The aim of the committee responsible for lay-out is further characterised by a desire to attain a harmonious relationship with the immediate surroundings. To this aim the relation between liv-

Die strewe van die komitee wat vir die uitleg verantwoordelik is, word verder gekenmerk deur 'n begeerte om noue aansluiting met die onmiddellike omgewing te bewerkstellig. Die verhouding van die lewende organismes tot hulle lewende en lewelose omgewing en hul verhouding onderling, is 'n aspek waarop deurgaans gelet word.

ing organisms and their living and lifeless environment, as well as their mutual relationship, is an aspect which is constantly borne in mind.

Uitleg en algemene riglyne

Die werksaamhede van die Landskap- en Tuinboukomitee vir sover dit die hoofkampus betref, sluit Bourketuin aan die oostekant van Muckleneukrant in en die gebied geleë aan die suidwestelike helling van hierdie rant. Saam met Salvokop wat direk wes geleë is, vorm Muckleneukrant 'n poort na die sentrale stadsgebied van Pretoria.

Muckleneukrant is deel van 'n reeks rante met 'n eiesoortige karakter en voorkoms. Plek-plek word die boomlose grashange onderbreek deur boomgroepe. Hierdie groepe inheemse bome en struik wissel in samestelling van **Suikerbosse** – 'n *Protea*-soort – tot 'n byna tipiese Magaliesbergbosveld. Klowe en waterlopie besit 'n eie karakter vir sover dit plantegroei en plantrangskikking betref. Kwartsietdagsome veral op die kruin van die rant, is 'n verdere besondere eienskap wat die rant se karakter bepaal.

Die terrein waarop die hoofkampus met sy mooi gebouekompleks geleë is, bestaan uit 'n deel van 'n groot kom wat deur Muckleneukrant, Salvokop, Schanskop en Klapperkop gevorm word.

Binne die visuele eenheid wat deur hierdie reeks koppies gevorm word, is die gebouekompleks van die Universiteit, die terreine van die Afrikaanse en Engelse onderwyskolleges en die Fonteinedal-natuurreservaat geleë.

Die breë landskap- en beplanningsbeleid kom daarop neer dat hierdie universiteitsterrein 'n visuele eenheid met die onmiddellike omgewing moet vorm. Beplanning is derhalwe sodanig dat

Lay-out and general guidelines

The responsibilities of the Landscape and Garden Planning Committee in regard to the main campus includes Bourke Garden on the eastern side of Muckleneuk Ridge and the area on the south-western slopes. This area with Salvokop, situated directly west of the campus, forms a natural gateway to Pretoria's central urban area.

Muckleneuk Ridge is one of a series of distinctive hills consisting of grassy slopes interspersed with clumps of trees. These indigenous trees and shrubs vary from the **Sugarbush** – a type of *Protea* – to almost typical Magaliesberg Bushveld with a unique distribution along streambanks and in tiny kloofs characteristic of these hills. Quartzite outcrops, especially on top of the Ridge, are another feature contributing to the distinctive qualities of the Ridge.

The area occupied by the main campus with its impressive buildings forms part of a large basin consisting of Muckleneuk Ridge, Salvokop, Schanskop and Klapperkop.

Within the visual unity formed by these hills, we find the buildings of the University, the campuses of the English and Afrikaans colleges of education and the Fountains Valley Nature Reserve.

Broadly speaking, the policy underlying landscaping and planning is to ensure that the campus forms a visual unity with its immediate surroundings. To this aim all possible and feasible plans have been devised to ensure that the University campus will blend harmoniously with its surroundings, in order to effectuate the ar-

daar voortdurend op allerlei moontlike en praktiese uitvoerbare wyses na aansluiting met die omgewing gesoek word. Hierdeur kan die argitektoniese konsep, naamlik dat die gebou uit die natuurlike berg moet “groeï” soos deur die universiteitsargitekthe be- paal, tot sy reg kom.

Die argitekthe van die Universiteit het per geleentheid soos volg oor hierdie aangeleentheid kommentaar gelewer: “Die landskap- konsep waardeur natuurvingers die formele argitektoniese gebied binnedring, sal heel waarskynlik in die toekoms in die teenoorge- stelde rigting ontwikkel. Die uitgangspunt van die argitektoniese ontwerp was om bouwerk nie op die natuur te dompel nie, maar om die berg diep uit te kerf om die gebou te ‘ontvang’ – sodat die omskepte omgewing die lang drywende vorm van die bosstruktuur benodig.”

Ten einde die beleid van aansluiting met die omgewing – met inagneming van die argitektoniese – deur te voer, is dit essensieel dat plantegroei vanaf aangrensende terreine tot by die gebouekom- pleks deurvloei.

Alhoewel daar naby die geboue van enkele uitheemse jaar- en meerjarige plantsoorte, bome en struik gebruik gemaak word, is die detailbeplanning sodanig dat daar voortdurend na die skepping van ’n tipies Suid-Afrikaanse landskap met ’n groot verskeiden- heid inheemse plantgemeenskappe gestrewe word.

Die grond bestaan uit skalie wat nie vir die verbouing van alle plantsoorte geskik is nie. Dit bewerk baie moeilik. ’n Chemiese grondontleding het aangetoon dat die grond baie suur is. Die grondvrugbaarheid is redelik swak, maar met die nodige bemes- ting en toevoeging van organiese materiaal is dit tog vir plantver- bouing geskik.

Die skalieagtige bogrond moet deeglik bewerk word. Dit kry ’n ruim toediening kompos en superfosfaat. Op verskeie plekke word die grond nie dieper as 20–25 cm bewerk nie en nogtans is die re- sultate wat behaal word verstommend. Die teorie is dat bakteriese aktiwiteite wat die organiese materiaal, soos kompos en mis, af-

chitectural concept envisaged by the University’s architects, name- ly, that the buildings should “grow” out of the natural hill.

In regard to this unique aspect, the University’s architects have commented: “The landscaping concept, enabling the fingers of nature to penetrate into the architectural terrain, will in all proba- bility be reversed in future. The point of departure for the architec- tural design was not to dump the buildings onto nature, but to carve the hill out to ‘receive’ the buildings, thereby recreating an en- vironment in which the long, floating structure is complemented by the surrounding vegetation.”

In order to implement the policy of adapting to the environment – with due consideration of the architectural features – it was es- sential to ensure that the vegetation in the adjacent areas should penetrate into and form an integral part of the buildings.

Although a number of foreign annual and perennial plants, trees and shrubs have been used near the buildings, the general aim of creating a typically South African landscape with a large variety of indigenous plant families, is constantly ensured by detailed and careful planning.

The shaly soil is not suitable for all types of plants; it is very difficult to cultivate and according to a chemical soil analysis, the soil is extremely acid. Moreover, it is not very fertile, but with the addition of the necessary fertilisers and organic material, it has been made suitable for cultivation.

Thorough cultivation and the addition of ample amounts of su- perphosphates and compost are essential in this shaly soil. In some areas, where the soil is cultivated to a depth of no more than 20 to 25 cm, astounding results have been achieved. The theory is that bacterial activity which breaks down organic materials such as compost and manure and makes it available to the plants, occurs mainly in the upper layers of the soil – some 20 cm in depth. Research has revealed that drought-resistant trees have two sets of roots. Under moist conditions the primary root system spreads over a large area and absorbs most of the soluble plant food. In

breek en toeganklik vir die plante maak, hoofsaaklik in die boonste oppervlakte van die grond plaasvind – ongeveer 20 cm diep. Navorsing het getoon dat droogtebestande bome twee stelle wortels het. Die primêre wortelstelsel sprei oor 'n groot oppervlakte en dit is hierdie sisteem wat die meeste van die oplosbare plantvoedsel opneem as die bome vogtigheid kry. As die grond uitdroog in die somer, sak die watertafel en om dan nog vog te kan bekom, moet die wortels diep in die onderlaag deurdring. Hiervoor word 'n sekondêre diep geleë wortelstelsel ontwikkel, terwyl die primêre oppervlakkige wortelstelsel tydelik ophou om te funksioneer.

By die beplanning moes daar altyd met die verspreiding van ryp rekening gehou word. Ryp hang nou saam met topografie. Koue, skerp, afgekoelde lug is swaar, sodat dit in stil nagte deur lugdreinerings in laagtes en afgeslote valleie opdam. In Pretoria, byvoorbeeld, kry die noordelike hange van die rantjies van Muckleneuk en Magaliesberg feitlik nooit ryp nie, maar in die tussengeleë valleie kom dit elke nag gedurende die winter voor.

Benewens voorafgaande beknopte bekendstelling van die historiese agtergrond, doelstellings en uiteensetting van die algemene riglyne vir die landskapbeplanning, is besonderhede van die geskiedkundige Bourketuin en enkele besondere beplanningsprojekte van belang.

the summer when the soil dries out, the water level falls and in order to obtain moisture, the roots penetrate deeply into the subsoil. For this purpose the trees develop a secondary, deep root system while the primary, surface root system temporarily ceases to function.

In planning the lay-out of the gardens, due regard was constantly given to the distribution of frost, which is closely linked to topography. Cold, cool air is heavy and during windless nights tends to collect in low-lying areas and secluded valleys. In Pretoria, for instance, frost almost never occurs on the northern slopes of the Muckleneuk and Magaliesberg ranges, while it regularly occurs throughout the winter months in the valley separating these hills.

Besides this brief resumé of the historical background and the elucidation of the aims and general guidelines of landscape planning, a few details concerning the historical Bourke Garden and planning projects are also of interest.

BOURKETUIN

In 1926 het mnr. en mev. Myles Esmond Bourke die eiendom as 'n trougeskenk ontvang. Destyds was dit 'n kaal en klipperige stuk grond waaruit later, na bykans 'n halwe eeu, 'n pragtige pronktuin teen Muckleneukrant opgebou is.

Cloghereen – die Ierse naam vir 'n plek met baie klippe – grens aan Unisa se hoofkampus teen die noordelike hang van Muckleneukrant. Gedurende Julie 1969 het die Universiteit die Bourkelandgoed van mev. Marguerite Bourke gekoop en sodoende nog 2,5 hektaar by sy bestaande terrein gevoeg.

In 'n persverklaring van 23 Julie 1969 word gekonstateer dat die hoofdoel met die aankoop van die grond die behoud van die pragtige voorkoms en botaniese besienswaardigheid van die heuwel is. Die Universiteit het van meet af aan uitgegaan van die standpunt dat die natuurlike plantegroei van Cloghereen beskerm moet word – 'n doelwit wat voortdurend met nougesetheid deur die Rektorspaar en die Landskap- en Tuinboukomitee nagestreef word. Verdere toevoegings tot die bestaande soorte plante word steeds onderneem.

Hierdie besondere natuurtuin kan spog met meer as 180 plantspesies waaronder pragtige, groot inheemse boom- en struiksoorte tel. Die groot verskeidenheid plantspesies is meesal deur die egpaar Bourke van saad gekweek wat in die veld versamel is. Destyds was daar nie kwekerye waar plante en saad bekom kon word nie.

Agter die huis loop verskeie voetpaadjies tot aan die bopunt van

BOURKE GARDEN

In 1926 this terrain was given to Mr and Mrs Myles Esmond Bourke as a wedding gift. Almost half a century later, that erstwhile bare, stony ridge has been transformed into a delightful garden.

Cloghereen – an Irish word meaning a place of many stones – is situated on the northern slope of Muckleneuk Ridge adjoining Unisa's main campus. The University purchased the Bourke estate from Mrs Marguerite Bourke in July, 1969, thereby adding another 2,5 hectare to its existing site.

In a press release on the 23 July 1969, it was stated that the University's main purpose in purchasing the site was to conserve the beautiful surroundings and botanically interesting vegetation on the Ridge. And indeed, since acquiring the estate, the University has endeavoured to conserve the natural vegetation of Cloghereen – an aim which is still faithfully pursued by the Principal and his wife, and by the Landscape and Garden Planning Committee, who constantly add new plant species to the garden.

This unique natural garden boasts more than 180 plant species including some beautiful large, indigenous trees and shrubs. The majority of the considerable variety of plant species were propagated from seeds collected in the veld by Mr and Mrs Myles Bourke, since at that time, nurseries did not stock seeds of these species.

From the rear of the residence various pathways lead to the highest area in the garden. These paths are all paved with the

die tuin. Hierdie wandelpaadjies, met verskillende patrone, is met natuurlike klippe van die omgewing uitgelê. So is daar die “wawielpad” met vyf los wawiele wat met klippe in die paadjies ingemessel is. Hierdie idee kom oorspronklik van Alexis Preller, aldus mev. Bourke.

Naby die “wawielpad” is een van die hoogtepunte van die tuin. Wyle mnr. Bourke het hier twee sitplekke aangebring van versteende hout wat bykans 220 miljoen jaar oud is. Oral in hierdie groot tuin met sy wye verskeidenheid immergroen en bladwisselende bome en struie is mooi rusbankies aangebring wat ’n landelike atmosfeer skep. Liefhebbers van die Suid-Afrikaanse plantegroei en dierelewe kan rustig op die bankies verpoos om na die plantegroei en voëls te kyk waar laasgenoemde veral in die mooi, groot bome of by die stil, rustige waterpoeltjies kwetter en baljaar.

Vandag is Cloghereen voorwaar ’n lushof met sy eie watervoorraad bestaande uit ’n boorgat en twee opgaardammetjies. Soos wyle mnr. Bourke, is ook die Universiteit van Suid-Afrika daarop ingestel om die natuurlike plantegroei van hierdie besondere rant te verryk en noulettend in stand te hou. Positiewe natuurveredeling op Muckleneukrant is die ideaal, en die pragtige voorbeeld wat deur die Bourke-egpaar gestel is, behoort deurentyd ’n blywende inspirasie te wees.

Om die rykdom en verskeidenheid van hierdie tuin breedvoerig te bespreek, word nie binne die bestek van hierdie publikasie beoog nie. In die teks word daar egter deurgaans na die inheemse boom- en struiksoorte, asook die voëlspesies verwys wat in Bourke-tuin voorkom.

Sommige soorte is later aangeplant ten einde die verskeidenheid wat deur die oorspronklike eienaars geskep is, aan te vul. Party van die voëlsoorte wat in hierdie pragtige natuur tuin voorkom, is slegs besoekers, terwyl andere hulle in die bome en struie te midde van die stadsgewoel tuisgemaak het.

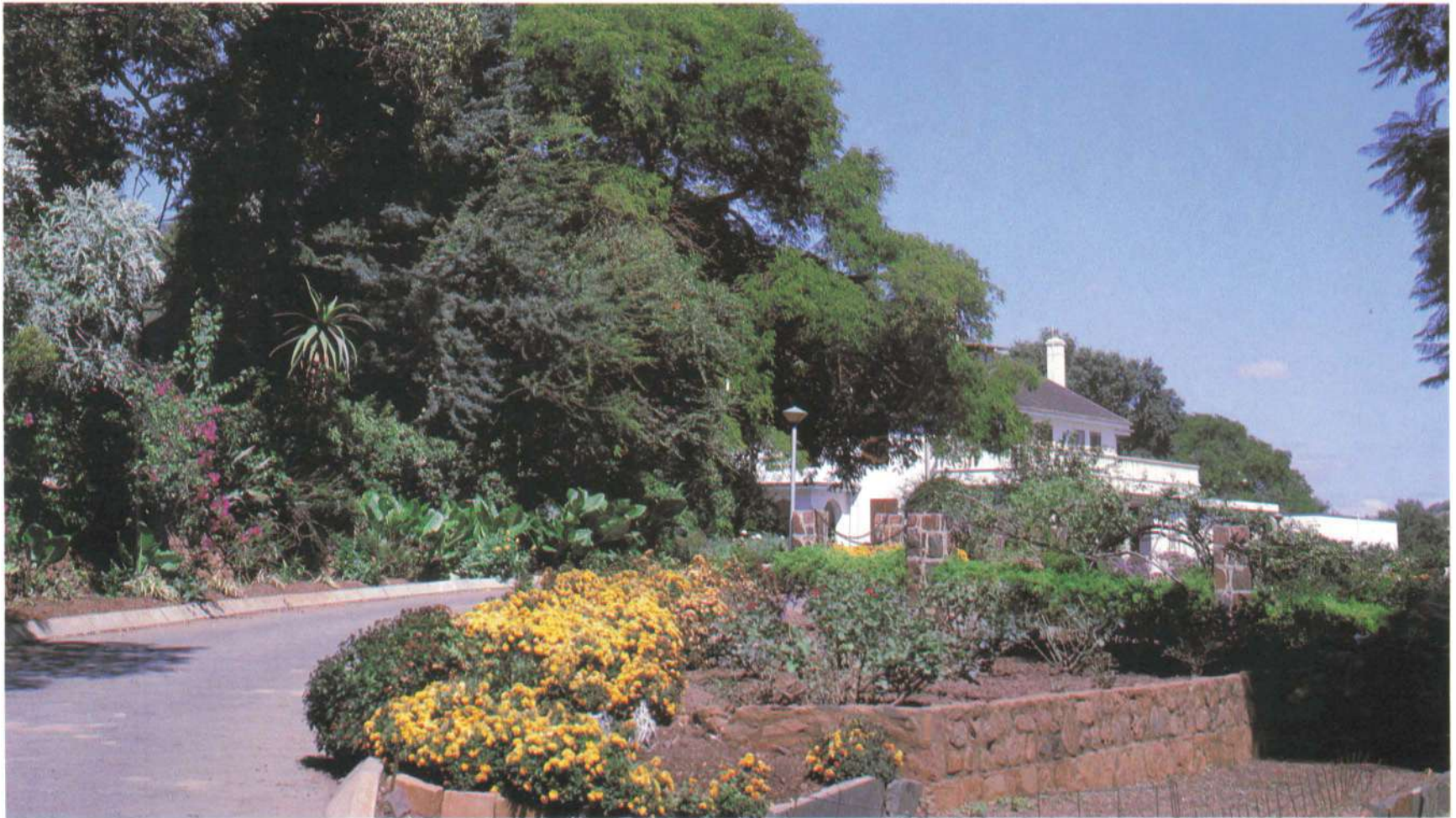
natural stone found in the area. For example, there is the “wagon-wheel path”, with five separate wagon-wheels in natural stone mortared into the path. According to Mrs Bourke, this idea was originally suggested by Alexis Preller.

One of the garden’s outstanding features is situated quite close to the “wagon-wheel path”, where Mr Bourke erected two rustic benches of fossilised wood, believed to be nearly 220 million years old. In these spacious gardens, boasting a large variety of evergreen and deciduous trees and shrubs, attractive benches create a peaceful, rustic atmosphere where interested visitors may pause to admire the wealth of indigenous plants thriving in their natural habitat and the numerous birds chirping in the stately trees or frolicking beside the cool, tranquil pools.

Cloghereen is today indeed a paradise. It has its own water supply, provided by a borehole and two tiny reservoirs. Like the late Mr Bourke, the University of South Africa continually strives to enrich and maintain the natural vegetation occurring on this unique ridge. The ideal of positive improvement and the wonderful example set by the original owners should serve as a permanent inspiration.

This publication does not aspire to a detailed discussion of the rich variety of the natural vegetation in this garden. However, constant reference is made in the text to the indigenous trees and shrubs as well as the bird species which abound in the Bourke Garden.

The shrubs and trees planted by the original owners have been supplemented by various species added at a later date. Some of the bird species found in this beautiful, natural garden are migratory visitors, while others have made themselves at home in the trees and shrubs, a stone’s throw from the bustle of the city.



Die Rektorswoning, Cloghereen, word op linkerkant omsom deur die pragtige natuurlike Bourketuin (p. 12)

Cloghereen, the residence of the Principal, is bounded on the left by the splendid natural Bourke Garden (p. 12)

DIE WANDELPAD VAN UNISA

In die nabyheid van die gebouekompleks by Unisarand bestaan daar vandag nog gelukkig sekere inheemse plante wat bykans ongeskonde in hulle habitat gesien en wetenskaplik bestudeer kan word. Hierdie feit het tot die beplanning van 'n wandelpad in die klein aanleiding gegee.

By die beplanning daarvan het die natuurbewaringsgedagte wel na vore gekom, maar die skep van 'n geleentheid vir persone om ontspanne en rustig met die natuur kennis te maak, is eweneens as van kardinale belang beskou.

Die Wandelpad wat noord van die laboratorium begin, is netjies met klippe van die omliggende omgewing geplavei. Vanaf die laboratorium loop die paadjie in 'n oostelike rigting om dan later verder suidwaarts deur die byna swartkleurige rantjie te kronkel. Verderaan lei dit jou weswaarts tot waar een van die rusbankies aangebring is. Nadat die Wandelpad Unisaweg kruis, loop dit uiteindelik verby die nuwe Tegniese Gebou tot by die Watergat wat in 'n gedeelte van die bekende Fonteinedal geleë is.

Waar die Wandelpad begin, sal *Erythrina lysistemon* gesien kan word. Algemeen staan dit as die **Gewone Koraalboom** bekend. Hierdie boomsoort blom gedurende die vroeë lente. Die lang gesteelde trosse oranjerooi blomme word dan deur talle insekte besoek. Laasgenoemde lok weer sekere voëlsoorte soos onder andere **Suikerbekkies** (Nectariniidae), **Vlieëvangers** (Muscicapidae) en **Glasgies** (Zosteropidae).

Die **Basboom** (*Dais cotinifolia*) met sy netjiese voorkoms, blin-

UNISA'S NATURE TRAIL

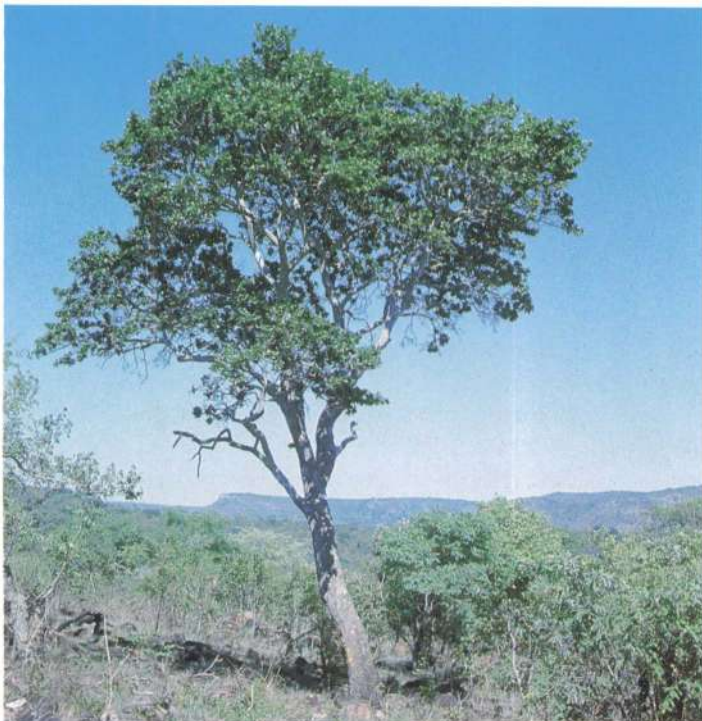
Close to the buildings on Unisa Ridge, certain species of indigenous plants have survived virtually untouched, where they may be admired and scientifically studied in their natural habitat. This fortunate circumstance has prompted Unisa to lay out a tiny nature trail in this area.

The trail was primarily planned with the idea of nature conservation in mind, although the intention of affording an opportunity to study nature at close quarters in a relaxed and peaceful atmosphere, was considered almost equally important.

The Nature Trail, which is neatly paved with stones from the surrounding hills, commences north of the laboratory and runs in an easterly direction before turning to the south and winding its way along the almost black ridge atop the hill. A little farther along, it turns to the west and leads to one of the many benches provided in the gardens. From there it crosses Unisa Road and eventually continues past the new Technical Building to the Water Hole situated in a part of the well-known Fountains Valley.

Visitors setting out to explore the nature trail are welcomed by a specimen of *Erythrina lysistemon*, generally known as the **Common Coral tree**. This species flowers in the early spring and its long-stemmed clusters of orange-red flowers attract numerous insects. The insects in turn attract various species of birds, including **Sugarbirds** (Nectariniidae), **Flycatchers** (Muscicapidae), and **White-eyes** (Zosteropidae).

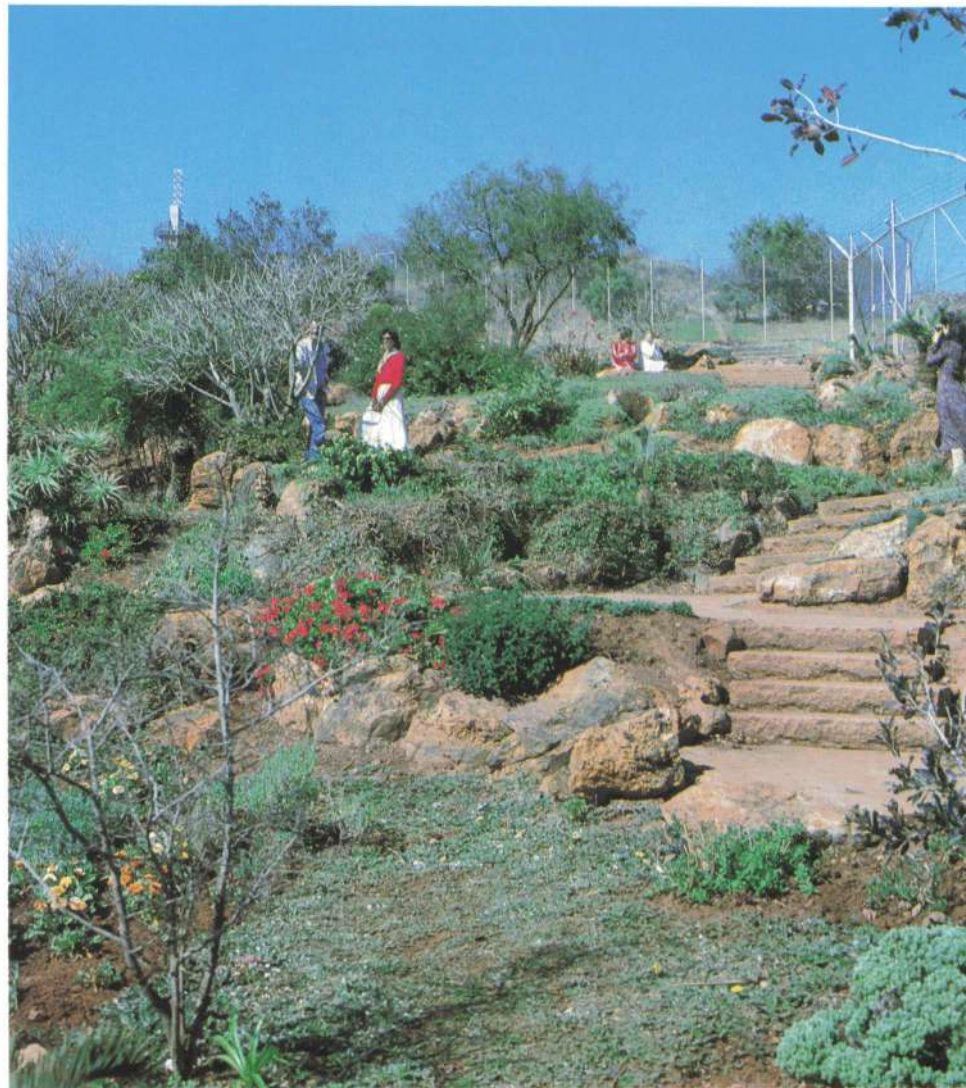
In the spring, the **Pompon Tree** (*Dais cotinifolia*), a tidy-



Ochra pulchra
(Lekkerbreek — Peeling Plane) (pp. 16, 18, 96)

In hierdie rotstun begin die
Wandelpad wat deur die
hoofkampus kronkel (p. 14)

The Nature Trail which
meanders through the main
campus, starts in this rock-
ery (p. 14)



kerige blare en trossies rooskleurige, stervormige blommetjies sal ook die oog van die wandelaar tref wanneer daar in die lente by die beginpunt van die Wandelpad 'n rukkje stilgestaan word.

Hoër op kan daar met die **Gewone Drolpeer** (*Dombeya rotundifolia* var. *rotundifolia*) kennis gemaak word. In die vroeë lente is hierdie spesie met 'n massa wit, peerbloeiselagtige blommetjies oortrek. Naby hierdie boomsoort sal die immer bewegende, energieke en aktiewe **Paradysvlieëvanger** (*Terpsiphone viridus*) waargeneem kan word. Blitsig sit hulle gewoonlik die verskeidenheid insekte in die nabyheid van die blommende boom agterna.

Watter Transvaler ken nou nie die **Stamvrug** (*Bequaertiodendron magilismontanum*) nie? Die wandelaar sal die sierlike vrugte aan die dikkerige stamme en takkies gedurende die somermaande dadelik herken. Die leeragtige blare met 'n viltlaag van silwerkleurige hare aan die agterkant is eweneens baie kenmerkend en ook opvallend. Vroeër het bobbejaantroppe in hierdie swartkleurige rantjies ongesteurd rondgestap en die veldvrugte verorber.

Iewers langs die pad groei *Combretum erythrophyllum* (**Rivier-vaderlandswilg**). Veral in die herfs wanneer die blare pragtig verkleur, sal dit maklik uitgeken kan word.

As die windjie waai en die droë viervlerkige vrugte van die **Raasblaar** (*Combretum zeyheri*) ritsel, sal identifikasie selfs vir die amateurplantkundige nie moeilik wees nie.

Teen die hange van die rante groei ook een van ons bekendste *Protea*-soorte in Transvaal, naamlik *Protea caffra* (**Gewone Suikerbos**). Hierdie spesie met sy knoetsige stam en ligrooskleurige blomme is nie te versmaai nie, al is dit nie so opvallend soos sekere Kaapse soorte nie. Dit is origens bekend dat die **Swartkroonlaksman** (*Tchagra senegala*) dikwels in die toppe van hierdie boomsoort opgemerk kan word.

Vrywe die blare van die **Kerriebos** (*Hypericum revolutum*) wat langs die wandelpad staan en ervaar die kerriegeur wat dit afgee. Die blommetjies van hierdie spesie is geel.

Al van die **Lekkerbreek** (*Ochna pulchra*) gehoor? Hierdie

looking tree with glossy leaves and clusters of tiny, pink, star-shaped flowers, will catch the eye of anyone who pauses to look about near the beginning of the Nature Trail.

A little nearer the ridge of the hill, the **Common Wild Pear** (*Dombeya rotundifolia* var. *rotundifolia*) may be admired. In the early spring this tree is covered in masses of small white flowers which are rather similar to pear-blossoms. Near this tree the ceaselessly fluttering, energetic **Paradise Flycatcher** (*Terpsiphone viridus*) will usually be seen darting swiftly after the insects buzzing about the flowers.

Every Transvaler is surely familiar with the **Transvaal Milk-plum** (*Bequaertiodendron magilismontanum*) and will immediately recognise the decorative fruit borne on the sturdy stems and branches of this species during the summer months. The leathery leaves, covered with a layer of silvery, appressed hairs on the underside are also very striking. Many years ago, baboons frolicked undisturbed among these black ridges and enjoyed the fruit of these trees.

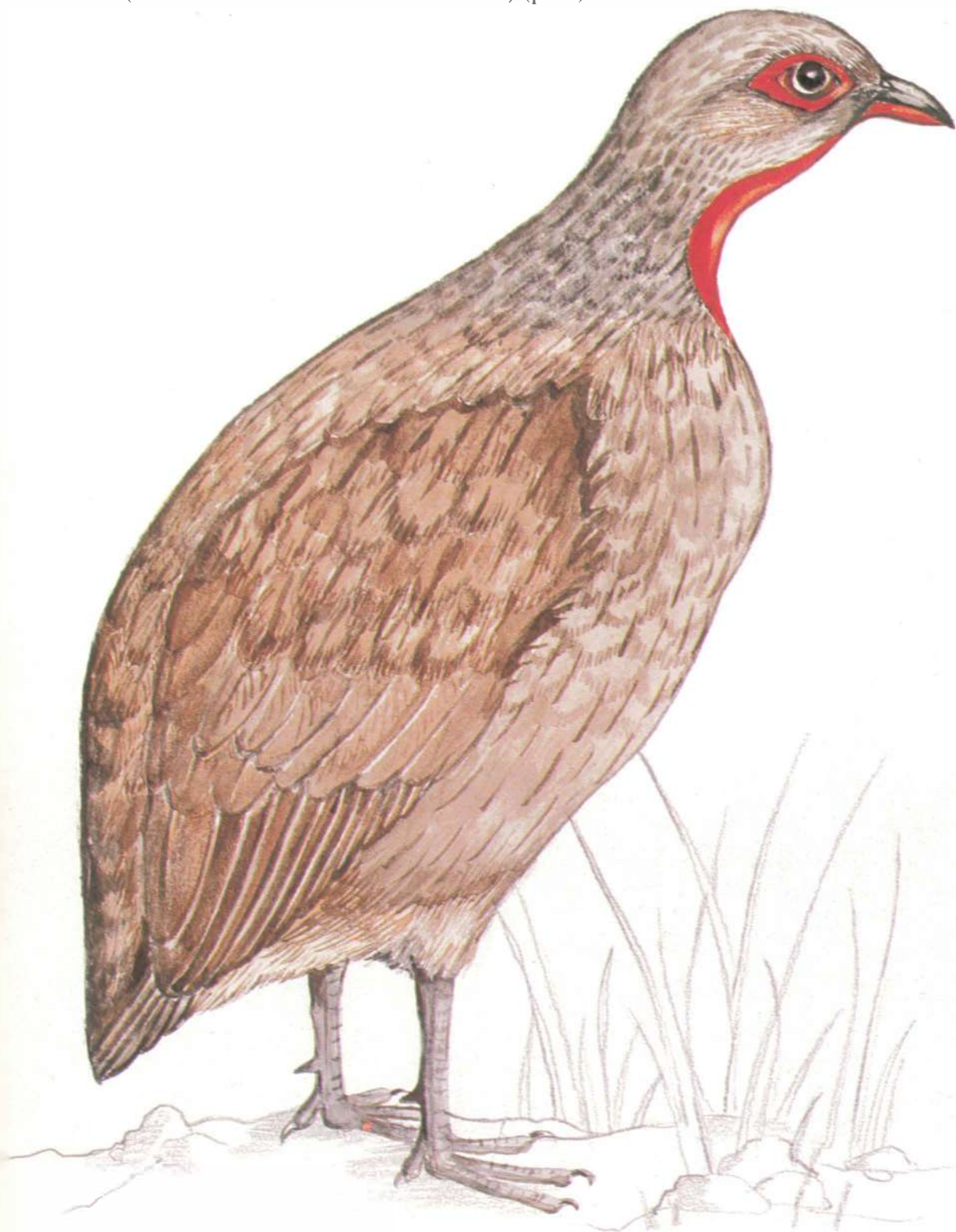
Along the trail you will see the *Combretum erythrophyllum* (**River Bushwillow**). This tree is easily recognised, particularly in the autumn, when the leaves turn a beautiful, reddish colour.

When the breeze rustles through the dry, four-winged fruit of the *Combretum zeyheri* (**Large-fruited Bushwillow**) even the amateur botanist will have little difficulty in recognising this species.

One of our best-known species of Transvaal *Proteas* flourishes on the slopes of Muckleneuk Ridge; *Protea caffra* (**Common Sugarbush**). This species, with its gnarled stem and pale pink flowers, is most attractive, even though it is not as striking as some of the Cape species. The **Black-crowned Shrike** (*Tchagra senegala*) is frequently seen perching atop one of these **Sugarbushes**.

Rub the leaves of the *Hypericum revolutum* (**Curry Bush**) in your hands and smell the strong odour of curry emitted by this spe-

Francolinus afer
(Rooikeelfisant – Red-necked Francolin) (p. 18)



boom met sy gryswit bas en die sitroengeel voorkoms as die jong blaartjies en die blomme in die lente uitkom, kan maklik uitgeken word deur slegs een van sy takkies af te buig.

Langs die Wandelpad groei daar ook **Wildemispelbome** (*Vangueria infausta*). Die vrugtevreterende **Tiptolle** (Pycnonotidae), **Muisvoëls** (Coliidae) en verwante spesies baljaar gewoonlik gedurende die najaar in hierdie bome. Eet maar gerus een van die geelbruin vrugte wat 'n droë frankerige smaak het. Dikwels word die **Rooikeelfisante** (*Francolinus afer*) in die nabyheid van hierdie spesie aangetref. Gewoonlik vlieg hulle skielik voor jou op.

Nader die omgewing van die Watergat baie versigtig en kyk onder andere mooi rond of die spierwit **Heilige Ibis** of **Skoorsteenvoëls** (*Threskiornis aethiopicus*) met hulle kaal, leeragtige swart koppe en nekke weer op die kampus rondstap. Gewoonlik stap hulle na 'n reënbui in die vlak water naby die Watergat of op die grasperke rond om insekte te soek.

Naas die enkele boom-, struik- en voëlspesies wat kortliks ter oriëntering geskets is, sal die goeie waarnemer en natuurliefhebber nog baie ander soorte bespeur en identifiseer.

Vir die moeë wandelaar is die houtbankie by die Watergat ideaal. In hierdie gedeelte van die Fonteinedal is baie ander voël- en boomsoorte aanwesig wat die belangstelling sal prikkel.

cies with its tiny, yellow flowers. This species may be seen along the Trail.

Have you heard of the *Ochna pulchra* (**Peeling Plane**)? This tree with its grey-white bark turns a beautiful lemon-yellow when the young leaves and flowers appear in spring and may be recognised by the ease with which its branches will break if bent downwards.

Along the Nature Trail you will also see the *Vangueria infausta*, (**Wild Medlar**). Numerous fruit-eating birds such as **Bulbuls** (Pycnonotidae), **Mousebirds** (Coliidae) and other species, often frolic about these trees in the autumn. Taste the yellow-brown fruit; it has a dry, astringent taste. Flocks of **Red-necked Francolins** (*Francolinus afer*) are frequently seen near these trees and usually start up in fright as one approaches.

Walk stealthily as you approach the Water Hole and you may be rewarded by seeing various bird species, including the snow-white **Sacred Ibis** (*Threskiornis aethiopicus*) with its bare, leathery black head and neck. After a shower of rain they are frequently seen wading in the shallow water near the Water Hole or stalking across the lawns in search of insects.

The observant nature-lover will be able to see and identify numerous species of trees, shrubs and birds besides the few briefly described above.

Rest awhile on the rustic bench beside the Water Hole and admire the numerous other interesting species of birds and plants found in this part of Fountains Valley.



DIE WATERGAT

Die Wandelpad lei jou uiteindelik na die Watergat wat ten suide van die gebouekompleks op Muckleneukrant geleë is.

Die ontspanne wandelaar kan rustig op die houtbankie gaan sit om te rus en te peins oor vervloë jare toe die eerste Blankes in 1842 'n rusplekkie in die waterryke Fonteinedal gevind het.

Die Watergat is werklik in 'n gedeelte van die Fonteinedal geleë wat op 25 Februarie 1895 deur pres. Paul Kruger se proklamasie as 'n wildbeskermingsoord verklaar is – waarskynlik die eerste in sy soort in die hele Afrika.

In die nabyheid van die destydse waterryke Apiesriviervallei het letterlik honderde blou-apies in onder meer die **Witstinkhout** (*Celtis africana*), **Olienhout** (*Olea africana*) en **Soetdoringbome** (*Acacia karroo*) gewoon en gespeel. Dit was in hierdie omgewing waar moeë en dorstige nedersetters meer as 100 jaar gelede uitgespan het om rus en verkwikking in die bos- en waterryke omgewing te vind.

Jou gedagtes word ook teruggevoer na die dae toe daar na die oewers van die Apiesrivier en die onmiddellike omgewing as 'n ware “leeunes” verwys is. Toe voëlsoorte in 'n groot verskeidenheid in die digte inheemse bome en bosse en op die water rondgevlieg, gewoon en gesing het. Voëlsang is gewoonlik die mooiste in die nabyheid van water, word gesê.

Van die destydse bykans ongerepte natuur het nie veel oorgebly nie, maar die natuurliefhebber sal vandag tog nog talle voëlsoorte hier kan waarneem.

THE WATER HOLE

The Nature Trail leads to the Water Hole, to the south of the buildings which top Muckleneuk Ridge.

Beside the Water Hole, weary visitors may rest awhile on the rustic bench and recall the days of yore, when in 1842 the first Whites settled in the Fountains Valley.

The Water Hole is situated in that part of Fountains Valley proclaimed a wild-life sanctuary by President Paul Kruger on the 25th February, 1895 – probably the very first of its kind on the African continent.

In the vicinity of the then well-watered Apies River Valley, numerous trees, including the **White Stinkwood** (*Celtis africana*), **Sweet Thorn** (*Acacia karroo*) and **Wild Olive** (*Olea africana*), were frequented by hordes of vervet monkeys which visited or lived in these trees. Many years ago, this well-wooded, well-watered valley was a haven for thirsty, weary settlers, who outspanned there in search of peace and quietude.

Let your mind wander back to the days when the banks of the Apies River were known as a veritable “lion’s lair” – when the calls and cries of numerous bird species echoed among the dense, indigenous trees along the river banks. Birdsong, they say, is at its loveliest near water.

Although not much remains of the undefiled, natural beauty of this spot, the nature lover may still revel in the numerous bird species which frequent this area.



Besoekers wat skielik by die Watergat uitkom, merk gewoonlik dadelik die **Hadida-ibis** (*Bostrychia hagedash*) op, veral wanneer hy skielik opvlieg met 'n lang droewige *ha-ha, ha-di-daa*. Dit is ook dan wanneer die **Bontkiewiet** (*Vanellus armatus*) onrustig van die Watergat wegdraf om die wêreld kopknikkend vanuit 'n veiliger posisie te bekijk, terwyl ander voëlsoorte eweneens tydelik verskrik wegvlieg.

Mettertyd sal die **Hoephoep** (*Upupa africana*) sy welluidende en kenmerkende roepgeluide vanuit 'n boomtak laat hoor, terwyl die **Gewone Lyster** (*Turdus olivaceus*) skugter met sy donker olyfkleurige bors weer te voorskyn kom om verder te skrop en te grawe op soek na insekte onder die bome.

In die riete wat by die Watergat aangeplant is, sal die besoeker lede van die **Vink**-familie (Ploceidae) sien terwyl hulle naarstiglik werskaf. As die **Witstinkhout-** en **Blinkblaar-wag'n-bietjie**-bome se bessies ryp is, weerklink die lawaai van die **Gevlekte Muisvoël** (*Colius striatus*), die **Rooiwangmuisvoël** (*Colius indicus*), die **Swartoogtiptol** (*Pycnonotus barbatus*) en die **Gewone Glansspreeu** (*Lamprotornis nitens*) onder meer. Die **Gewone Tortelduif** (*Streptopelia capicola*) en die **Gewone Mossie** (*Passer melanurus*) wag geduldig op die takke van die **Witstinkhoutboom** op die koms van die Veldtuinbouer wat die kos bring terwyl die **Janfiskaal** (*Lanius collaris*) afwagtend vanuit sy uitkykpos neerkyk.

Die fyn waarnemer sal dikwels ook die volgende voëlspesies om en by die Watergat opmerk, naamlik die **Swartkopreier** (*Ardea melanocephala*), **Veereier** (*Ardeola ibis*), **Kuifkophoutkapper** (*Trachyphonus vaillantii*), **Bruinsy-langsterttinktinkie** (*Prinia subflava*) **Gewone Waterlaksman** (*Laniarius ferrugineus*) **Swartkroonlaksman** (*Tchagra senegala*), **Bokmakierielaksman** (*Malaconotus zeylonus*), en die **Blouvalk** (*Elanus caeruleus*) wat geen vrees by ander voëlsoorte inboesem nie.

Soms is die **Rooivlerkspreu** (*Onychognathus morio*) en **Gewone Glasogie** (*Zosterops pallidus*) ook besoekers by die Watergat,

Visitors who approach the Water Hole undetected are usually fortunate enough to see the *Bostrychia hagedash* (**Hadedda Ibis**), particularly when they suddenly start up, uttering a long drawn-out, mournful *ha-ha, ha-de-dah*. As the visitor nears, the **Black-smith Plover** (*Vanellus armatus*) will probably scurry restlessly away and, with its head bobbing up and down, watch from a safer distance, while other birds belatedly take to their wings.

After a while, the *Upupa africana* (**African Hoopoe**) may be heard uttering its melodious call from a nearby tree, while the *Turdus olivaceus* (**Olive Thrush**) warily emerges from the scrub and continues foraging for insects beneath the trees.

Among the reeds which have been planted near the Water Hole, the visitor is sure to see members of the **Weaver** family or Ploceidae, busily engaged in building nests or searching for food. When the berries of the **White Stinkwood** (*Celtis africana*) and **Buffalo-thorn** (*Ziziphus mucronata*) are ripe, the strident calls of the **Speckled Mousebird** (*Colius striatus*), **Red-faced Mousebird** (*Colius indicus*), the **Black-eyed Bulbul** (*Pycnonotus barbatus*) and the **Cape Starling** (*Lamprotornis nitens*) and other species may be heard. The **Cape Turtle Dove** (*Streptopelia capicola*) and the **Cape Sparrow** (*Passer melanurus*) wait patiently in the **White Stinkwood** tree for the Landscape Gardener to scatter food, while the **Fiscal Shrike** (*Lanius collaris*) perches atop his vantage point and peers expectantly down on the scene below.

The observant visitor will frequently also see the following species in the vicinity of the Water Hole: the **Black-headed Heron** (*Ardea melanocephala*), the **Cattle Egret** (*Ardeola ibis*), the **Crested Barbet** (*Trachyphonus vaillantii*), the **Tawny-flanked Prinia** (*Prinia subflava*), the **Common Bou-bou Shrike** (*Laniarius ferrugineus*), the **Black-crowned Shrike** (*Tchagra senegala*), **Bokmakierie Shrike** (*Malaconotus zeylonus*), and the **Black-shouldered Kite** (*Elanus caeruleus*), for whom the other bird species show not the slightest apprehension.

Sometimes the **Red-winged Starling** (*Onychognathus morio*)

Upupa africana
(Hoephoep — African Hoopoe) (p. 22)



asook die **Gewone Vleiloerie** (*Centropus superciliosus*) wat skugter vanuit die digte plantegroei toekyk om, soos Prozesky dit stel, af en toe sy reeks welluidende, borrelende *doe-doe-doe-doe* in 'n dalende toonoot te laat hoor.

Nadat die **Slanghalsvoël** (*Anhinga rufa*) met sy baie kenmerkende kinkelnek die goudvissies in die Watertuin ten noorde van die Watergat ietwat uitgedun het, neem hy dikwels met oopgespreide vlerke en nat, afhangende stert plaas op een van die bome — 'n ruskansie, moontlik, alvorens hy weer afsit Watertuin toe waar voetgangers hom laas die skrik op die lyf gejaag het.

and the **Pale White-eye** (*Zosterops pallidus*) also visit the Water Hole, while **Burchell's Coucall** (*Centropus superciliosus*) peers timidly from under the dense scrub and, as Prozesky puts it, occasionally emits a series of bubbling, flute-like notes on a descending scale, *doo-doo-doo-doo*.

After the **Darter** (*Anhinga rufa*) with its characteristically curved neck has decimated the goldfish population in the Water Garden north of the Water Hole, it frequently perches atop one of the tall trees nearby with its wet, drooping tail, possibly to pause awhile before returning to the Water Garden from whence it fled when visitors approached.



Ingrid Bredell '81

DIE WATERTUIN

Water het deur die eeue heen nog altyd 'n onweerstaanbare aantrekkingskrag en bekoring vir die mens ingehou. In die vrye natuur roep dit beelde van bergpieke, valleie, strome met rotse omsoom en hemelsbloue mere op. Rotse en water is waarskynlik die basiese elemente van die natuur se mees verstommende en onvergeetlike landskappe. By tuinbeplanning kan die natuur met behulp daarvan kunstig nageboots word.

'n Rots wat kunstig in 'n watertuin geïnkorporeer word, skep die indruk van vastigheid of onveranderlikheid soos deur geologiese kragte van jare gelede gevorm. In teenstelling met rotse is water veranderlik – ja, ook onmisbaar in die voortbestaan van die mens. Bewegende water is strelend en dit wis verwarring as 't ware tydelik uit.

Een van die wonderlike kwaliteite van 'n watertuin is dat dit bykans altyd die aandag trek en as uitstekende fokuspunt in die tuin dien – iets wat dikwels by landskap- en tuinbeplanning uit die oog verloor word.

Die glansende blinkheid van die water, die spieëlglatte oppervlak daarvan en die skoonheid van die waterlelies met hulle lang blaarstele, groot ronde of ovaal gaafrandige of gekartelde blaarskywe wat drywend beweeg, is altyd 'n lus vir die oog en werk ontspannend in op die gemoed.

By die Watertuin van Unisa kan daar vir 'n wyle stilgestaan word. Die atmosfeer om en by hierdie tuin herinner jou daaraan dat daar noodgedwonge meermale verposing moet kom. Luister

THE WATER GARDEN

Through the years, water has always held an irresistible attraction and charm for man. Water in its natural surroundings conjures up images of mountain peaks, valleys, streams lined with rocky banks and sea-blue lakes. Rocks and water are probably the basic elements of nature's most amazing and unforgettable landscapes. In garden-planning, it may be skilfully employed to emulate nature.

A rock may be skilfully incorporated into a water garden to create an impression of stability and permanence – as if it had been placed there by geological forces, many aeons ago. In contrast, water is forever changing – and also equally indispensable to human existence. Running water creates a peaceful, tranquil atmosphere and transitorily succeeds in alleviating confusion.

One of the most wonderful qualities of a water garden is that it almost invariably catches the eye and serves as an excellent focal point in a garden – a fact which is not always fully appreciated in landscape and garden planning.

The lustrous sheen of water, the mirrored surface and exquisite beauty of waterlilies, with the long petioles and large, round or oval, crenate or entire leafblades floating gently on the water, are a never-ending joy to behold and manage to sooth our jaded nerves.

Pause awhile in Unisa's Water Garden. The atmosphere in this delightful spot brings to mind the much-neglected fact that it is essential to relax every now and then. Listen to the birds singing in the trees, oblivious of the restlessness and turmoil of the surround-

Die Watertuin met sy klaterende waterval en rustige waterpoele, vertoon benevens waterlelies ook die groenigheid van 'n wye verskeidenheid flora (p. 27)

Besides water lilies, the Water Garden with its splashing waterfall displays also the greenery of a wide variety of flora (p. 27)



dan na die voëlsang om jou heen te midde van 'n wêreld van beweging en woeling. Bewonder die wolkweerkaatsings, die neerklatende watervalletjies en bekijk die werweling van vissies wat telkens op die wateroppervlak verskyn. Dit alles verleen beweging en verskaf musiek in die Watertuin. Bewegende water is na die skrywer se mening esteties aangenaam, strelend vir die oog en musiek vir die oor. Die sprinkelende sonskyn, die dansende reëndruppels gedurende die somermaande en die versombering wanneer swaar onweerswolke nader, word alles op water weerspieël.

Die Watertuin bied verder aan die landskapbeplanner of tuinier 'n wonderlike geleentheid om interessante plante by die beplanning daarvan te inkorporeer. Die aanwesigheid van water en rotse in die tuin open as 't ware 'n nuwe wêreld van plante wat in en om die Watertuin aangewend kan word.

Naas die bekoorlike drywende waterleliesoorte, behorende tot die geslag *Nymphaea*, is talle interessante jaarplante, meerjarige plante, bome en struik aangeplant – te veel om hier in besonderhede te bespreek.

Die **Afrikaanse Wildepiesang** (*Ensete ventricosum*) met groot heldergroen, gladde leeragtige blare wat 'n opsigtelike helderrooi hoofaar vertoon, versier die waterkant van die grootste poel. Die **Gewone Boomvaring** (*Alsophila dregei*) met sy haarbedekte stam en palmagtige voorkoms floreer in die vogtigheid terwyl die *Primula*-soorte (**Blouselblommetjie**) pragtige kleurkolle in die skaduwee van die groot rotse vorm.

Vertoef gerus ook in die lente by die Watertuin en bewonder die mooi, ligroos blomme van die **Basboom** (*Dais cotinifolia*) wat met 'n hofievormige bloeiwyse in oorvloed aan die takke gelangskik is.

In die **Kleinkoraalboom** (*Erythrina humeana*) kondig die **Gewone Glasogie** (*Zosterops pallidus*) gewoonlik al kwetterend sy teenwoordigheid aan terwyl daar lustig op insekte tussen die donkerrooi, langgesteelde blomme jag gemaak word. Selfs nie die tiptiese geklap van die vlerke van die **Kransduif** (*Columba guinea*)

ing city. Marvel at the delicate reflections of the clouds or the cascading waterfalls and gaze in wonder at the concentric ripples made by tiny fish bobbing to the surface – all contributing to the enchanting movement and music of the Water Garden. To my mind, moving water is aesthetically pleasing, a joy to behold and music to the ears. The sparkling sunshine, the dancing raindrops of the summer months and the sombre clouds heralding the approach of a thunder storm – all are reflected on the water's surface.

The Water Garden also affords the gardener or landscape architect a wonderful opportunity for incorporating a variety of interesting plants when planning a garden. The presence of water and rocks in a garden opens up new vistas, as it were, of plants which may be cultivated in and around the Water Garden.

Besides various species of attractive, floating waterlilies of the genus *Nymphaea*, numerous interesting annuals, perennials, trees and shrubs thrive in the Water Garden – far too many to discuss in detail.

The **African Wild Banana** (*Ensete ventricosum*) with its large, smooth, brilliant green, leathery leaves and conspicuous, bright red midribs, adorns the edge of the large pool. The **Common Tree Fern** (*Alsophila dregei*) with its palmlike appearance and sturdy stem covered in hairlike structures, flourishes in the moist soil, while various *Primula* species add fine splashes of colour in the shade of the large rocks.

Pause awhile, also in the spring, amidst the tranquility of this exquisite Water Garden and admire the enchanting pale pink flowers of the **Pompon Tree** (*Dais cotinifolia*) bearing a profusion of capituliform inflorescences on its branches.

Among the branches of the **Dwarf Coral Tree** (*Erythrina humeana*) the **Pale White-eye** (*Zosterops pallidus*) usually utters its warbling cry as it darts about between the dark red, long-stemmed flowers in search of insects. Not even the typical *clap-clap* of wings as the **Rock Pigeon** (*Columba guinea*) soars across the



Bostrychia hagedash
(Hadida-ibis — Hadedda Ibis) (p. 22)



Anhinga rufa
(Slanghalsvoël — Darter) (p. 34)

wanneer daar van die lys van een gebou na die ander via die Watertuin gesweef word, skrik hierdie klein en lawaaierige voëltjies af nie.

Die groot geelwordende blare en opsigtelike wynrooi bessies aan die punte van die knoetsige stamme van die **Basterkobas** (*Cyphostemma juttae*) kondig aan dat die herfs naderkruip.

As die suidewinde later oor die Watertuin begin waai, is daar tal- le ander beskutte hoekies in die tuine op die hoofkampus. Ontspan dan maar op die houtstomp in die Broodboomtuin te midde van die talle **Broodbooms** spesies en ander mooi inheemse plante terwyl die **Kransswawel** (*Hirundo rupestris*) bokant jou teen 'n blou wolklose hemel sy swaaie en draaie uitvoer.

Water Garden from one ledge to another, high against the surrounding buildings, will intimidate these noisy, restless little birds.

The large, yellowing leaves and conspicuous, burgundy-coloured berries on the terminal branches of the gnarled stem of the **Bastard Cobas** (*Cyphostemma juttae*) herald the coming of autumn.

Later, when the south wind sweeps across the Water Garden, the main campus still has numerous areas protected from the biting winter wind. Relax on a huge log in the Cycad Garden and admire the large variety of **Cycad** species and other beautiful indigenous plants, while the **Rock Martin** (*Hirundo rupestris*) unfurls its wings and soars high above in a clear, cloudless sky.

Columba guinea
(Kransduif — Rock Pigeon) (p. 28)



Ingrid Bredell '81

DIE BROODBOOMTUIN

Die Landskap- en Tuinboukomitee van die Universiteit het gedurende die veldtog Groen Erfenis van 1973 besluit om uit die rykskat van die Republiek van Suid-Afrika se flora — ryk aan skoonheid en verskeidenheid — 'n aantal plante in 'n besondere inheemse tuin te versamel.

Met die Universiteit se eeufeesviering het die gedagte van bewaring vir die nageslag al hoe meer op die voorgrond getree. Aangesien min ander vorms van plantlewe so stadig is ten opsigte van groeikrag, rypwording en distribusie en derhalwe so kosbaar en bewarenswaardig soos die *Encephalartos*-soorte is, is op die sogenaamde Broodboomtuin besluit. Die meeste soorte **Broodbome** wat in die Republiek van Suid-Afrika aangetref word, kan in die besondere tuinhoekie besigtig word. Tans is 28 beskrewe spesies in die Republiek van Suid-Afrika bekend.

Broodbome kom hoofsaaklik langs die ooskus vanaf Port Elizabeth in die suide tot by die Wolkberge en Soutpansberge in die noorde voor. Hierdie plantsoorte is van onskatbare botaniese-wetenskaplike waarde. Hulle mag alleen in persoonlike versamelings aanwesig wees as 'n permit daarvoor uitgereik is.

In hierdie verband wil die skrywer weer eens sy waardering betuig vir die hulp en bystand van die lede van die Departement Algemene Plantkunde van die Universiteit van Pretoria met 'n keurige publikasie oor die Broodboomtuin van Unisa in 1975.

Groot, skurwe, massiewe rotse is aangebring waarteen die groeperings broodboomsoorte mooi vertoon. 'n Waterstroompie

THE CYCAD GARDEN

During the Green Heritage Campaign in 1973, the University's Landscape and Garden Planning Committee decided that a number of species from the Republic's rich heritage of flora — both in variety and beauty — should be established in a unique garden of indigenous plants.

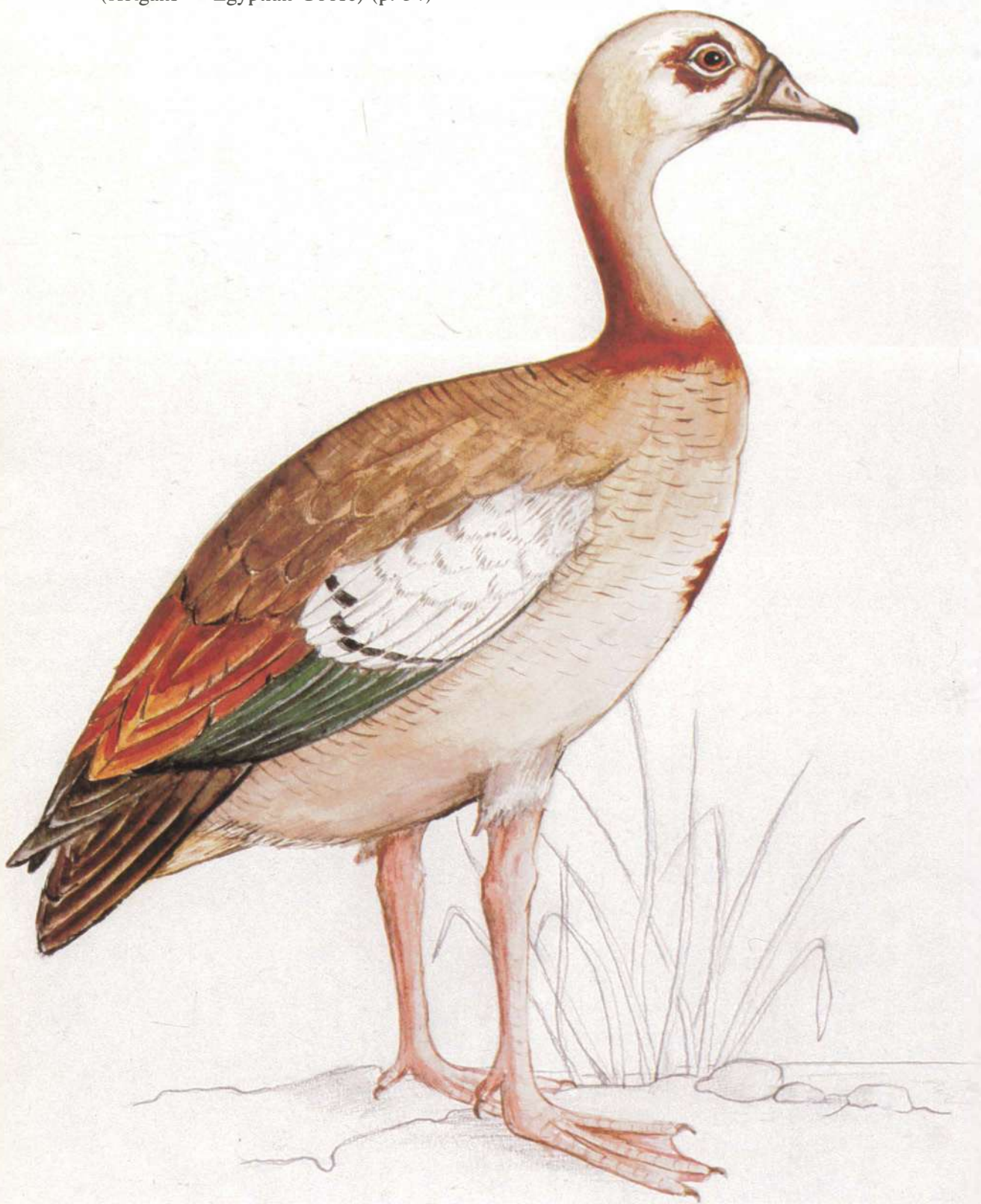
With the centenary celebrations of the University of South Africa, the desire for preservation of this flora for future generations came increasingly to the fore. As few other forms of plantlife are so slow with regard to growth, maturation and distribution, and thus so valuable and worth preserving as the *Encephalartos* species, it was decided to establish a so-called Cycad Garden. Most **Cycads** occurring in the Republic of South Africa may be found in this unique garden on Unisa's campus. So far 28 described species have been found in the Republic.

Cycads are found mainly along the east coast, from Port Elizabeth in the south to the Wolkberg and Soutpansberg in the north. These species are of inestimable botanical and scientific value and permits must be obtained for private collections.

In this respect the author again wishes to express his appreciation for the assistance and support received from members of the Department of General Botany at the University of Pretoria with a prestige publication on the Cycad Garden of Unisa in 1975.

Large, rough, massive rocks were positioned to show off the various Cycad species to best advantage, while a tiny waterfall

Alopochen aegyptiacus
(Kolgans — Egyptian Goose) (p. 34)



wat oor 'n paar van hierdie rotse stort, verleen rustigheid en koelheid aan die tuin.

In die waterpoel baljaar goudvissies tussen die mooi blare en blomme van **Waterlelies** (*Nymphaea*). Hierdie waterleliesoorte vertoon pragtig teen die agtergrond van die water terwyl **Kniphofia** (**Vuurpyl**), **Schizostylis** (**Kafferlelie**), **Veltheimia** (**Sandlelie**), **Haemanthus** = **Scadoxys** (**Poeierkwas**) en ander plante wat naby water of nattigheid floreer, die rand van die dammetjie verder verfraai.

Rustig kan die besoeker hom op die inheemse grassoort **Bufelskweek** (*Stenotaphrum secundatum*) neervly om na die sagte geruis van die waterstroompie te luister of hom te verlustig in die skoonheid van die groot, groen blare van die **Afrikaanse Wildepiesang** (*Ensete ventricosum*) die treffende voorkoms van die volgende boom- en struiksoorte: **Kannabas** (*Dais cotinifolia*), **Keurboom** (*Virgilia oroboides*), **Wildedagga** (*Leonotis leonurus*), **Geelhoutsoorte** (*Podocarpus*-soorte), **Koraalboomsoorte** (*Erythrina*-soorte), **Hoëveldse Kiepersol** (*Cussonia paniculata*), en **Essenhout** (*Ekebergia capensis*).

Die goeie waarnemer sal die stertwippende **Gewone Kwikstert** (*Motacilla capensis*) op die grasperk opmerk op soek na kos vir sy kleintjies wat in die pragtige **Gewone Boomvaring** (*Alsophila dregei* of *Cyathea dregei*) langs die waterstroompie in 'n nessie versteek is. Vroeg in die môre sal die **Kolgans** (*Alopochen aegyptiacus*) ook daar gesien kan word asook die **Slanghalsvoël** (*Anhinga rufa*) wat soms onverwags neerplons om die vissies in die dam uit te dun, terwyl die **Kransswawels** (*Hirundo rupestris*) as getuies van die vangs heen en weer vlieg en hul tipiese tjiep-tjiep-tjiep-tjurr-liedjie weerklink.

Met hierdie tuin, waarin al die plante geëtiketteer is, wil ons die natuurliefhebber in staat stel om die genot wat hy uit die broodboomtuin sal put, te verdiep en homself te verryk met kennis van die plante.

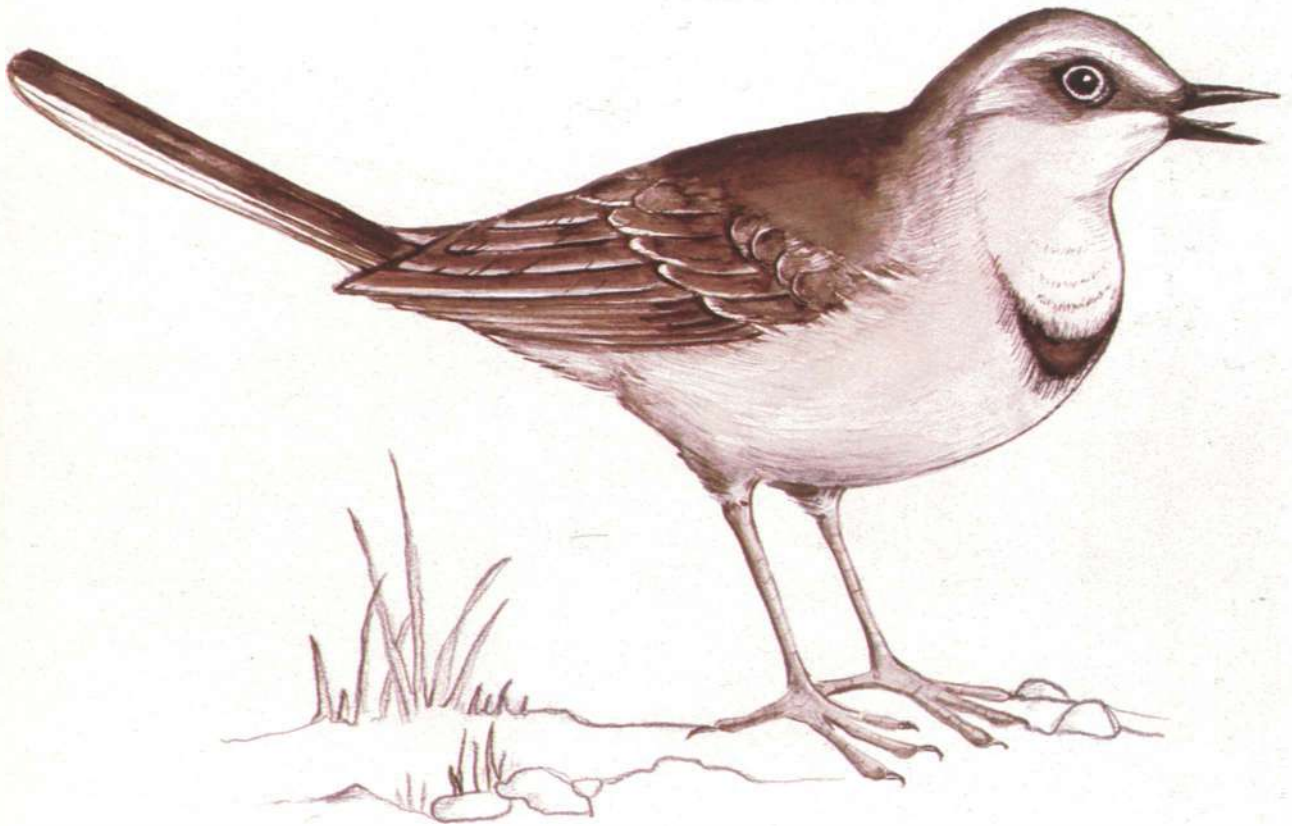
cascading over some of these huge rocks imparts a cool, peaceful atmosphere to the garden.

Goldfish dart about between the lovely, floating leaves and flowers of **Water Lilies** (*Nymphaea*). These water lilies are beautifully exhibited against the background of the water, while **Kniphofia** (**Red-hot Poker**), **Schizostylis** (**Kaffir Lily**), **Veltheimia** (**Quarobe**) **Haemanthus** = **Scadoxys** (**Paint Brush**) and other species which thrive near water or in moist conditions have been attractively arranged around the edge of the pool.

Visitors may enjoy relaxing on the lawn of indigenous grass, known as *Stenotaphrum secundatum* (**St Augustine**) and to listen to the murmuring stream and marvel at the unsurpassed beauty of the great, green leaves of the **African Wild Banana** (*Ensete ventricosum*) and the following magnificent trees and shrubs around the pool: **Pompon Tree** (*Dais cotinifolia*), **Blossom Tree** (*Virgilia oroboides*), **Minaret Flower** (*Leonotis leonurus*), various **Yellowwoods** (*Podocarpus* species) and **Coral Tree** (*Erythrina*) species, **Common Cabbage Tree** (*Cussonia paniculata*) and **Cape Ash** (*Ekebergia capensis*).

The observant visitor will notice the **Cape Wagtail** (*Motacilla capensis*) bobbing its tail as it walks across the lawn in search of food for its young, hidden in the nest in the beautiful **Common Tree Fern** (*Alsophila dregei* or *Cyathea dregei*) beside the glistening stream. In the early morning the **Egyptian Goose** (*Alopochen aegyptiacus*) may also be seen in this vicinity, and the **Darter** (*Anhinga rufa*) sometimes plops down unexpectedly to devour the goldfish while the **Rock Martins** (*Hirundo rupestris*) fly to and fro uttering their typically high-pitched *cheep-cheep-cheep-churr* as they witness the decimation.

All the plants in this garden are labelled and it is hoped that this will add to the nature lover's enjoyment of the Cycad Garden and at the same time, broaden and increase his knowledge of these species.



Bekendstelling van bome, struike en voëls

Vooraf is dit reeds genoem dat 'n opname van al die inheemse bome, struike en voëls van die hoofkampus op Muckleneukrant gemaak is. Die bekendstelling daarvan behels 'n beknopte beskrywing van die familie, genus en die spesie met vermelding van die plek waar dit op die kampus groei. Die volgorde van bespreking hou stiptelik by die sisteem soos vooraf vermeld is en verteenwoordig die families wat op die hoofkampus voorkom.

CYATHEACEAE

Boomvaring-familie

Die meeste boomvaringsoorte van die wêreld behoort tot hierdie familie. Die drie geslagte in hierdie plantfamilie is die volgende: *Alsophila* – 300 soorte, *Hemitelia* (**Boomvaring**) – 100 soorte, en *Cyathea* met ongeveer 300 soorte.

In die Broodboomtuin staan 'n paar mooi eksemplare van een Suid-Afrikaanse boomvaringsoort, naamlik *Alsophila dregei* (= *Cyathea dregei*), bekend as die **Gewone Boomvaring**. Die Griekse woord *kyatheion* beteken letterlik 'n klein koppie'. Die tweede gedeelte van die naam vereer C.F. Drège wat tussen die jare 1826 en 1834 in Suid-Afrika gereis het.

Introduction to the trees, shrubs and birds

As previously stated, a survey has been conducted of all the indigenous trees, shrubs and birds found on the main campus on Muckleneuk Ridge. This introduction provides a brief description of each family, genus and species, with notes on where the specific species may be found on the campus. The sequence in which the families represented on the main campus are discussed, adheres strictly to the system previously referred to.

CYATHEACEAE

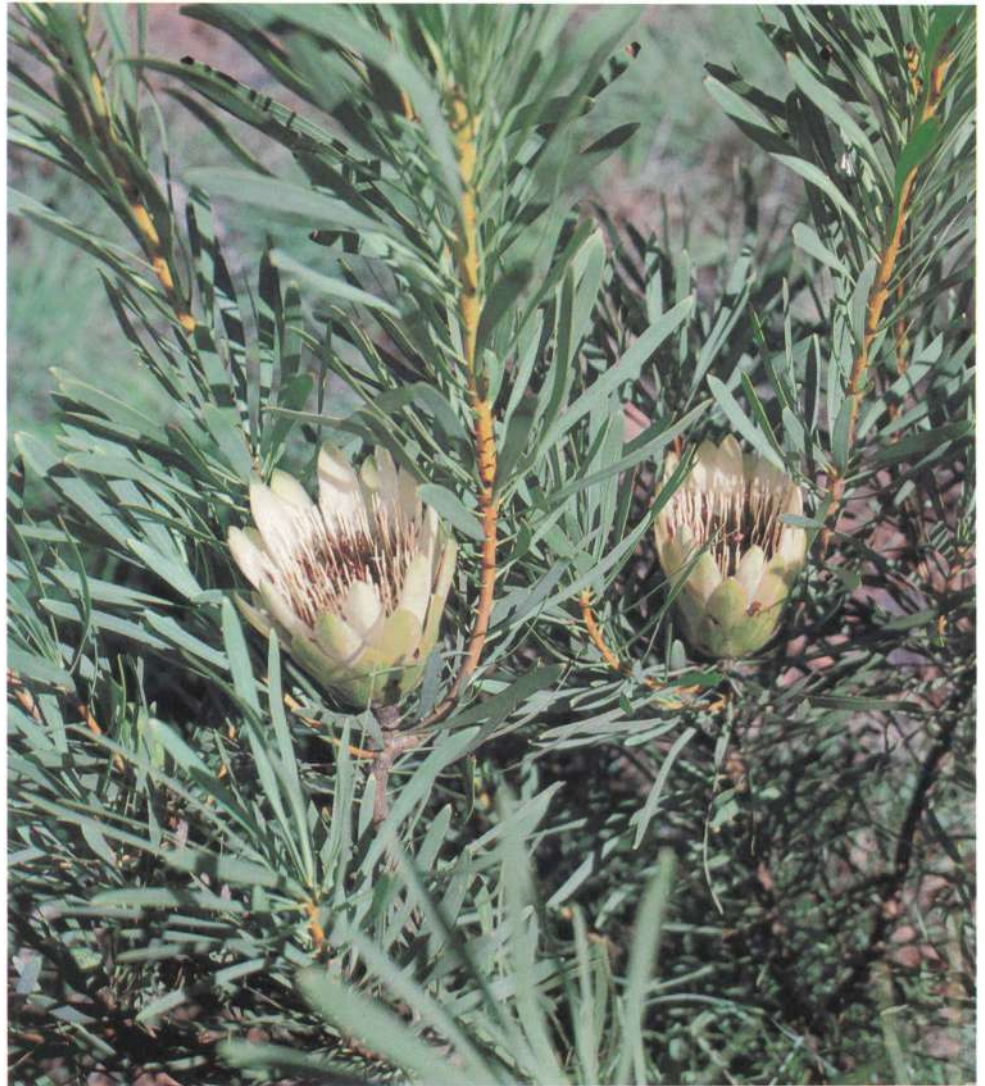
Tree Fern Family

Most of the world's tree ferns belong to this family, which comprises the following three genera: *Alsophila* – 300 species; *Hemitelia* (**Slender Tree Fern**) – 100 species; and *Cyathea* – some 300 species.

In the Cycad Garden the nature lover will find beautiful specimens of one South African species, the *Alsophila dregei* (= *Cyathea dregei*), known as the **Common Tree Fern**. The Greek word *cyatheion* means 'a small cup', while the specific epithet honours the collector C.F. Drège, who travelled extensively in South Africa between 1826 and 1834.



Alsophila dregei
(Gewone Boomvaring — Common Tree Fern) (p. 36)



Protea repens
(Opregte Suikerbos — Real Sugarbush) (p. 54)

Hierdie mooi boomvaringsoort met sy palmagtige voorkoms en kroon van groot dubbelveervormigsaamgestelde blare kom van Knysna in die suide, en kom in die oostelike gedeeltes van die Kaapprovinsie, Natal, Oos-Transvaal en Sentraal-Transvaal voor.

Die stamme van hierdie spesie wissel van 1,5 tot 3,5 m. Die blare se boonste oppervlak is donkergroen terwyl dit onder liggroen is. Die stam wat tot 50 cm dik word, word omgewe deur ou blaarbasisse en 'n digte mat van swart, kort, veselagtige wortels. Hierdie soort hou van baie vogtigheid en 'n waterryke omgewing.

In *Die Nasionale Boomlys* (1978) is *Alsophila dregei* (**Gewone Boomvaring**) nr. 1 terwyl *Alsophila capensis* = *Hemetelia capensis* (**Bosboomvaring**) nr. 2 is.

Die **Gewone Kwikstert** (*Motacilla capensis*) en die **Gewone Janfrederik** (*Cossypha caffra*) broei gereeld in die kroon van hierdie boomvaringsoort. Laasgenoemde het nou al vir drie jaar agtereenvolgens in dieselfde nessie gebroei.

ZAMIACEAE

Sikadee-familie

Die *Encephalartos*-soorte staan in die volksmond as **Broodbome** bekend terwyl party plantkundiges dikwels van **Sikadeë** praat. Die geslagsnaam is saamgestel uit die Griekse woorde *en*, *cephale* en *artos*, wat respektiewelik beteken 'in', 'hoof' of 'kop', en 'brood'. Die familie behoort tot die naaksadiges. Hierdie plante geslag is afstammelinge van plante wat as fossiele voorkom in afsettingsgesteentes wat na raming ongeveer 150 miljoen jaar gelede neergelê is.

In hierdie familie kom agt genera, of geslagte, voor: *Lepidozamia*, *Macrozamia*, *Dioon*, *Microcycas*, *Ceratozamia*, *Bowenia*, *Zamia* en *Encephalartos*.

This exquisite tree-fern with its palmlike appearance and crown of large, binnately compound leaves, is found from Knysna in the south, throughout the Eastern Cape and Natal, to the Eastern and Central Transvaal.

The trunk varies in height from 1,5 to 3,6 m. The leaves are dark green on the upper surface and a lighter shade of green underneath. The trunk which can reach a circumference of up to 50 cm, is covered with old leaf bases and a thick mat of short, black fibrous roots. This species thrives under very humid, moist conditions.

In the *National List of Trees* (1978), *Alsophila dregei* (**Common Tree Fern**) appears first on the list, while *Alsophila capensis* = *Hemetelia capensis* (**Forest Tree Fern**) is second. The **Cape Wagtail** (*Motacilla capensis*) and also the **Cape Robin** (*Cossypha caffra*) regularly breed in the crown of these tree ferns. During the past three consecutive years, a **Cape Robin** has returned to the same specific nest.

ZAMIACEAE

Cycad Family

The *Encephalartos* species are commonly known as **Cycads**. The generic nomenclature is derived from the Greek words *en*, *cephale* and *artos*, denoting 'in', 'head' and 'bread'. This family belongs to the gymnospermae. The genus is descendant from plants occurring as fossils in sedimentary rock deposits, believed to be some 150 million years old.

This family is represented by eight genera, namely *Lepidozamia*, *Macrozamia*, *Dioon*, *Microcycas*, *Ceratozamia*, *Bowenia*, *Zamia* and *Encephalartos*.



Die *Encephalartos*-geslag word deur ongeveer 40 soorte verteenwoordig wat in tropiese Afrika en Suid-Afrika voorkom. In die Republiek van Suid-Afrika word 28 beskrewe soorte aangetref. Hulle kom hoofsaaklik langs die ooskus vanaf Port Elizabeth in die suide voor tot by die Wolkberge en Soutpansberge in die noorde.

Manlike en vroulike plante word aangetref. Die stingels is onvertak, vertak, bogronds of ondergronds en is met skubbe en die basisse van afgestorwe blare bedek. Die blare word in rosette gedra en is veervormig saamgestel. Die saad word deur 'n opvallende oranje en rooi vlesige gedeelte omgewe wat by enkele soorte eetbaar is, maar by ander soorte giftig is. Die endosperm, of kiemwit, is by die meeste spesies giftig.

Hierdie plantesoorte is blykbaar ekologies goed aangepas en dit word beweer dat hulle tot 'n duisend jaar oud en selfs ouer kan word. Dit is 'n beskermde geslag wat baie, baie stadig groei. Geen persoon mag enige eksemplaar sonder 'n permit in sy besit hê nie.

Die meeste soorte kan by die hoofkampus gesien word waar dit op verskillende plekke aangeplant is.

Mooi voorbeelde van die volgende soorte kan in die onmiddellike omgewing van die droë sloot by die Prellerstraatingang besigtig word: *E. arenarius*, *E. lanatus*, *E. lebomboensis* en *E. transvenosus*. Naby die hoofingang van die Theo van Wijkgebou is die volgende soorte aangeplant: *E. eugene-maraisii*, *E. ferox* en *E. villosus*. Waar die Wandelpad begin (naby die laboratoria) groei die volgende spesies: *E. eugene-maraisii*, *E. lanatus* en *E. umbeluziensis*, terwyl *E. lebomboensis*, *E. lanatus* en *E. villosus* by die Watertuin tussen die Theo van Wijkgebou en die nuwe Administrasiegebou gevestig is.

By die houtbruggie in Bourketuin staan *E. transvenosus* wat in 1926 deur wyle mnr. Miles Bourke aangeplant is. 'n Historiese foto bevestig dit. Dit is 'n manlike plant wat later suiglate gemaak het, en vandaar die ander eksemplare van hierdie spesie wat in die tuin aangetref word. Ander soorte is later in die tuin deur die Landskap- en Tuinboukomitee aangeplant, naamlik *E. alten-*

The genus *Encephalartos* is represented by some 40 species occurring in tropical and South Africa. The 28 described species indigenous to the Republic of South Africa are found mainly along the east coast, from Port Elizabeth in the south to the Wolkberg and Soutpansberg in the north.

Plants may be male or female. The stems are simple or branched, below or above ground and covered with scales and leaf scars. The leaves are pinnately compound and arranged in the form of a rosette. The seed is enclosed in a conspicuous orange and red fleshy covering, which is edible in some species, but poisonous in others. In the majority of species, the endosperm is poisonous.

These species have obviously adapted admirably to ecological circumstances and it is claimed that they can become a thousand years old, and more. The genus is protected and extremely slow growing. Possession of any specimen without a valid permit is prohibited.

Most of the species are represented on the main campus, where they have been planted in various areas.

Beautiful examples of the following species may be found in the immediate vicinity of the dry ditch near the Preller Street entrance: *E. arenarius*, *E. lanatus*, *E. lebomboensis*, and *E. transvenosus*. Near the main entrance to the Theo van Wijk Building, the following species will be found: *E. eugene-maraisii*, *E. ferox* and *E. villosus*. At the beginning of the Nature Trail near the laboratory, the following species have been established: *E. eugene-maraisii*, *E. lanatus* and *E. umbeluziensis*, while *E. lebomboensis*, *E. lanatus* and *E. villosus* may be found in the Water Garden situated between the Theo van Wijk Building and the new Administration Building.

Near the rustic bridge in the Bourke Garden, Mr Miles Bourke successfully planted a specimen of *E. transvenosus* in 1926, as confirmed by a historic photograph. In due course this male plant produced water-shoots, from which the other specimens of this

Besluit tussen die geboue op die hoofkampus is die Broodboomtuin geleë waarin die meeste Suid-Afrikaanse broodboomspeesies voorkom (p. 32)

The Cycad Garden which lies sheltered amongst the buildings on the main campus, contains most of the South African cycad species (p. 32)



steinii, *E. arenarius*, *E. eugene-maraisii*, *E. ferox*, *E. friderici-guilielmi*, *E. lanatus*, *E. lebomboensis*, *E. natalensis*, *E. transvenosus*, *E. umbeluziensis* en *E. villosus*.

Die grootste eksemplare van die spesies in Bourketuin is *E. arenarius*, *E. ferox* en *E. villosus*. Hierdie drie plante is almal vroulike plante wat gereeld mooi groot keëls dra.

Behalwe vir enkele spesies, naamlik *E. cupidus*, *E. heenanii* en *E. woodii* kan al die ander in die Broodboomtuin besigtig word, te wete *E. altensteinii*, *E. arenarius*, *E. caffer*, *E. cycadifolius*, *E. eugene-maraisii*, *E. ferox*, *E. friderici-guilielmi*, *E. ghellinckii*, *E. horridus*, *E. humilis*, *E. inopinus*, *E. laevifolius*, *E. lanatus*, *E. latifrons*, *E. lebomboensis*, *E. lehmannii*, *E. longifolius*, *E. natalensis*, *E. ngoyanus*, *E. paucidentatus*, *E. princeps*, *E. transvenosus*, *E. trispinosus*, *E. umbeluziensis* en *E. villosus*.

PODOCARPACEAE

Geelhout-familie

Tot hierdie familie behoort sewe genera waarvan die *Podocarpus*-geslag onder meer in die Republiek van Suid-Afrika aangetref word. *Podocarpus* sluit van die grootste woudbome van die Republiek van Suid-Afrika in. Die naam *Podocarpus*, afgelei van die Griekse woorde *podos* (voet) en *karpos* (vrug), het betrekking op die gesteelde saad wat in sommige spesies op 'n vlesige en selfs helderkleurige podokarpium, of voet, gedra word. Dit word wydverspreid in die kus- en binnelandse woude van die Kaapse Skiereiland tot in Noord-Transvaal aangetref. Hierdie familie behoort tot die naaksadiges.

Geelhout is in die vorige eeu algemeen vir meubels, vloerplanke, daksparre, naafbande vir waens en selfs vir skeepsmaste gebruik.

species found in the gardens, were propagated. The Landscape and Garden Planning Committee has subsequently added the following species to Unisa's collection: *E. altensteinii*, *E. arenarius*, *E. eugene-maraisii*, *E. ferox*, *E. friderici-guilielmi*, *E. lanatus*, *E. lebomboensis*, *E. natalensis*, *E. transvenosus*, *E. umbeluziensis*, and *E. villosus*.

E. arenarius, *E. ferox* and *E. villosus* are the largest specimens of these species found in the Bourke Garden. All three specimens are female plants and bear attractive, large cones.

With the exception of the three species *E. cupidus*, *E. heenanii* and *E. woodii*, all other *Encephalartos* species may be found in the Cycad Garden. The complete list is the following: *E. altensteinii*, *E. arenarius*, *E. caffer*, *E. cycadifolius*, *E. eugene-maraisii*, *E. ferox*, *E. friderici-guilielmi*, *E. ghellinckii*, *E. horridus*, *E. humilis*, *E. inopinus*, *E. laevifolius*, *E. lanatus*, *E. latifrons*, *E. lebomboensis*, *E. lehmannii*, *E. longifolius*, *E. natalensis*, *E. ngoyanus*, *E. paucidentatus*, *E. princeps*, *E. transvenosus*, *E. trispinosus*, *E. umbeluziensis*, and *E. villosus*.

PODOCARPACEAE

Yellowwood Family

This family is represented by seven genera, of which the genus *Podocarpus* also occur in the Republic of South Africa.

Some of the largest forest trees in the Republic of South Africa belong to the genus *Podocarpus*. This generic name is derived from the Greek words *podos* (= foot) and *carpos* (= fruit) and refers to the stemmed fruit which is borne on a podocarp or base which, in some species, is fleshy and may even be brightly coloured. It is widely distributed in the coastal and inland forests

Trachyphonus vaillantii
(Kuifkophoutkapper – Crested Barbet) (p. 22)



Ingrid Bredell '81

In die Broodboomtuin van Unisa staan die volgende spesies: *P. falcatus* (**Outeniekkwageelhout**), *P. henkelii* (**Henkel-se-Geelhout**), en *P. latifolius* (**Opregte Geelhout**). Aan die noordekant van die Theo van Wijkgebou staan ook mooi eksemplare van voorafgenoemde spesies. Die drie soorte kan onder meer volgens hulle blare van mekaar onderskei word. Die blare van *E. henkelii* is die langste en dié van *P. falcatus* die kortste van die drie soorte. Dié van *P. henkelii* is afhangend, terwyl dié van die ander soorte regopstaande is. Die blaarpunte van aldrie spesies loop geleidelik in 'n skerp punt uit.

In die onmiddellike omgewing van Unisa se “geelhoutboomlaan” groei onder andere *Tecomaria*- en *Bauhinia*-soorte. By die blomme van hierdie twee struiksoorte tref 'n mens die immer aktiewe **Swartsuikerbekkie** (*Nectarinia amethystina*) en die **Gewone Glasogie** (*Zosterops pallidus*) aan waar hulle op soek is na nektar en insekte. Wanneer nektar nie beskikbaar is nie, soek die **Suikerbekkie** gewoonlik insekte.

Dikwels word die baie bekende *koer-koer-koe* van die **Gewone Tortelduif** (*Streptopelia capicola*) bo in een van die *Podocarpus*-bome gehoor, terwyl die **Gewone Laksman** of **Janfiskaal** (*Lanius collaris*) die **Geelhoutbome** as uitkykpos gebruik. Die digte bome bied ook skuiling vir die **Gewone Janfrederik** (*Cossypha caffra*) wat volkome by die bewoners van die geboue aangepas is. Die **Kuifkophoutkapper** (*Trachyphonus vaillantii*) sit gewoonlik oop en bloot op die toppe van dié bome. Prozesky (1974) praat van die harde trillende geroep van hierdie voëlsoort, wat klink soos 'n wekker wat lui: *tirrr ... r*'. Hulle roep dikwels vir minute aaneen.

from the Cape Peninsula to the Northern Transvaal. This family belongs to the naked-seeded plants or gymnospermae.

During the previous century, yellowwood was generally used for furniture, flooring boards, rafters, hub-bands for wagon-wheels and even for ships' masts.

The following species are found in Unisa's Cycad Garden: *P. falcatus* (**Outeniqua Yellowwood**), *P. henkelii* (**Henkel's Yellowwood**), and *P. latifolius* (**Real Yellowwood**). Excellent specimens of these species may also be seen on the northern side of the Theo van Wijk Building.

These three species may be distinguished by their leaves and other features. The leaves of *P. henkelii* are the longest and those of *P. falcatus* the shortest of the three species. The leaves of *P. henkelii* droop, while those of the other two species are erect. The leaf ends of all three species taper to a sharp point.

Shrubs in the immediate vicinity of Unisa's 'Yellowwood Avenue' include various *Tecomaria* and *Bauhinia* species. When in bloom, these shrubs attract numerous **Black Sunbirds** (*Nectarinia amethystina*) and **Pale White-eyes** (*Zosterops pallidus*), which flutter about incessantly in search of insects. During seasons when nectar is not available, the **Black Sunbird** (*Nectarinia amethystina*) may usually be seen hunting for insects.

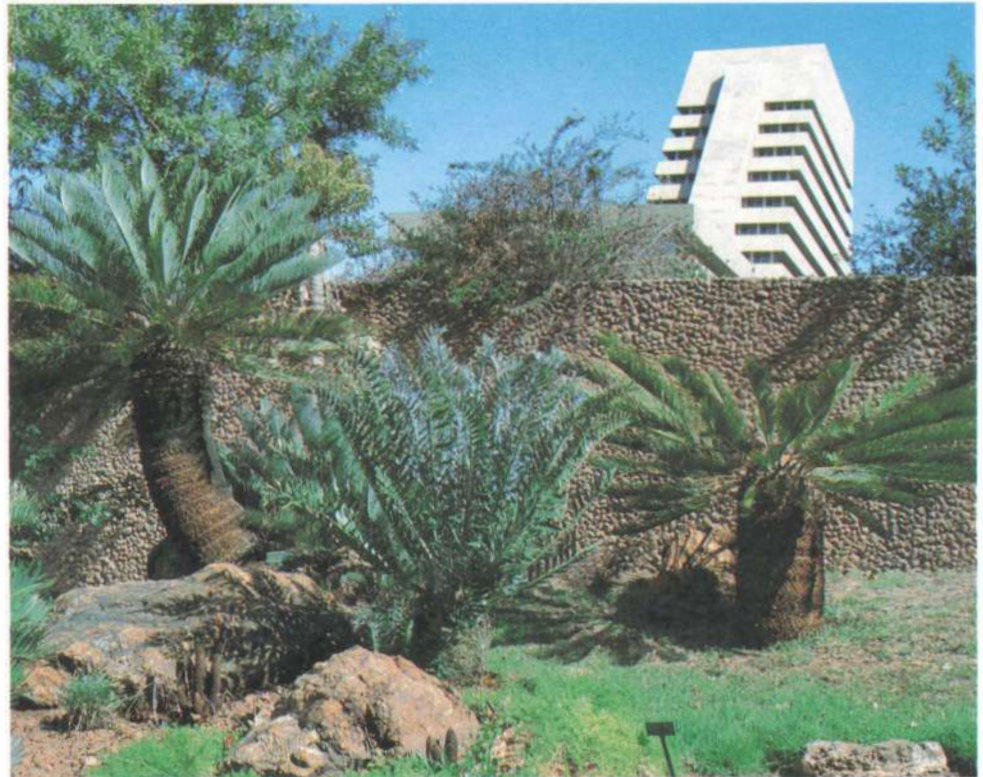
The familiar call *coor-coorr-coo* of the **Cape Turtle Dove** (*Streptopelia capicola*) is frequently heard from atop one of the yellowwood trees, while the **Fiscal Shrike** (*Lanius collaris*) uses these tall trees as a vantage point from which to survey its surroundings. These heavily foliated trees also afford ample protection for the **Cape Robin** (*Cossypha caffra*), which has completely adapted to the proximity of the many people frequenting these buildings. The **Crested Barbet** (*Trachyphonus vaillantii*) may usually be seen perched atop one of the yellowwood trees, in full view of passers-by. Prozesky (1974) refers to its call, which frequently shatters the silence for minutes on end, as a loud, heavy trill, like an alarm-clock going off: *trrrr ... r!*



Podocarpus falcatus
(Outenikwageelhout – Outeniqua Yellowwood) (p. 44)

Links en regs/Left and right: *Encephalartos friderici-guilelmi*
(Withaarbroodboom – White-haired Cycad) (p. 42)

Middel/Centre: *Encephalartos horridus*
(Uitenhage Broodboom – Uitenhage Cycad) (p. 42)



CUPRESSACEAE

Sipres-familie

Hierdie kosmopolitiese familie word deur omtrent 16 genera verteenwoordig waarvan een, naamlik *Widdringtonia* in Suid-Afrika aangetref word. Dit behoort tot die naaksadiges. Die generiese naam vereer Edward Widdrington.

Die meeste soorte in hierdie familie is immergroen bome of struik. Die skurwe stamme skei hars af, terwyl die jong blaartjies 'n naaldagtige voorkoms het wat spiraalgewys of halfspiraalgewys gerangskik is.

In die Broodboomtuin staan 'n kleinerige *Widdringtonia*-boom, naamlik *W. nodiflora* (**Bergsipres**). *Nodiflora* beteken letterlik 'om in die stingelknoop te blom'. Hierdie spesie is ook immergroen, die hout is welriekend en dit bevat hars. Drie soorte van hierdie geslag word in die Republiek van Suid-Afrika aangetref.

LILIACEAE

Lelie-familie

Hierdie groot en ryklik geskakeerde eensaadlobbige familie word deur ongeveer 280 geslagte en 2 800 spesies verteenwoordig. Ongeveer 57 geslagte en 900 spesies word in Suid-Afrika aangetref.

Die *Liliaceae* word van die naverwante families onderskei deur ses meeldrade en 'n bostaande vrugbeginsel in die blom.

Die *Aloe*-soorte behoort ook tot hierdie familie. *Aloe* is 'n Arabiese naam vir hierdie meerjarige sukkulente. Hierdie interessante geslag, wat deur spesies in alle denkbare vorme verteenwoordig word, word in hierdie publikasie geïnkorporeer omdat sekere

CUPRESSACEAE

Cypress Family

This cosmopolitan family of naked-seeded plants, or gymnospermae, comprises some 16 genera of which only one, the *Widdringtonia*, is found in South Africa. The generic name honours Edward Widdrington.

The majority of species in this family are evergreen trees and shrubs, with rough stems or trunks which secrete resin. The young, linear leaves resemble tiny needles and are spirally or subspirally arranged.

In the Cycad Garden there is one tiny *Widdringtonia*, the *W. nodiflora* (**Mountain Cypress**). *Nodiflora* literally means 'to flower in the node'. The wood of this evergreen tree is resinous and has a pleasant odour. Three species of this genus are found in the Republic of South Africa.

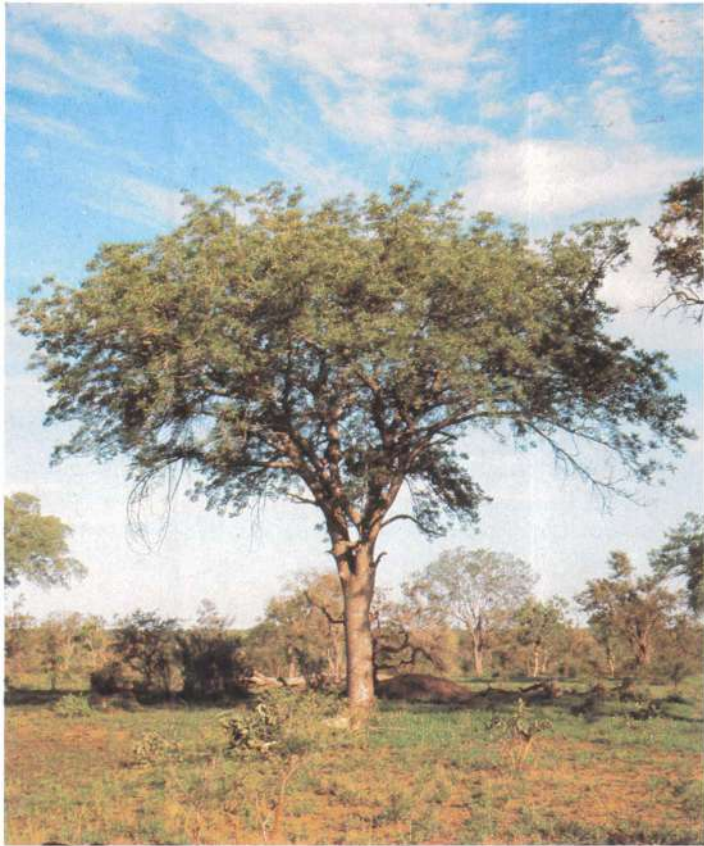
LILIACEAE

Lily Family

This large and varied family of monocotyledonous plants is represented by some 280 genera and 2 800 species, of which approximately 57 genera and 900 species occur in South Africa.

The *Liliaceae* are distinguished from related families by six stamens and a superior ovary in the flower.

The *Aloe* species also belong to this family. *Aloe* is an Arabic name for these perennial succulents. This fascinating genus is represented by species of every conceivable shape and size. It is included in this publication, since certain species have been in-



Sclerocarya caffra
(Maroela — Marula) (p. 82)



Aloe marlothii
(Bergaalwyn — Mountain Aloe) (p. 48)

soorte in *Die Nasionale Boomlys* opgeneem is en omdat hulle so natuurlik langs die Wandelpad met sy ander inheemse plante waarneembaar is. Slegs die boomagtige soorte word hier vermeld, naamlik *Aloe arborescens* (**Kransaalwyn**), *Aloe africana* (**Uitenhaagsaalwyn**), *Aloe aloëides* (**Graskopaalwyn**), *Aloe candelabrum* (**Kandelaaraalwyn**), *Aloe castanea* (**Katstertaalwyn**), *Aloe ferox* (**Bitter- of Tapaalwyn**), *Aloe marlothii* (**Bergaalwyn**), *Aloe rupestris* (**Borselaalwyn**), *Aloe spectabilis* (**Natalaalwyn**), en *Aloe thraskii* (**Strandaalwyn**).

Hierdie winterblommende aalwynspesies lok baie insekte wat in die holte van die blomme inkruip om die nektar te bereik. Dikwels kan **Gewone Glasogies** (*Zosterops pallidus*) en **Suikerbekkie**-soorte, behorende tot die familie Promeropidae, onder meer op die bloeiwyses van aalwynsoorte gesien word vanwaar hulle op die insekte jag maak of nektar soek.

Die **Gevlekte Muisvoël** (*Colius striatus*) en die **Rooiwang-muisvoël** (*Colius indicus*) is gedurende die wintermaande ook al dikwels by die blommende aalwynsoorte opgemerk. Wanneer bessies en vrugte skaars is, het ek opgemerk dat laasgenoemde spesies selfs blomme van aalwynsoorte vreet.

MUSACEAE

Piesang-familie

Piesangs wat oral te koop is, behoort tot die geslag *Musa*, terwyl hulle naaste familieleden in Afrika tans onder die geslag *Ensete* ingedeel word. Hierdie eensaadlobbige familie word deur twee geslagte en ongeveer 45 spesies verteenwoordig.

Ensete ventricosum (**Afrikaanse Wildepiesang**) kom langs waterstrome in die bergklowe van Noord- en Oos-Transvaal voor. Die

clued in the *National List of Trees*, and also because they may be seen in their natural habitat along the Nature Trail. However, only the tree-like species are mentioned in this publication. These comprise the following: *Aloe arborescens* (**Kranz Aloe**), *Aloe africana* (**Uitenhage Aloe**), *Aloe aloëides* (**Graskop Aloe**), *Aloe candelabrum* (**Candelabra Aloe**), *Aloe castanea* (**Cat's-tail Aloe**), *Aloe ferox* (**Bitter Aloe**), *Aloe marlothii* (**Mountain Aloe**), *Aloe rupestris* (**Bottlebrush Aloe**), *Aloe spectabilis* (**Natal Aloe**), and *Aloe thraskii* (**Strand Aloe**).

These winter-flowering species attract myriads of insects, which crawl into the flowers to reach the nectar. The numerous birds which hunt for insects near the aloes, or take nectar from the inflorescences, include the **Pale White-eye** (*Zosterops pallidus*) as well as various species of **Sugarbirds** of the family Promeropidae.

During the winter months, the **Speckled Mousebird** (*Colius striatus*) and the **Red-faced Mousebird** (*Colius indicus*) have also frequently been observed near these aloes. When berries and fruits become scarce, the author has even noticed the latter species eating the flowers of these aloes.

MUSACEAE

Banana Family

The bananas offered for sale in this country belong to the genus *Musa*, while their closest relatives in Africa have now been classified as belonging to the genus *Ensete*. This monocotyledenous family is represented by two genera and some 45 species.

Ensete ventricosum (**African Wild Banana**) is found along streams in the mountain ravines of the Northern and Eastern

Lanius collaris

(Gewone Laksman of Janfiskaal – Fiscal Shrike) (p. 22)



Ingrid Bredell '81

generiese of eerste gedeelte van die naam is aan 'n Ethiopiese volksnaam ontleen, terwyl die spesifieke byvoegsel of tweede gedeelte van die naam betrekking het op die opgeswelde of verdikte basis van die stam. Hierdie Afrika-genus word deur 25 spesies verteenwoordig.

Hoewel hierdie plantsoort kruidagtig is, kan dit tog as 'n boom beskou word. Dit bereik soms hoogtes van 10 tot 12 m. Die groot heldergroen, gladde, leeragtige blare met 'n opvallende, helderrooi hoofaar is baie tiperend van hierdie spesie. Dikwels is die blare tot 4 m lank en 0,9 m breed. Hierdie spesie kan by die Broodboomtuin en die Watertuin gesien word.

Die plantsoort met sy roomkleurige blomme wat in groepe deur rooibruin skutblare beskerm word, is 'n vinnige groeier. Dit is nie rypbestand nie.

ULMACEAE

Olm-familie

Vroeër is van die Celtis-familie gepraat. Ons volg hier die algemene naam soos in *Die Nasionale Boomlys* (1978) aangeteken. *Ulmus* is die Latynse naam vir hierdie boomsoorte.

Hierdie familie, wat deur ongeveer 15 geslagte en bykans 200 min of meer kosmopolitiese soorte verteenwoordig word, behoort tot die tweesaadlobbiges. Hulle kom veral in die noordelike halfrond voor. Die blare is afwisselend, enkelvoudig, dikwels asimmetries met drie are by die basis. Die blommetjies is klein en groenerig van kleur.

In die Republiek van Suid-Afrika word drie geslagte, naamlik *Chaetachme*, *Celtis* en *Trema* aangetref wat ekonomies nie van groot waarde is nie. As skaduboom is *Celtis*-soorte egter baie

Transvaal. The generic name is derived from an Ethiopian common name for this plant, while the specific epithet *ventricosum* refers to the swollen or thickened base of the stem. This Africa genus is represented by 25 species.

Although this is a herbaceous plant, it is nevertheless regarded as a tree and may reach a height of 10 to 12 m. The large, smooth, leathery, bright green leaves with striking, bright red midribs are characteristic of this species. The leaves are frequently up to 4 m long and 0,9 m wide. This species may be found in the Cycad Garden and also in the Water Garden.

The **African Wild Banana** bears clusters of cream-coloured flowers protected by red-brown bracts. It is a fast grower and sensitive to frost.

ULMACEAE

Elm Family

This species was previously known as the Celtis family. In this publication we have chosen to use the general name listed in the *National List of Trees* (1978). *Ulmus* is the Latin name for this species.

This family of dicotyledonous plants is represented by approximately 15 genera and nearly 200 more or less cosmopolitan species, restricted mainly to the northern hemisphere. The leaves are alternate, simple and often asymmetrical, with three veins at the base. The flowers are small and have a greenish colour.

In the Republic of South Africa, this family is represented by the following 3 genera: *Chaetachme*, *Celtis* and *Trema*, all of which are of little economic value. The *Celtis* species, however, are extremely valuable as shade trees. This species, commonly known

waardevol. Dié soorte, wat as **Witstinkhoutbome** bekend staan, is nie aan die **Stinkhout** (*Ocotea bullata*) verwant nie.

Celtis africana (**Witstinkhout**) is baie goed op ons hoofkampus verteenwoordig. *Celtis* is die Griekse naam vir 'nog 'n boom' terwyl *africana* aandui dat dit van Afrika is. Pragtige eksemplare kan veral in Bourketuin besigtig word. Naby die Prellerstraatingang, in die omgewing van die Watergat en teenaan die westelike parkeerterrein van die Theo van Wijkgebou, is talle voorbeelde van hierdie boomsoort.

Vroeg in die lente kom die sagte groen blaartjies uit, gevolg deur die groenerige blommetjies. Hierdie gewilde straat- en tuinboom dra vruggies wat omtrent so groot soos 'n ertjie is. Om die pit is 'n sagte vleisagtigheid wat gretig deur sekere voëlsoorte gevreet word. Moontlik dra voëls by tot die besondere wye verspreiding van hierdie boomsoort.

Die **Gevlekte Muisvoël** (*Colius striatus*) en die **Rooiwangmuisvoël** (*Colius indicus*) is gereelde besoekers by hierdie boomsoort wanneer die gelerige bessies ryp is. Die **Swart-oogtiptol** (*Pycnonotus barbatus*) is ook besonder lief vir die vruggies van *Celtis africana*.

Hierdie bladwisselende bome kan suksesvol in tuine aangeplant word. Dit groei redelik vinnig, is absoluut gehard en sal in koue streke baie goed aard.

MORACEAE

Moerbei-familie

In sommige vroeëre publikasies word die algemene naam Vy-familie dikwels aangetref, terwyl bostaande naam in *Die Nasionale Boomlys* (1978) aangegee word. Die familienaam beteken letterlik 'plante met moerbeigatige blare'.

as **White Stinkwood Trees**, are not related to **Stinkwood** (*Ocotea bullata*).

Celtis africana (**White Stinkwood**) is very well represented on the main campus – *Celtis* is a Greek word denoting 'yet another tree' while the epithet *africana* indicates that the species is indigenous to Africa. There are many beautiful specimens on the campus, particularly in the Bourke Garden. Numerous examples of this species are also found near the Preller Street entrance, in the vicinity of the Water Hole and bordering on the western parking area of the Theo van Wijk Building.

In the early spring, pale, green leaves appear on these trees, followed by small, greenish flowers. This species, which is very popular in gardens and along streets, bears fruit the size of a pea. The seed is surrounded by a soft, fleshy pulp eagerly sought after by certain bird species and in fact, it is believed that birds may be a contributory factor to the particularly wide distribution of these trees.

The **Speckled Mousebird** (*Colius striatus*) and the **Red-faced Mousebird** (*Colius indicus*) regularly visit these trees when the yellowish berries are ripe. The **Black-eyed Bulbul** (*Pycnonotus barbatus*) is also particularly partial to the tiny fruit of the *Celtis africana*.

These deciduous trees are a good choice for gardens. They are fairly fast growers, extremely hardy and thrive in cold areas.

MORACEAE

Mulberry Family

In earlier publications, the general name of Fig Family is frequently used to denote this family. However, according to the *National List of Trees* (1978), it is classified as the Mulberry Family. The family name literally means 'plants with mulberry-like leaves'.

Dit is 'n familie wat deur ongeveer 53 genera en 1 400 spesies verteenwoordig word. Lede van hierdie plantfamilie is kosmopolities.

Een van die geslagte wat in hierdie familie aangetref word, is *Ficus*, met ongeveer 1 000 spesies waarvan 24 in Suid-Afrika aangetref word. Dit kom wydverspreid in die warm streke van die land voor.

Net bokant die Droë Sloot, naby die keermuur, staan 'n **Rooiblaarrotsvy** (*Ficus ingens*). Die eerste gedeelte van die naam hou verband met die eetbare vy, bekend as *Ficus carica* (**Gewone Vy**). Die tweede gedeelte van die plant se naam, nl. *ingens*, is 'n Latynse adjektief wat 'groot' beteken. Dit is 'n struikagtige boom met vytjies wat ongeveer 1,5 cm in deursnee is. Dit kom gewoonlik in pare in die blaaroksels voor. Hierdie spesie is bladwisselend en kan 'n verskeidenheid groeivorme aanneem. Dit kan tot 10 m hoog groei of struikagtig bly en soms tussen rotsskeure vasgroeï. In die lente kom die helder koperkleurige blare uit. Dit kan maklik van steggies voortgeplant word, en op groterige rotstuine kan dit baie effektief aangewend word.

Aan die noordekant van die Theo van Wijkgebou, by die Geelhoutboomlaning, groei *F. petersii* = *F. burkei* (**Gewone Wildevy**). Dit kan 'n hoogte van 18 tot 20 m bereik.

Ficus sycomorus (**Gewone Trosvy**) is ook op die kampus te sien en word 'n baie groot boom met takke wat wyd uitsprei. Aan die stam en takke dra die boom trosse harige vytjies. Naby die Watergat is een aangeplant. Voëls wat vrugte vreet, sal met verloop van jare heerlijk aan hierdie vytjies kan vreet. Hier dink 'n mens onder meer aan spesies behorende tot die voëlfamilies Coliidae en Pycnonotidae.

Die meeste *Ficus* soorte is gevoelig vir ryp. Dit is egter pragtige, immergroen of semi-immergroen skadubome wat suksesvol in groot tuine aangeplant kan word.

This small, cosmopolitan family is represented by some 53 genera and 1 400 species.

Ficus, a genus of this family, is represented by approximately 1 000 species, of which 24 are indigenous to South Africa and widely distributed throughout the warm areas of the country.

A specimen of **Red-leaved Rock Fig** (*Ficus ingens*) may be found near the retaining wall just above the Dry Ditch. The generic name bears reference to the edible fig, known as *Ficus carica* (**Common Fig**), while the specific epithet *ingens* is the Latin word for 'huge'. The shrublike tree has little figs, approximately 1,5 cm in diameter and usually borne in pairs in the leaf axils. This deciduous species may vary considerably in shape and size; it may grow to a height of 10 m or remain shrublike. It sometimes becomes affixed in fissures between rocks. The bright, copper-coloured leaves appear in spring. This tree is easily propagated from cuttings and looks very attractive on rather large rockeries.

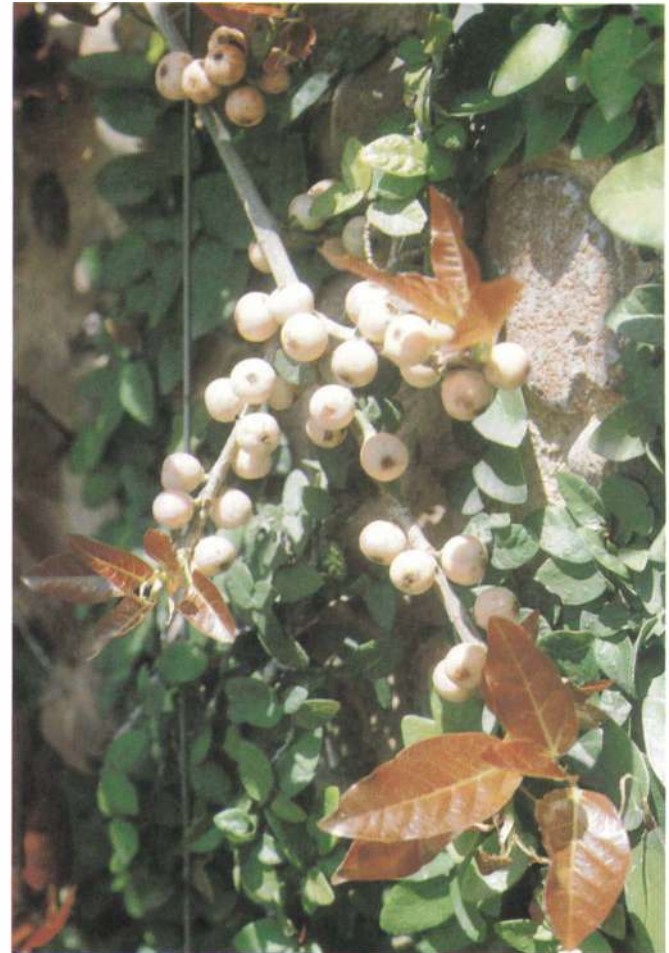
F. petersii (= *F. burkei*) (**Common Wild Fig**) may be seen near the Yellow-wood Avenue, to the north of the Theo van Wijk Building. This species grows to a height of 18 to 20 m. *Ficus sycomorus* (**Sycamore Fig**) is also found on the campus and grows into a very large tree with spreading branches, with clusters of hairy figs borne on the trunk and branches. One specimen has been planted near the Water Hole. Within a few years, fruit-eating birds including species belonging to the families Coliidae and Pycnonotidae, will be seen feeding on the small fruit.

Most *Ficus* species are sensitive to frost. However, they are beautiful, evergreen or semi-evergreen shade trees and may successfully be planted in large gardens.



Ficus ingens
(Rooiblaarrotsvy: vrug — Red-leaved Rock Fig: fruit) (p. 52)

Protea caffra
(Gewone Suikerbos — Common Sugarbush) (p. 54)



PROTEACEAE

Protea-familie

Die **Protea** staan in die volksmond bekend as **Suikerbos** en is ons nasionale blomsoort. Vroeër het die familie dan ook Suikerbos-familie geheet. Linnaeus het die Protea-geslag na Proteus uit die Griekse mitologie of godeleer vernoem.

Hierdie interessante plantefamilie word deur 60 genera en naastenby 1 300 spesies verteenwoordig. Die meeste spesies word in Suider-Afrika en Australië aangetref. Die *Protea*-geslag bestaan uit 130 soorte waarvan ongeveer 82 in die Republiek van Suid-Afrika aangetref word. Die meeste soorte word in Wes-Kaapland aangetref. Hulle is veral baie gelukkig op skynbaar onvrugbare rotsriwwe. Hulle oorleef kwaai veldbrande baie goed.

Dit is 'n boomsoort wat veral baie tipies van die Kaapse flora is alhoewel dit deesdae redelik algemeen in onder meer Transvaalse streke aangeplant word. In Transvaal is 13 spesies reeds bekend wat almal baie goed in die somerreënvalstreek aangepas is. Hierdie geslag bestaan uit struik of kleinerige boompies wat regop, leunend of polvormig groei. Die bloeiwyses is terminaal en alleenstaande.

Aan die oostekant van die Tweede Akademiese Gebou is reeds met die proteatuin van Unisa begin. Hierdie hange van die rant is ideaal vir *Protea*-soorte. In die omgewing van die Wandelpad, aan die oostekant van die Tweede Akademiese Gebou, staan pragtige eksemplare van *Protea caffra* (**Gewone Suikerbos**). Die spesifieke naam kom van die Arabiese woord *kafir* wat 'ongelowige' beteken. Hierdie knoetsige struik of klein boompie, wat tot 5 m hoog kan word, kom op natuurlike wyse hier voor. Ander soorte wat in hierdie omgewing reeds aangeplant is, is *P. cynaroides* (**Groot-suikerkan**), *P. longiflora* (**Langknopsuikerbos**), *P. neriifolia* (**Blousuikerbos**), en *Protea repens* (**Opregte Suikerbos**).

PROTEACEAE

Protea Family

The **Protea**, which is our national flower, is generally known by the common name **Sugarbush**. This family was previously known as the Sugarbush family. Linnaeus named this family after Proteus, a Greek mythological figure.

This fascinating plant family consists of some 60 genera and roughly 1 300 species, most of which are indigenous to Southern Africa and Australia. The genus *Protea* comprises 130 species, of which approximately 82 occur in the Republic of South Africa. Most of these species are found in the Western Cape, usually at fairly high altitudes. **Proteas** thrive best in apparently infertile soil on rocky outcrops and survive veld-fires remarkably well.

This tree is typical of the Cape flora, although many species are now widely cultivated in various regions, including the Transvaal, where they adapt admirably to summer rainfall. In the Transvaal 13 species have already been established. This genus consists of shrubs or smallish trees, which may be erect, spreading or tufted. The inflorescences are terminal and solitary.

Unisa's Protea Garden is already taking shape on the eastern side of the Second Academic Building. These slopes are ideal for the cultivation of *Proteas*. Two superb specimens of *Protea caffra* (**Common Sugarbush**) may be seen near the Nature Trail, to the east side of the Second Academic Building. The specific epithet is derived from the Arabic word *kafir*, meaning 'infidel'. This knotty shrub or small tree, which can grow to a height of 5 m, is indigenous to this area. Other species which have been established in this area are the following: *P. cynaroides* (**Giant Protea**), *P. longiflora* (**Long-bud Sugarbush**), *P. neriifolia* (**Blue Sugarbush**) and *Protea repens* (**Real Sugarbush**).



Bloeiwyse — Inflorescence

Portulacaria afra
(Spekboom — Porkbush) (p. 56)



PORTULACACEAE

Porselein-familie

Hierdie familie word deur 20 geslagte en ongeveer 350 spesies verteenwoordig. Die blare van soorte in hierdie familie is afwisselend, teenoorstaande en baie selde kransgewys gerangskik. Een van die geslagte in hierdie familie staan as *Portulacaria* bekend. *Portulaca* is die Latynse woord vir 'porselein'.

In Bourketuin staan *Portulacaria afra* (**Spekboom**). *Afra* dui daarop dat dit van Afrika is. Dikwels verwys dit na die Noord-Afrikaanse kus (Algerië en Tunisië). Dit is eintlik 'n xerofitiese struikgewas. Die blare en stingels is vlesig, sappig en dien in droogtetypie dikwels as voer vir skape en beeste. Hierdie struik kan tot 2,5 m hoog groei en word soms ook as heiningplant aangewend, waarvoor dit nogal baie geskik is.

LEGUMINOSAE

Peulvrug-familie

Dyer in *The Genera of Southern African Plants*, vol. I, 1975, volg nog die konserwatiewe indeling en behou bogenoemde familie terwyl die drie subfamilies, naamlik Mimosaceae, Caesalpinaceae en Fabaceae (= Papilionaceae) erkenning geniet.

PORTULACACEAE

Purslane Family

This family is represented by some 20 genera and approximately 350 species. The leaves are alternate, opposite and rarely verticillate. One genus of this family is known as *Portulacaria*, *portulaca* being the Latin word for 'porcelain'.

Portulacaria afra (**Porkbush**) may be admired in the Bourke Garden. The epithet *afra* indicates that it is indigenous to Africa, and often refers to the North African coast (Algeria and Tunisia). *P. afra* is actually a xerophytic shrub. The leaves and stems are succulent and fleshy and in times of drought, often used as fodder for cattle and sheep. This shrub may grow to a height of up to 2,5 m. It is sometimes used as a hedge-plant, for which it is admirably suitable.

LEGUMINOSAE

Legume Family

In *The Genera of South African Flowering Plants*, vol. 1, 1975, Dyer follows the conservative classification in retaining this family, while recognising the three subfamilies, Mimosaceae, Caesalpinaceae and Fabaceae (= Papilionaceae).

MIMOSACEAE

Doringboom-familie

In hierdie familie tref ons bome en struik aan wat in 'n meerdere of mindere mate met dorings bewapen is. Die digte blomkwassies met lang uitgestote meeldrade is tipies van plantsoorte in hierdie familie. Die blomme is gewoonlik geel, liggeel en geelwit van kleur. Die blare is gewoonlik dubbel geveer.

In hierdie subfamilie word tien geslagte aangetref, naamlik *Mimosa*, *Albizia*, *Acacia*, *Neptunia*, *Xerocladia*, *Xylia*, *Dichrostachys*, *Newtonia*, *Elephantorrhiza* en *Entada*.

Enkele soorte van die geslag *Acacia* word op die hoofkampus aangetref. Die geslagsnaam kom van die Griekse woord *akis* wat 'n 'skerp punt' beteken. Dit het betrekking op die dorings waarmee die meeste soorte bewapen is. In Bourketuin staan 'n mooi voorbeeld van *Acacia albida* (**Anaboom**). Somige plantkundiges verwys na hierdie spesie as *Eaidherbia albida* wat egter nie oral erkenning geniet nie. Die tweede gedeelte van die naam kom van die Latynse adjektief *albedus*, wat 'witterig' beteken.

Dit is 'n boomsoort wat vinnig groei en tot 20 m hoog kan word. In die onderhawige familie kan hierdie *Acacia*-soort met sy geleri-ge wit blommetjies en groteske voorkoms met reg as een van die indrukwekkendste beskou word. Vir die gemiddelde stadstuin is hierdie spesie nie baie geskik nie aangesien dit te veel ruimte opneem.

Naby die houtbruggie in Bourketuin staan *Acacia burkei* (**Swartapiesdoring**). Die tweede gedeelte van die naam vereer Joseph Burke, 'n versamelaar gedurende die 19de eeu. Hierdie doringboomsoort met sy voortreflike uitspreidende kroon en sneeuwit blommetjies met rooi kelkblare kan 'n hoogte van tot 20 m bereik. Dit is absoluut rypbestand en geskik vir dorps- of stadstuine.

MIMOSACEAE

Thorn-tree Family

This family consists of trees and shrubs which, to a greater or lesser extent, are armed with spines or thorns. The flowers, borne in cylindric spikes or globose heads with protruding stamens, are characteristic of this family. The flowers are usually yellow, pale yellow, or yellowish white. The leaves are usually bipinnate.

The following 10 genera are found in the subfamily: *Albizia*, *Acacia*, *Mimosa*, *Neptunia*, *Xerocladia*, *Xylia*, *Dichrostachys*, *Newtonia*, *Elephantorrhiza* and *Entada*.

A few species of the genus *Acacia* are found on the main campus. The generic name is derived from the Greek word *akis* meaning a sharp point and refers to the spines with which most species are armed. A good specimen of the *Acacia albida* (**Ana Tree**) may be found in the Bourke Garden. Some botanists refer to this species as *Eaidherbia albida*, a name which is not universally recognised. The epithet is derived from the Latin *albedus*, meaning 'whitish'.

This is a fast-growing tree and reaches a maximum height of 20 m. In this subfamily, the *Acacia* species with its yellowish white flowers and grotesque appearance, may justifiably be regarded as one of the most impressive. This species is not suitable for the average garden, since it requires a lot of space.

Acacia burkei (**Black Monkey Thorn**) grows near the rustic bridge in the Bourke Garden. This tree is named in honour of Joseph Burke, a collector during the 19th century. The tree with its beautiful, widespreading crown, snow-white flowers and red sepals can grow to a height of 20 m. It is totally frost-resistant and very suitable as a garden tree.

Acacia caffra (**Common Hook-thorn**) is a species which occurs naturally on the main campus. The epithet *caffra* is derived from

Acacia caffra (**Gewone Haakdoring**) kom van nature op die hoofkampus voor. Die tweede gedeelte van die naam kom van die Arabiese woord *kafir*. Mooi eksimplare kan naby die Prellerstraatingang en in die onmiddellike omgewing van die Watergat gesien word. Dit is 'n boomsoort wat hom by uiteenlopende ekologiese toestande aangepas het en kom derhalwe wydverspreid voor. Die bloeiwyse bestaan uit 'n groot aantal klein, liggeel blommetjies wat in are gedra word. Vanweë die aanpasbaarheid van *A. caffra* kan dit met groot sukses as boom in tuine aangeplant word. Dit groei egter nie baie vinnig nie.

Cossypha caffra (**Janfrederik**) is by die mens aangepas en verkies dikwels hierdie *Acacia*-soort as woonplek. *Chrysococcyx caprius* (**Diedrikkoekoek**) hou ook van hierdie boomsoort terwyl *Cuculus solitarius* (**Piet-my-vrou**) soms sy alombekende roep vanuit die boom laat hoor. *Lanius collaris* (**Gewone Laksman**) gebruik die boom as uitkykpos van waar hy aanvalle op klein voëltjies en klein reptiele doen. *Passer melanurus* (**Gewone Mossie**) is baie lief om sy slordige nes in hierdie inheemse bome te maak. Dit is dan ook nie snaaks dat die **Diedrikkoekoek** naby mossieneste aangetref word nie, want die mossie is sy gasheer. Die weemoedige groep van die *Streptopelia senegalensis* (**Lemoenduif**) weerklink soms vanuit hierdie *Acacia*-soort. Onder die boom vind 'n mens dikwels die **Draaihals** (*Jynx ruficollis*) waar hy insekte op die grond soek. Die slangagtige bewegings van hulle nekke is opmerklik.

Acacia galpinii (**Apiesdoring**) is een van die mees bekende doringboomsoorte. Die spesifieke epiteton vereer Ernest Edward Galpin (1858–1941). By die visdammetjie in Bourketuin staan 'n mooi eksimplaar. Dit is 'n soort wat baie vinnig groei en tot 20 m hoog kan word. Die wye ronde kruin is sterk opvallend. Hierdie spesie kan in groot tuine as skaduboom aangeplant word. Dit is redelik ryp- en droogtebestand. Die blomme word in dun roomgeel tot geel are gedra. Gedurende die wintermaande is die bome gewoonlik blaarloos.

the Arabic word *kafir*. Beautiful specimens of this tree are found near the Preller Street entrance and near the Water Hole. These trees adapt to the most diverse ecological conditions and are thus widely distributed throughout the Republic. The inflorescence consists of a number of small, creamy white flowers, borne in spikes. Due to its adaptability, this tree is an excellent choice for gardens, although it is not a fast grower.

The **Cape Robin** (*Cossypha caffra*) has adapted very well to the presence of human beings and often nests in these *Acacia* trees. *Chrysococcyx caprius* (**Didric Cuckoo**) also favours these trees and the familiar call of the **Red-chested Cuckoo** (*Cuculus solitarius*) is also occasionally heard from these trees, The **Fiscal Shrike** (*Lanius collaris*) uses these trees as a vantage point for hawking tiny birds and small reptiles. *Passer melanurus* (**Cape Sparrow**) often builds its untidy nest in these indigenous trees. The **Didric Cuckoo** is often seen close to the **Cape Sparrow's** nests and no wonder, since this little bird is its host. At times, the mournful cry of *Streptopelia senegalensis* (**Laughing Dove**) mingles with the call of other bird species frequenting these trees. The **Red-breasted Wryneck** (*Jynx ruficollis*) may be observed as it forages for insects beneath the trees, while making remarkably snake-like movements with its long, crooked neck.

The **Monkey Thorn** (*Acacia galpinii*) is one of the best-known species of this genus. The specific epithet honours Edward Galpin (1858–1941). A good specimen may be seen next to the fish pond in the Bourke Garden. This is an extremely fast-growing species and can reach a height of 20 m. It has a remarkably round, wide crown, making it suitable as a shade tree in large gardens. The flowers are borne in slender creamy-yellow to yellow spikes. During the winter these trees generally shed their leaves, but are fairly frost and drought resistant.

Many bird species which have adapted to the proximity of human beings build their nests in the trees and shrubs in gardens. *Pycnonotus barbatus* (**Black-eyed Bulbul**) often perches in the



Soos vooraf reeds genoem, is baie voëlsoorte baie goed by die mens aangepas en gebruik dan ook die bome en struik in tuine as verblyfplek. *Pycnonotus barbatus* (**Swartoogtiptol**) skuil dikwels dan ook in hierdie boomsoort terwyl *Streptopelia capicola* (**Gewone Tortelduif**) dikwels sy byna vervelike *koer-koer-ko* vanuit hierdie bome laat hoor. *Acacia galpinii* dien ook as slaapplek en broeiplek vir hierdie duifsoort.

Naby die **Geelhoutboomlaning**, aan die noordekant van die Theo van Wijkgebou, staan 'n kleinerige eksemplaar van *Acacia gerrardii* var. *gerrardii* (**Rooidoring**). Die spesifieke naam vereer William T. Gerrard. Hierdie spesie word selde groter as 8 tot 10 m. Dit is 'n bladwisselende boom met 'n stam wat redelik regop groei. Die sneeuwit bolvormige blommetjies is baie welriekend. Die saad van hierdie doringboomsoort ontkiem maklik. Dit is 'n boomsoort wat redelik teen ryp bestand is en kan as sierboom in die meeste tuine aangeplant word.

Naby die hekkie in die suidwestelike hoek van Bourketuin staan een eksemplaar van *Acacia hebeclada* subsp. *hebeclada* (**Trassiedoring**). *Hebe* verwys na die godin van die jeug terwyl *klados* die Grieks vir 'takkie' is. Dit het dus op 'n jong takkie betrekking.

In Wes-Transvaal veral is hierdie spesie as **Trassiebos** bekend. Die naam **Blouhaakdoring** is ook bekend. Hierdie spesie met sy skerp, gekromde blou- of rooi doringe kan van 4 tot 7 m hoog groei. Die onderste vertakkinge is naby die grondoppervlak geleë. Die klein, roomkleurige bolvormige blommetjies is baie welriekend. Hierdie *Acacia*-soort is dikwels in die verlede, vanweë die groot skerp en gekromde doringe aan die takke, as heining gebruik ten einde leë en ander roofdiere van skape en beeste weg te hou.

Acacia karroo staan algemeen as **Soetdoring** bekend. Die tweede gedeelte van die naam verwys na die Karoo-landstreek in die Republiek van Suid-Afrika. Dit is seker een van die bekendste soorte in dié geslag. In die omgewing van die Watergat en in Bourketuin staan enkele voorbeelde van hierdie *Acacia*-soort. Die spesie word dwarsdeur die land aangetref. Die baie bekende

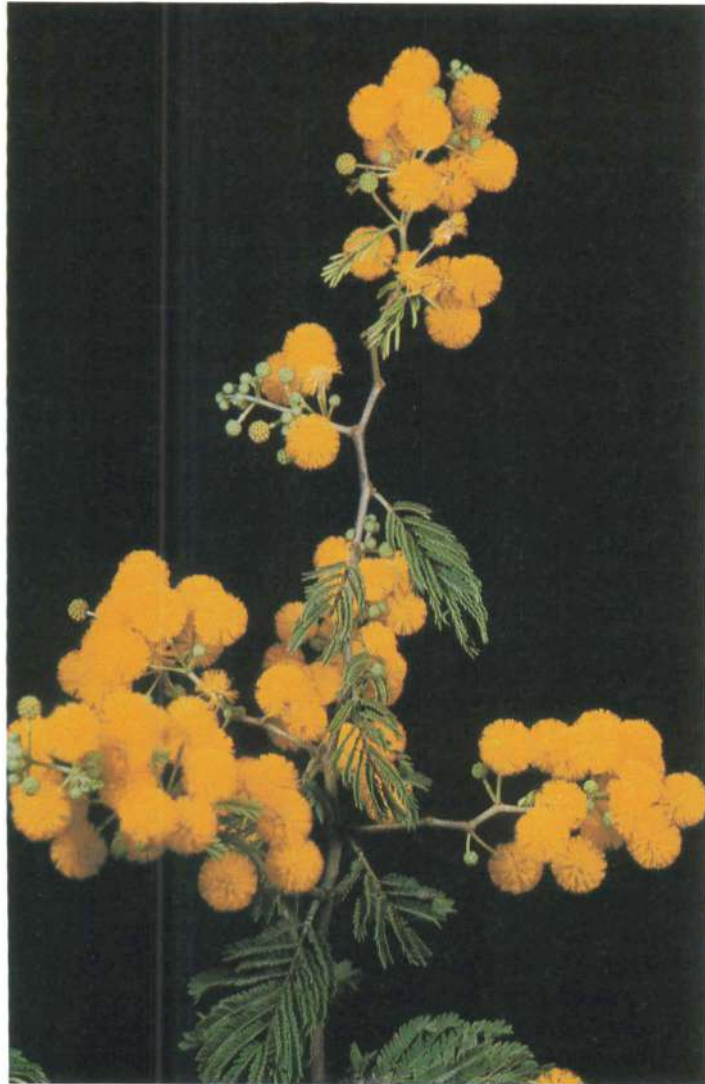
Monkey-thorn (*Acacia galpini*) spesie while the **Cape Turtle Dove** (*Streptopelia capicola*) keeps up an incessant *coor-coor-coo* from its nesting place in these trees.

Near the **Yellowwood Avenue** to the north of the Theo van Wijk Building there is a smallish *Acacia gerrardii* var. *gerrardii* (**Red Thorn**). This species, named after William T. Gerrard, seldom grows to a height of more than 8 to 10 m. It is deciduous and has a fairly erect trunk. The snow-white flowers in white balls are very fragrant. The seeds germinate readily and the trees are fairly resistant to frost. These decorative trees are suitable for most gardens.

Near the gate in the south-western corner of Bourke Garden there is a single specimen of *Acacia hebeclada* subsp. *hebeclada*. *Hebe* refers to the Greek goddess of youth, while *clados* is a Greek word denoting a small branch. The name thus refers to a young branch. The common name '**Trassiebos**' is very well known in the Western Transvaal, but in other regions it is also known as the **Candle Thorn** or **Mouse Bush**. This species is armed with sharp, curved blueish spines or thorns. It branches out near the surface of the soil and reaches a height of 4 to 7 m. Its small, cream-coloured flowers are very fragrant. In the past this tree was often used as a fence around sheep and cattle pens, the sharp, aduncous, long thorns effectively keeping predators at bay.

Acacia karroo is well known by the name **Sweet Thorn** and is probably one of the best-known species of this genus. The epithet *karroo* refers to the Karoo region in the Republic of South Africa. This species may be seen near the Water Hole and in the Bourke Garden. It is widely distributed throughout the Republic. It is believed that Totius, the well-known Afrikaans poet, may have been referring to this species in his classic poem, "Vergewe en Vergeet".

The tree is of moderate height, deciduous and bears fragrant, golden-yellow flowers during December and January. The transparent gum which frequently drips from its almost black branches is edible and pleasant-tasting. This extremely decorative species



Bloeiwyse – Inflorescence

Acacia karroo
(Soetdoring – Sweet Thorn) (p. 60)



volksdigter Totius verwys moontlik in sy gedig *Vergewe en Vergeet* na hierdie boomsoort.

Dit is 'n middelmatig groot en bladwisselende boomsoort wat welriekende goudgeel blommetjies gedurende Desember tot Januarie dra. Die waterkleurige gom wat dikwels uit die byna swart stamme drup, smaak lekker. Hierdie spesie is baie dekoratief en bestand teen droogtes en koue. Dit word algemeen in tuine in die Republiek aangeplant aangesien dit in uiteenlopende klimatologiese toestande groei.

In Pretoria, onder meer, word van die Voëlent-familie – Loranthaceae – aan takke van hierdie *Acacia*-soort aangetref. Veral twee soorte kom voor, naamlik *Loranthus rubromarginatus* met sy slanke en helderkleurige blomme, en *Viscum rotundifolium* met sy onopsigtelike blommetjies en mooi rooi, oranje of geel eiovormige vruggies. Die vruggies met hulle klewerige inhoud word deur voëls gevreet wat hulle taai bekke, met die saad daaraan, aan takke afvee om sulke bome sodoende met 'n moontlike nuwe parasiet in te ent.

By die blomme van *Acacia karroo* tref 'n mens dikwels die volgende voëlsoorte aan: *Nectarinia talatala* (**Witpenssuikerbekkie**) en *Nectarinia amethystina* (**Swartsuikerbekkie**). Hulle is gedurig op soek na insekte of nektar. Wanneer die vruggies van die **Voëlent** aan hierdie *Acacia*-soort ryp is, daag voëlsoorte soos *Colius striatus* (**Gevlekte Muisvoël**) en *Pycnonotus barbatus* (**Swart-oogtiptol**) dan ook op as besoekers. Die **Gewone Lyster** (*Turdus olivaceus*) vreet die vruggies wat onder die bome lê.

Acacia nigrescens het die baie tiperende volksnaam **Knoppies-doring**. Die tweede gedeelte van die naam kom van die Latynse werkwoord *nigrescere*, wat beteken 'om swart te vertoon'. In Bourketuin staan 'n mooi voorbeeld van hierdie *Acacia*-soort. Dit is terloops ook baie gesog vir doeleindes van *bonsai*-kweking.

Hierdie spesie is maklik van die ander doringboomsoorte te onderskei aan die skerp puntige knoppies aan die stam en die betreklike groot blaartjies. Dit is een van die eerste soorte in die *Acacia*-

is both frost and drought-resistant. The fact that it will thrive under the most divergent climatic conditions, makes it popular as a garden tree.

The Birdlime family – Loranthaceae – is a parasite found on the branches of these trees in various regions, including Pretoria. The two most prevalent species are *Loranthus rubromarginatus* with its slender, brightly coloured flowers, and *Viscum rotundifolium* which bears tiny, inconspicuous flowers and attractive, red, orange and yellow ovate berries. The fruit of these species with the sticky content are eagerly sought after by various bird species, who probably spread this parasite by wiping the seeds clinging to their sticky beaks on the branches of uninfected trees.

The following birds are frequently observed around the flowers of the *Acacia karroo*: *Nectarinia talatala* (**White-bellied Sunbird**) and *Nectarinia amethystina* (**Black Sunbird**), both in search of insects or nectar. When the tiny fruit of the **Birdlime** ripen, these *Acacia* trees are visited by the *Colius striatus* (**Speckled Mousebird**) and *Pycnonotus barbatus* (**Black-eyed Bulbul**). *Turdus olivaceus* (**Olive Thrush**) feeds on the berries below these trees.

Acacia nigrescens is commonly known by the very apt name, **Knob Thorn**. The epithet *nigrescens* is derived from the Latin word which denotes a black appearance. In the Bourke Garden a beautiful specimen of this tree may be seen. This species, incidentally, is extremely popular for the cultivation of bonzai trees.

The sharp-pointed knobs on the trunk and relatively large leaves of this species readily distinguishes it from other thorn-trees. It is one of the first *Acacia* species to flower in spring. It is deciduous and its spreading, roundish crown reaches a height of 15 to 18 m. The snow-white flowers, borne in spikes, have a pale pink base and appear early in August. *Acacia nigrescens* is drought-resistant and a very slow grower. The wood, therefore, is extremely hard and often utilised as corner-posts. Participants in the typically South Africa sport of 'Jukskei' are fond of using this hard wood for mak-



geslag wat in die lente blom. Dié bladwisselende soort kan van 15 to 18 m. hoog groei met 'n uitspreidende, ronderige kroon. Die sneeuwit blommetjies met 'n ligroos basis kom vroeg in Augustus in are uit. *Acacia nigrescens* is droogtebestand en groei baie stadig. Die hout is derhalwe baie hard en word dikwels as hoekpale gebruik. Persone wat jukskei speel, vervaardig dikwels hulle skeie van hierdie houtsoort. Aangesien die boom nie absoluut ryp bestand is nie, kan dit slegs in tuine aangewend word waar dit effens beskut aangeplant word of waar dit redelik rypvry is.

By die Droë Sloot, regoor die westekant van die Prellerstraating, en in Bourketuin staan baie mooi voorbeelde van *Acacia sieberana* var. *woodii*. (**Papierbasdoring**). Die spesifieke epiteon vereer Franz Sieber (1789–1844), terwyl die variëteitnaam vir Medley Wood (1827–1915) vereer.

Hierdie spesie met sy kenmerkende dik, geelgrys, kaal stam en plat uitspreidende kroon is bladwisselend. Dit kan 'n hoogte van 10 tot 14 m bereik. Gedurende November tot Desember is die spesie met sy spierwit, welriekende bolvormige blommetjies baie opvallend. Dit kan beslis in 'n groter mate as sierboom in tuine aangeplant word al is dit effens sensitief vir ryp. Dit is 'n matig vinnige groeier. Hierdie *Acacia*-soort veroorsaak blousuurvergiftiging (geilsiekte) as verlepte blare wat op die grond lê deur diere gevreet word.

Acacia tortilis subsp. *heteracantha* (**Haak-en-steek**) se epiteon het betrekking op die gedraaide saadpeule terwyl die subspe-sienaam 'n Griekse woord is wat na die afwisselende skerp en gedraaide doring verwys. In Bourketuin staan slegs een eksemplaar hiervan. Hierdie spesie word wydverspreid in veral die warmer dele van ons land aangetref. Dit is 'n middelmatige groot boomsoort wat bladwisselend is. Dit kan tot 10 m hoog groei en die kroon van die boom is plat uitspreidend, byna sambreelvormig. Aan die ou hout verskyn jaarliks gedurende November tot Desember klein wit blommetjies. Dit groei stadig, is droogtebestand en staan bekend as een van ons mooi inheemse sierbome.

ing skeys. As these trees are not completely frost-resistant, they should be planted in a protected corner of the garden, or in areas which are reasonably free of frost.

Near the Dry Ditch, directly opposite the Preller Street entrance and also in the Bourke Garden, there are some beautiful specimens of *Acacia sieberana* var. *woodii* (**Paperbark Thorn**). The species is named in honour of Franz Sieber (1789–1844), while the variety is named after Medley Wood (1827–1915).

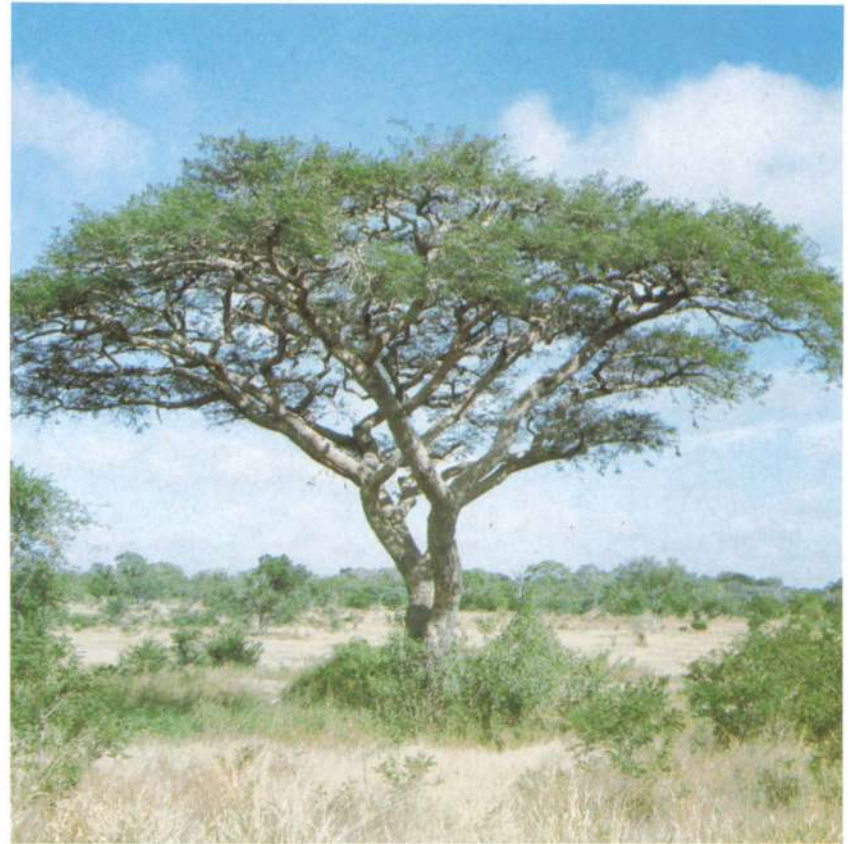
This deciduous species with its characteristic thick, yellow-grey, smooth trunk and flat, spreading crown, grows to a height of 10 to 14 m. During November and December these trees are covered in snow-white balls of fragrant little flowers and make a beautiful show. Although slightly sensitive to frost, these trees are well worth planting, as they are very decorative. This species is a moderate fast grower. The withered leaves which fall to the ground, cause prussic acid poisoning or 'geilsiekte' when eaten by cattle.

The specific epithet of *Acacia tortilis* subsp. *heteracantha* (**Umbrella Thorn**) refers to the curved seed-pods, while *heteracantha* is derived from a Greek word denoting alternate, curved and sharp spines. Only one specimen is found in the Bourke Garden. This species is widely distributed throughout the Republic, particularly in warmer regions. It is a moderately large, deciduous tree, with a large, flat, spreading crown, very much like an umbrella, and grows to a height of up to 10 m. Small, white flowers appear in balls on the old wood each year during November and December. It is a slow grower, does well in arid regions and is recognised as one of the most attractive of our decorative, indigenous trees.

The **Fever Tree** is botanically known as *Acacia xanthophloea*. The specific epithet is derived from a Greek word and refers to the pale bark of the tree. Some beautiful specimens are found in the Bourke Garden and also near the bottom of the Dry Ditch at the Preller Street entrance. This large, deciduous tree reaches a maxi-



Acacia nigrescens
(Knoppiesdoring – Knob Thorn) (p. 62)



Acacia sieberana var. *woodii*
(Papierbasdoring – Paperbark Thorn) (p. 64)

Die **Koorsboom** is botanies as *Acacia xanthophloea* bekend. Die tweede gedeelte van die naam is afgelei van 'n Griekse woord wat na die wit bleekheid van die stamme verwys. Mooi eksemplare kan in Bourketuin en naby die onderpunt van die Droë Sloot langs Prellerstraat besigtig word. Dit is 'n groot bladwisselende boomsoort wat tot 15 m hoog kan groei. Die geel, bolronde blommetjies is welriekend en kom in die vroeë somer te voorskyn.

Die teenwoordigheid van hierdie boomsoort onder meer in die Transvaalse Laeveld waar malaria baie voorgekom het, het aanleiding gegee tot die algemene naam **Koorsboom**. Die geelgroen stam het ook moontlik vir die Voortrekkers 'n sieklike voorkoms gehad. Dit is 'n soort boom wat baie vinnig groei, maar nie absoluut rypbestand is nie. Dit kan egter in groot tuine in 'n beskutte posisie aangeplant word.

CAESALPINIACEAE

Flambojant-familie

Die blomme van hierdie familie het goed ontwikkelde kroonblare en kelkblare in teenstelling met dié van die Mimosa-familie met hul mooi helmstrate en helmknoppe.

Hierdie tropiese familie word deur ongeveer 135 geslagte en 1 600 spesies verteenwoordig waarvan 75 in Suidelike Afrika voorkom. Slegs 'n paar spesies word in die Republiek van Suid-Afrika aangetref.

Burkea africana (**Wildesering**) is een spesie wat in Suid-Afrika bekend is. Die geslagsnaam vereer J. Burke (1812–1873) terwyl die spesifieke naam daarop dui dat dit uit Afrika kom. Dit is 'n middelmatige groot boomsoort met roeskleurige en dig wollerige takkies. Die klein, wit tot roomkleurige blomme is in enkele neer-

mum height of 15 m. The globous, yellow, fragrant flowers appear in early summer.

The fact that this tree also occurs in the Transvaal Lowveld, where malaria was very prevalent in the early days, gave rise to its common name. The yellow-green trunk of this species possibly also led the Voortrekkers to believe that the trees were unhealthy. **Fever Trees** are very fast growers, but slightly sensitive to frost. They do well in large gardens when planted in a sheltered spot.

CAESALPINIACEAE

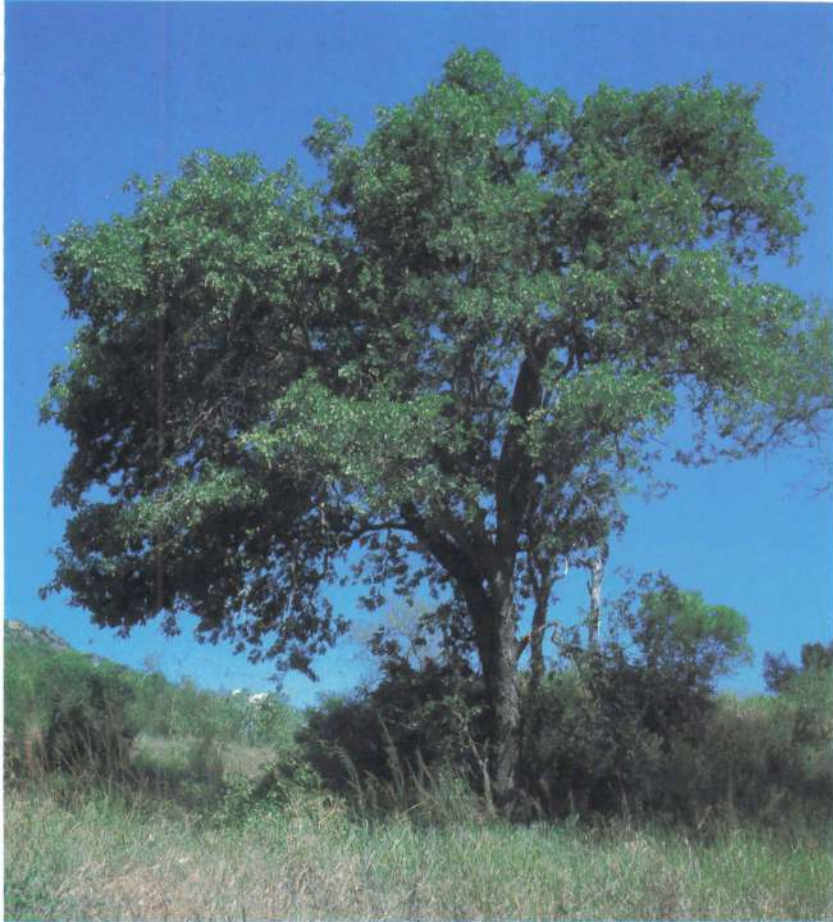
Flambojant Family

The petals and sepals of the flowers in this family are well-developed and contrast sharply with those of the Mimosa Family, with their conspicuous filaments and anthers.

This tropical family is represented by some 135 genera and 1 600 species, of which 75 are found in Southern Africa, although only a few species occur in the Republic of South Africa.

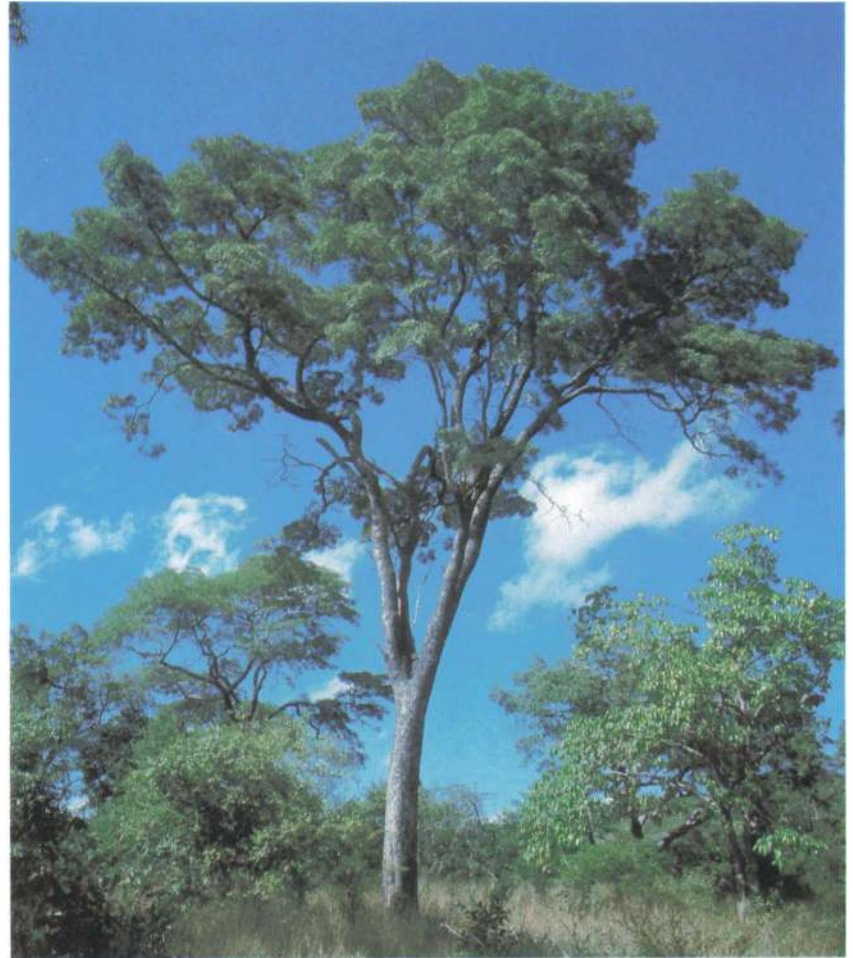
Burkea africana (**Wild Seringa**) is one species which is known in South Africa. The genus is named after J. Burke (1812–1873), while the specific name indicates that this species is indigenous to Africa. It is a moderately large tree with rust-coloured, dense, tomentose branches. The tiny white to cream-coloured flowers are arranged in single pendulous, graceful spikes. The slender, panicle spikes can be up to 20 cm in length. It is a fairly fast grower and rather hardy. Along the Nature Trail and in Bourke Garden a few examples can be seen.

The **Mopane Tree** is botanically known as the *Colophospermum mopane*. The generic name refers to the type of seed. It is a monotypical species, in other words, only one species is known. This very well-known tree can be found in the Bourke Garden.



Burkea africana
(Wildesering — Wild Seringa) (p. 66)

Schotia brachypetala
(Huilboerboon — Weeping Boer-bean) (p. 68)



hangende are gerangskik. Die dun blomare kan tot 20 cm lank word. Hierdie boomsoort groei redelik stadig en is betreklik gehard. Langs die Wandelpad en in Bourketuin staan enkele eksimplare.

Die **Mopanieboom** (*Colophospermum mopane*) se generiese naam hou met die saad verband. Dit is 'n monotipiese boomsoort, dit wil sê slegs een spesie is bekend. In Bourketuin kan hierdie baie bekende boomsoort besigtig word.

Die **Mopanieboom** is bladwisselend en kan ongeveer 14 tot 16 m hoog word. Dit groei regop, maar veelstammige voorbeelde kom dikwels voor. Die groenkleurige blommetjies is redelik onopvallend en word in klein afhangende, saamgepakte trosse gedra. Gewoonlik kom die blommetjies van Desember tot Januarie te voorskyn. Hierdie boomsoort groei stadig en is rypgevoelig. As dit egter op 'n redelik beskutte plek geplant word, kan dit tot 'n mooi sierboom groei. Olifante is volgens waarneming baie lief vir die blare en jong takkies van hierdie spesie.

Die volksnaam vir *Schotia brachypetala* is **Huilboerboon**. Die geslagsnaam vereer Richard van der Schot. Die tweede gedeelte van die naam beteken letterlik 'kort en blomkroondraend'. In Bourketuin staan drie voorbeelde wat jaarliks pragtig blom en baie saad voortbring. Hierdie middelmatige groot, bladwisselende boom kan 'n hoogte van 12 m. bereik. Dit het 'n uitspreidende ronde kroon. Gedurende die winter verloor die bome vir 'n kort rukkie hulle blare waarna die pragtige, opvallende, nuwe rooibruin blaartjies uitkom.

Die **Swartoogetiptol** (*Pycnonotus barbatus*) en die **Gevlekte Muisvoël** (*Colius striatus*) is baie lief vir die saad van hierdie boomsoort. Die rooi blommetjies is so oorlaai met nektar dat dit letterlik afdrup, vandaar dan ook die algemene naam **Huilboerboon**. Gedurende die blomperiode besoek baie inseksoorte die blomme terwyl voëlsoorte soos die **Swartsuikerbekkie** (*Nectarinia amethystina*) dan ook gereelde besoekers is om jag te maak op die insekte of om nektar te soek.

The Mopane Tree is deciduous and reaches a height of 14 to 16 m. It is erect, and many trees have several trunks. The rather inconspicuous green flowers are borne in small, pendulous, compact racemes, appearing from December to January.

This is a slow grower and sensitive to frost, if planted in a protected spot, it will develop into an attractive and decorative tree. According to naturalists, elephants are very fond of the young branches and leaves of this tree.

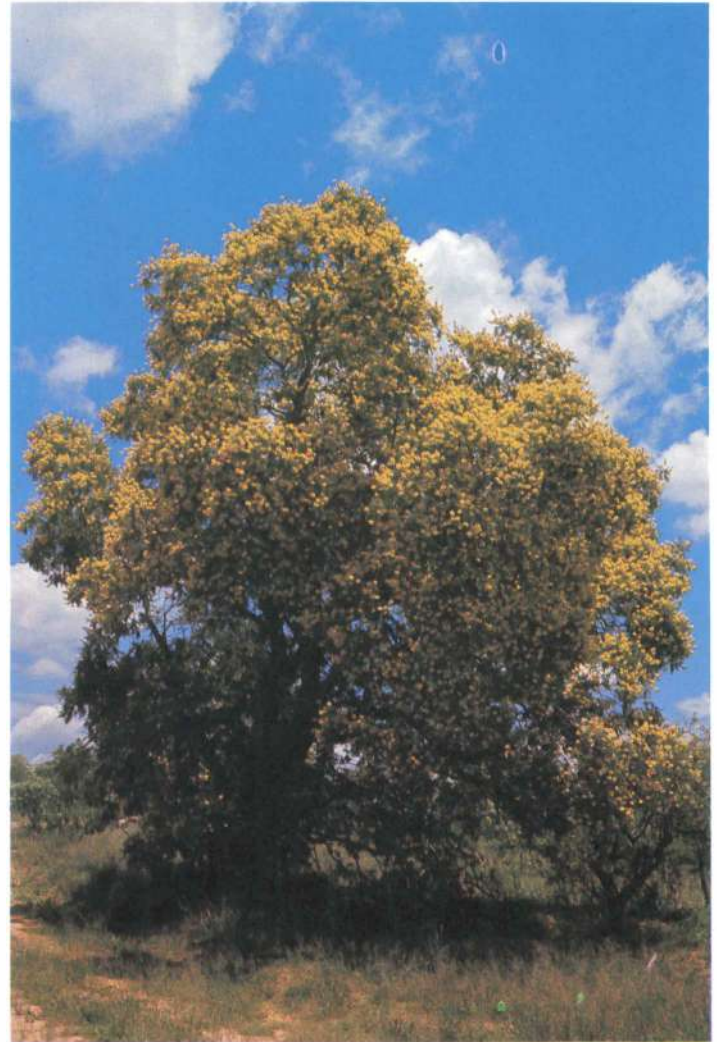
Schotia brachypetala (**Weeping Boer-bean**) is named after Richard van der Schot, while the specific name means 'short and corolliferous'. The three **Tree Fuchsias** (as this species is also called) in the Bourke Garden bear exquisite flowers and pods each year. This moderately tall, deciduous tree reaches a height of up to 12 m and has a spreading crown. A short while after the leaves are shed in winter, these trees produce beautiful new, red-brown leaves.

The **Black-eyed Bulbul** (*Pycnonotus barbatus*) and the **Speckled Mousebird** (*Colius striatus*) are particularly fond of the seeds on this species. Nectar is produced in such abundance that it literally drips from the flowers, giving rise to its very apt common name. Various insects may be observed buzzing about the flowers, while birds such as the **Black Sunbird** (*Nectarinia amethystina*) also regularly hawk insects or frequent the flowers in search of nectar. These trees are eminently suitable for planting in gardens. They are fairly fast growers and can withstand a moderate amount of frost.

The genus *Bauhinia* also belongs to this family. There are about 500 species distributed throughout tropical and subtropical regions. In South Africa there are nine species, all of which occur in the Transvaal. This genus, with its characteristic twin leaves, was named after the brothers John and Casper Bauhin, two sixteenth century Swiss botanists. *Bauhinia galpinii* (**Pride-of-De-Kaap**) will be found in the Bourke Garden and also in the Water Garden. The specific epithet honours Ernest Edward Galphin

Peltophorum africanum
(Huilboom – Weeping Wattle) (p. 70)

Bauhinia galpini
(Vlam-van-die-Vlakte – Pride-of-De Kaap) (pp. 68, 70)



Hierdie boomsoort is besonder geskik vir aanplanting in tuine. Dit groei taamlik vinnig en kan 'n redelike mate van ryp verduur.

Die *Bauhinia*-geslag behoort ook tot hierdie familie. Dit bevat ongeveer 500 spesies wat verspreid oor tropiese en subtropiese lande voorkom. In Suid-Afrika kom nege spesies voor waarvan almal uit Transvaal vermeld is. Hierdie geslag met sy tipiese tweelingblare vereer die broers John en Casper Bauhin wat Switserse plantkundiges gedurende die jare 1541–1624 was. By die Watertuin en in Bourketuin staan enkele eksemplare van een spesie uit hierdie geslag, naamlik *Bauhinia galpinii* (**Vlam-van-die-Vlakte**). Die spesifieke epiteton vereer Ernest Edward Galpin (1858–1941). Die jaspisrooibloem van hierdie plantsoort is baie opvallend en versier gewoonlik die tuin dwarsdeur die somermaande.

Vlam-van-die-Vlakte is nie alleen baie kleurrik nie, maar groei ook baie maklik van saad en steggies. Dit is veral baie geskik naby 'n muur of in die hoek van 'n tuin. Dit kan in 'n struikvorm gesnoei word of as klouterplant aangewend word. As dit nie gereeld gesnoei word nie, kan dit mettertyd 'n slordige voorkoms kry.

Peltophorum africanum is algemeen as **Huilboom** bekend. Die Griekse woord *pelte* beteken 'skild' terwyl *phoreo* 'om te dra' beteken. Die naam het betrekking op die stempel van hierdie tropiese boomsoort. In Bourketuin, net oos van die tennisbaan, groei 'n eksemplaar van hierdie spesie.

Hierdie boomsoort is van middelmatige grootte. Dit kan tot 10 m hoog groei met 'n digte, redelik uitspreidende kroon. Die stamme is gewoonlik baie krom en vertak naby die grondoppervlak. Gedurende November tot die einde van Januarie kom die heldergeel blomme te voorskyn. Dit word beweer dat olifante en impalas baie lief is vir die jong blare. Dit is 'n soort wat betreklik vinnig groei en 'n redelike mate van ryp kan verdra.

(1858–1941). The striking, dark red flowers of this species may usually be seen right through the summer.

Besides being extremely colourful, **Pride-of-De-Kaap** is also easily propagated from seed and cuttings. It is particularly suitable for planting near a wall and trained as a climber, or in a corner of the garden and trimmed into a shrub. This species becomes very untidy if not regularly pruned.

Peltophorum africanum is commonly known as the **Weeping Wattle**. The Greek word *pelte* signifies 'a shield', while *phoreo* means 'to carry'. The name refers to the stigma of this tropical species. A specimen is found in the Bourke Garden, to the east of the tennis courts.

This species is of medium height and grows up to 10 m tall, with a dense and rather spreading crown. The branches are very curved and usually branch out close above the surface of the soil. The bright yellow flowers appear from November to the end of January. It has been claimed that elephants and impala are particularly partial to the young leaves of these trees. This species is a fairly fast grower and can withstand a fair amount of frost.

FABACEAE (= PAPILIONACEAE)

Ertjie-familie

Hierdie familie sluit ongeveer 10 000 spesies en 375 genera in waarvan die meeste kruidagtig is. Enkele struik en bome is egter ook verteenwoordig in die familie wat in gematigde gebiede voorkom. Die kroonblare van soorte in hierdie familie is baie aantreklik en goed ontwikkel.

Die *Virgilia*-geslag word deur slegs twee spesies verteenwoordig wat in Suid-Kaapland aangetref word. Die generiese naam, of eerste gedeelte van die naam, is ontleen aan die Latynse digter Vergilius. Dit is kleinerige boompies wat selde noër as 9 m groei.

In die Broodboomtuin staan *Virgilia oroboides* (**Keurboom**). Die byvoegsel *oroboides* dui op 'n verwantskap met die geslag *Orobos* (met ertjievormige blomme). Wanneer die bome blom, is hulle met wit tot byna dieppienk ertjievormige blomme oortrek wat in trosse in die oksels van die blare aan die punte van die jong takke gedra word. Die blomme ruik besonder lekker en is swaar belaa met nektar. Bome wat blom, word ook druk besoek deur onder meer soorte **Suikerbekkies** behorende tot die familie Nectariniidae.

Hierdie immergroen boom kan nie baie strawwe ryp verdra nie. Dit groei besonder vinnig maar het ongelukkig 'n kort lewensduur. Dit word selde ouer as 12 tot 20 jaar.

Wes van die dam naby die wandelpaadjie in Bourketuin, staan enkele mooi eksemplare van *Bolusanthus speciosus* (**Vanwykshout**). Die genusnaam vereer Harry Bolus (1854–1911), die stigter van die Bolus-herbarium. *Speciosus* beteken 'mooi' of 'op-sigtelik opvallend'. Dit is monotypies, dit wil sê, daar is slegs een soort bekend. Hierdie boomsoort bereik 'n hoogte van ongeveer 16 m. Dit kan as halfbladwisselend beskou word aangesien dit net 'n klein tydjie blaarloos is. Die pragtige bloupers, **Wisteria**-agtige

FABACEAE (= PAPILIONACEAE)

Pea Family

This family of some 375 genera and 10 000 species consists mostly of herblike plants although a few shrubs and trees are also represented in this family, which is found in temperate regions. The petals of species belonging to this family are extremely attractive and well-developed.

The genus *Virgilia* is represented by only two species, both of which are found in the Southern Cape Province. The generic name refers to the Latin poet, Virgil. These trees are small and rarely become taller than 9 m.

A member of this family is *Virgilia oroboides*, commonly known as the **Blossom Tree**. The epithet *oroboides* is indicative of a relationship with the genus *Orobos* (= with pea-shaped flowers). When in bloom, the trees are covered in off-white to deep pink, pea-shaped flowers in clusters arising from the axils of the leaves at the terminals of the young branches. The flowers have an unusually sweet smell and are heavily laden with nectar. Various bird species, including **Sunbirds** belonging to the family Nectariniidae, frequent these trees when in bloom.

This evergreen species is sensitive to heavy frost. It is a very fast grower, but unfortunately has a short life-span and rarely lives for more than twelve to twenty years.

On the western side of the dam near the Nature Trail in the Bourke Garden, beautiful specimens of *Bolusanthus speciosus* (**Tree Wistaria**) may be admired. The genus was named after Harry Bolus (1854–1911), the founder of the Bolus Herbarium. *Speciosus* means 'conspicuous', 'striking'. It is monotypical, in other words, only one species is known. This tree reaches a height of some 16 m. Since this species is leafless for a very short period, it is considered to be semi-deciduous. The exquisite blue-mauve,

blomtrosse kom vroeg in die lente uit, sodra die eerste samegestelde blaartjies wil ontluk.

Hierdie endemiese plantsoort (= eie aan ons land) kan met baie groot sukses in tuine aangeplant word. Dit kan redelik maklik van saad gekweek word en is redelik rypbestand. Op die Hoëveld sal dit egter teen koue beskerm moet word.

In Bourketuin, onder een van die groot **Witstinkhoutbome**, staan *Millettia grandis*. Algemeen is dit as **Omsambeet** bekend. Die volksnaam hou verband met die naam **Ysterhout**. Die tweede gedeelte van die naam beteken 'groot' of 'opvallend', terwyl die betekenis van die eerste gedeelte van die naam onbekend is. Hierdie geslag bestaan uit bome of struie wat soms klimmend van aard is. Die geslag word deur ongeveer 300 kosmopolitiese soorte verteenwoordig. Dit word hoofsaaklik in tropiese en subtropiese streke aangetref. In die Republiek van Suid-Afrika kom slegs twee soorte voor. Die boomsoort kan tot 14 m hoog groei. Die bloeiwyse bestaan uit 'n eindstandige blompluim. Die roesbruinblomme is baie opvallend. Die saadpeule het 'n fluweelagtige bruin kleur.

Op die hoofkampus kan enkele soorte behorende tot die geslag *Pterocarpus* (**Wildekiaatbome**) besigtig word. Die spesifieke epiteton is 'n samestelling van twee Griekse woorde *pteron* en *karpos* wat respektiewelik 'vlerk' en 'vrug' beteken. Hierdie geslag word deur ongeveer 100 kosmopolitiese soorte verteenwoordig. In Suid-Afrika word vier spesies aangetref. Dit kom veral in tropiese en subtropiese gebiede voor. Die blomme is gewoonlik geel en die blare is onewe, geveer en gestipuleer.

In Bourketuin, naby die tennisbaan, staan *P. angolensis* (**Kiaat**). Die tweede gedeelte van die naam verwys na die land Angola. Hierdie boomsoort kan 'n hoogte van tot 15 m bereik. Dit is bladwisselend. Voordat die blare afval, kry dit 'n opvallende donkergeel kleur. Die plat uitspreidende kroon is baie kenmerkend van hierdie spesie. Die duursame hout word vir die maak van meubels gebruik. Die vrug van *P. angolensis* bestaan uit 'n skyfvormige peul met 'n stekelrige, verdikte sentrale deel. Die goud- tot geel-

Wistaria-like racemes appear early in spring, as soon as the first composite leaves are ready to open.

This endemic species will thrive in most gardens. It grows fairly easily from seed and is reasonably frost resistant. On the Highveld, however, it must be protected from extreme cold.

Millettia grandis grows beneath one of the tall **White Stinkwood Trees** in the Bourke Garden. This species is commonly known as the **Umzimbeet**, a name which relates to **Ironwood**. The epithet *grandis* denotes large or striking, while the origin of the generic name is unknown. This genus consists of small trees and shrubs, some of which are inclined to be scandent. It is a more or less cosmopolitan genus, represented by some 300 species, mainly in tropical and subtropical regions. Only two species are indigenous to South Africa. The maximum height is 14 m and the inflorescence consists of a terminal panicle. The rust-brown flowers are very striking and the seed-pods are a velvety, brown colour.

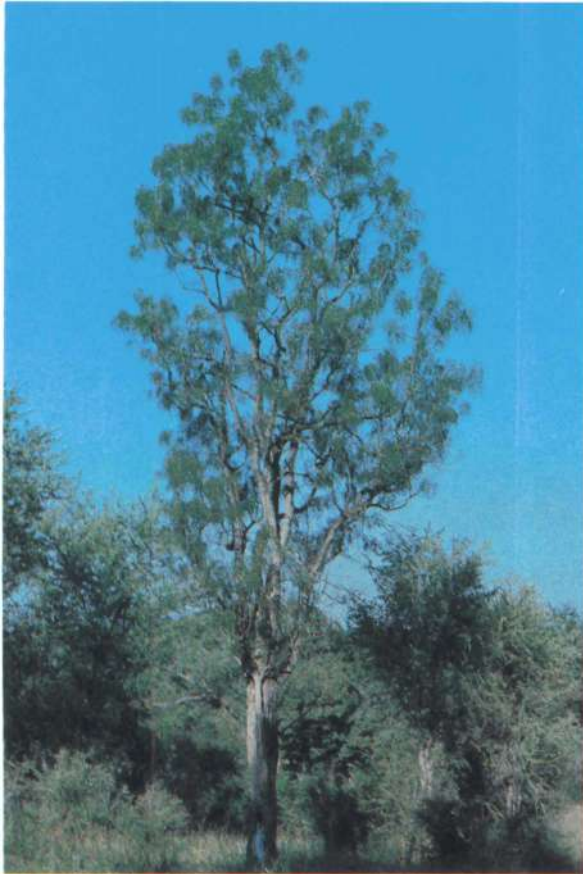
Species belonging to the genus *Pterocarpus* (**Wild Teak Trees**) are found on the main campus. This designation is a combination of two Greek words, *pteron* and *carpos* denoting 'winged' and 'fruit'. The genus is represented by about 100 cosmopolitan species, of which four are found in South Africa. It is mainly found in tropical and subtropical regions. The flowers are usually yellow, while the leaves are imparipinnate and stipulate.

P. angolensis (**Transvaal Teak**) is found near the tennis courts in the Bourke Garden. The specific epithet refers to Angola. This tree reaches a height of up to 15 m. It is deciduous and before the leaves are shed, they turn a striking, dark yellow colour. The flat, spreading crown is characteristic of this species. The durable wood is used for furniture. The fruit of this tree consists of a disc-shaped pod with a spiny, thickened central portion. The fragrant, golden to yellow pea-shaped flowers are borne in large branched sprays. This beautiful, but slow growing tree undoubtedly deserved to be included in most landscape planning.

Pterocarpus rotundifolius subsp. *rotundifolius* (**Round-leaved**

Erythrina lysistemon
(Gewone Koraalboom – Common
Coral Tree) (pp. 74, 75)

Bolusanthus speciosus
(Vanwykshout – Tree Wistaria) (p. 71)



kleurige ertjievormige blomme is welriekend en word in groot vertakte trosse gedra. Dit is 'n pragtige boom wat stadig groei, maar wat beslis 'n plek in meeste landskapsbeplannings verdien.

Pterocarpus rotundifolius subsp. *rotundifolius* (**Dopperkiaat**) staan ook in Bourketuin naby die ander spesie. *Rotundifolius* beteken letterlik 'met ronde blare'. **Dopperkiaat** se hout is na bewering van 'n swakker gehalte as dié van **Kiaat**. Gedurende November tot Desember is die **Dopperkiaat** oortrek met neergolwende pluime, soetruikende, geelkleurige ertjieblomme.

In 1981 was die *Acacia* die boom van die jaar. In 1982 was die **Koraalboom** (*Erythrina*), wat vroeër as die **Kafferboom** bekend was, die boom van die jaar.

Op grond van die peul ressorteer die *Erythrina* onder die orde Leguminales (peulplante), en op grond van die uitbeelding van die blom onder die familie Fabaceae. Hierdie geslag word deur ongeveer 100 spesies verteenwoordig. Dit kom in warm lande voor. Ongeveer sewe spesies word in Suid-Afrika aangetref, waarvan vier in Transvaal voorkom, naamlik *E. latissima*, *E. humeana*, *E. zeyheri* en *E. lysistemon*.

In die Broodboomtuin van Unisa staan *Erythrina acanthocarpa* (**Tamboekiedoring**). Die geslagsnaam is afgelei van die Griekse woord *erythros* wat 'rooi' beteken. Die tweede gedeelte van die naam kom van die Griekse woorde *akanthos*, wat 'stekel' beteken en *karpus* wat 'vrug' beteken. Hierdie struik word selde hoër as 1 tot 2 m en vorm meesal boskasies. Die donkerrooi blomme is baie mooi. Die ertjievormige saad is donkerrooi van kleur.

Ander spesies in die Broodboomtuin is *E. humeana*, *E. lysistemon* en *E. zeyheri*.

Erythrina humeana (**Kleinkoraalboom**) bereik 'n hoogte van ongeveer 4 m. Die oorsprong van dié spesifieke naam kon nie nagespreek word nie. Die donkerrooi blomme is hangend, buig effens terug, en kom in langgesteelde trosse aan die takpunte voor. Hierdie spesie groei vinnig en moet van saad gekweek word. Dit verdien as struik meer aandag in die tuin.

Teak) is also found in the Bourke Gardens, near the other species. The word *rotundifolius* means 'round leaves'. The wood of this species is of a poorer quality than that of **Transvaal Teak**. During November and December, the *Round-leaved Teak* is covered in cascading sprays of fragrant, pea-shaped yellow flowers.

In 1981, the *Acacia* was chosen as Tree of the Year, while the **Coral Tree**, previously known as the **Kaffir Tree**, was selected in 1982. This tree belongs to the genus *Erythrina*.

As the *Erythrina* is leguminous, it is also classified in the order Leguminales (pod plants), while it is classified as belonging to the family Fabaceae on account of the shape of its flowers. This genus is represented by some 100 species. Its distribution is limited to warmer climates. Some seven species are found in the Republic of South Africa, the following four of which occur in the Transvaal: *E. latissima*, *E. humeana*, *E. zeyheri*, and *E. lysistemon*.

Erythrina acanthocarpa (**Tambuki Thorn**) is found in the Cycad Garden. The genus is derived from the Greek word *erythros*, meaning 'red'. The specific epithet is derived from the Greek words *acanthos* (= spine) and *carpus* (= fruit). This shrub rarely reaches a height of more than 1 to 2 m and is inclined to become bushy. The dark red flowers are particularly attractive. The pea-shaped pods are also dark red.

E. humeana, *E. lysistemon* and *E. zeyheri* may also be seen in the Cycad Garden.

Erythrina humeana (**Dwarf Coral Tree**) grows to a height of some 4 m. The origin of the specific epithet is unknown. The brilliant scarlet flowers are borne in long-stalked racemes on the branch terminals. The flowers are pendulous and slightly recurved. These plants are fast-growing and it is preferable to grow them from seed. The species deserves more attention as a garden shrub.

Beautiful specimens of *E. lysistemon* (**Common Coral Tree**) are found near the large gate on the western side of Bourke Garden and also near the Preller Street entrance to the main campus. The

Aan die westekant van die groot hek by Bourketuiri en by die Prellerstraatingang van die hoofkampus staan pragtige eksemplare van *E. lysistemon* (**Gewone Koraalboom**). Die spesifieke epiteton *lysistemon* is afgelei van die Griekse woord wat 'vry meeldraad' beteken. Dit verwys na die enkele meeldraad wat los van die gesplete meeldraadbuis staan. Hierdie soort is meesal van 4 tot 10 m hoog. Gedurende die vroeë lente, meesal voordat die nuwe blare ontplooi, word gewoonlik van twee tot vier lang gesteelde trosse orangerooi tot helderrooi blomtrosse kort agter die groeipunte van die jonger takke gedra. *Erythrina lysistemon* is rypgevoelig, maar kan 'n mate van ryp verdra as dit aan die noorde- of westekant van 'n gebou geplant word.

Erythrina zeyheri (**Ploegbreker**) se spesifieke epiteton vereer Karl Ludwig Zeyher (1799–1858). Van die Suid-Afrikaanse soorte is hierdie die kleinste. Dit besit 'n vlesige ondergrondse knol. Hieruit groei daar aan die begin van die seisoen eenjarige ondergrondse stingels van 0,5 tot 1 m lank waarop trosvormige bloeiwyses en groot driedelig samegestelde blare gedra word. Die blomme is bloedrooi en afhangend.

Die **Suikerbekkies** wat aan die familie Nectariniidae behoort, is gereelde besoekers by **Koraalbome** as hulle blom. Naby hierdie bome word die **Mikstertbyevanger** (*Dicrurus adsimilis*) dikwels opgemerk, veral wanneer hulle op insekte toeslaan.

RUTACEAE

Boegoe-familie

Hierdie familie word deur naastenby 150 genera en omtrent 900 kosmopolitiese spesies verteenwoordig. Die meeste spesies behorende tot hierdie familie kom in warm en gematigde streke voor

epitheet *lysistemon* is afgelei van 'n Griekse woord wat 'vry stamens' beteken en verwys na die enkele stamen, wat staan afsonderlik van die slitslaminaal kolom. Hierdie spesie groei gewoonlik tot 'n hoogte van 4 tot 10 m. In die vroeë lente, gewoonlik voordat die nuwe blare verskyn, verskyn twee tot vier langgesteelde klusters van orangerooi tot helderrooi blomme net agter die groeiende punte van die jonger trosse. *E. lysistemon* is nie vriesbestendig nie, maar kan vries weerstaan as dit geplant word op die noord- of westekant van geboue.

Erythrina zeyheri (**Red Cardinal**) is genoem in eere van Karl Ludwig Zeyher (1799–1858). Hierdie is die kleinste van die Suid-Afrikaanse *Erythrina* spesies en het 'n vlesige ondergrondse knol. Aan die begin van elke seisoen, verskyn epigeae skoots, wat 0,5 tot 1 m lank word en uit die ondergrondse knol groei en dra klusters van groot, drievleuelige, samengestelde blare. Die blomme is helder skarlait en hangend.

Wanneer in blom word die **Koraalboom** gereeld besoek deur **Suikerbekkies** van die Nectariniidae familie, terwyl die **Fork-tailed Drongo** (*Dicrurus adsimilis*) dikwels gesien word soekende insekte naby.

RUTACEAE

Buchu Familie

Hierdie familie bestaan uit ongeveer 150 genera en ongeveer 900 kosmopolitiese spesies, waarvan baie in warm en temperate streke voorkom. Die bome en struike in hierdie familie is dikwels aromaties. Die blare is eenvoudig, teenoewerstaand of wisselstaand. Die blomme is terminaal.

Xanthoxylum capense (= *Fagara capensis*), algemeen bekend as die **Small Knobwood**, groei naby die Nature Trail. Die generiese naam is 'n kombinasie van *xanthos* en *xylon*, die Griekse woorde vir

en verteenwoordig bome en struik wat dikwels aromaties is. Die blare is teenoorstaande of afwisselend en enkelvoudig. Die blomme is eindstandig.

Naby die Wandelpad is *Zanthoxylum capense* (= *Fagara capensis*) waarvan die algemene naam **Kleinperdepram** is. Die genusnaam is 'n samestelling van die Griekse woorde *xanthos* en *xylon* wat respektiewelik geel en hout beteken. Hierdie spesie is besonder goed aangepas in uiteenlopende ekologiese omstandighede. Dit is 'n veelstammige struik wat tot 8 m hoog kan groei. Dit is bladwisselend, en gedurende Oktober tot November verskyn klein trossies geelgroen blommetjies. As die blare gevrywe word, stel dit 'n lemoengeur vry. Vandaar dan ook die ander benaming van Sitrus- of Lemoenfamilie. Die ronde vrug het 'n oranje tot bloedrooi kleur. **Tiptolle, Muisvoëls** en ander vrugtevreter is gereelde besoekers by hierdie struik.

SIMAROUBACEAE

Hemelboom-familie

Ongeveer 30 genera en naastebly 100 kosmopolitiese spesies kom in hierdie familie voor. Hulle word gewoonlik in tropiese of subtropiese gebiede aangetref. Die blare van die bome en struik wat in hierdie familie voorkom, is afwisselend en selde teenoorstandig. Die blomme kom gewoonlik in asstandige blompluime voor.

In Bourketuin groei een van die geslagte wat in hierdie familie aangetref word, naamlik: *Kirkia wilmsii* (**Bergsering**). Die genusnaam vereer Thomas Kirk (1828–1898), terwyl die tweede gedeelte vir Friedrich Wilms (1848–1919) van Duitsland vereer. Hierdie geslag word deur agt spesies verteenwoordig waarvan drie in Suid-Afrika aangetref word.

'yellow' and 'wood'. This species is particularly well adapted to the most diverse ecological conditions. It is a multi-stemmed, deciduous shrub, reaching a maximum height of 8 m. Small sprays of yellow-green flowers appear from October to November. This family is also known as Citrus or Orange family since the leaves, when rubbed, give off an orange fragrance. The round fruit is orange to blood-red. **Bulbuls, Mousebirds** and other fruit-eating birds are regularly observed in the vicinity of this species.

SIMAROUBACEAE

Tree-of-Heaven Family

This family comprises some 30 genera and roughly 100 cosmopolitan species, mainly found in tropical and subtropical regions. The leaves of the trees and shrubs in this family are alternate and rarely opposite. The flowers are usually borne in axillary panicles or racemes.

This family is represented in the Bourke Garden by the genus *Kirkia wilmsii* (**Mountain Seringa**) named after Thomas Kirk (1828–1898). The species honours Friedrich Wilms of Germany (1848–1919). This genus is represented by eight species, of which three are indigenous to South Africa.

The **Mountain Seringa** reaches a maximum height of 10 m. It is a deciduous tree with several trunks, which branch out close above the surface of the soil. The feathery leaves are approximately 15 cm in length. The yellow-green flowers are borne in inflorescences in much-branched, rather compact heads or panicles in the axils of the leaves. This is a fairly hardy species, but in very cold areas it should be protected, particularly against icy winds.

Die **Bergsering** bereik meesal 'n hoogte van 10 m. Dit is 'n bladwisselende en veelstammige boomsoort. Die vertakking geskied van onder af. Die veeragtige blare is ongeveer 15 cm lank. Die geelgroen blommietjies kom in 'n digte bloeiwyse in die oksels voor. Die spesie is redelik gehard, maar moet in baie koue streke teen veral snerpente koue winde beskut word.

AITONIACEAE

Klapperbos-familie

Slegs een geslag en een spesie word in hierdie familie aangetref. Dit kom net in Suid-Afrika voor. Die naam van die struiksoort is *Nymania capensis* = *Aitonia capensis* (**Klapperbos**). Naby die wandelpad staan een. Die tweede gedeelte van die naam verwys na die Kaapprovinsie.

Hierdie mooi inheemse sierstruik kan 'n hoogte van 2 m bereik. Dit is immergroen. Die ballonagtige, ligroos, papieragtige saadpeule hang gewoonlik 'n lang tyd aan die plant. Dit is 'n baie mooi struik wat egter moeilik aanpasbaar is in somerreënvalgebiede. Dit kan egter met 'n redelike mate van sukses in hierdie gebiede aangeplant word mits voorsiening vir goeie dreineringsgemaak word.

Hierdie struik is ook in die volksmond as **Stuipebos** bekend omdat die blare gebruik is by die behandeling van stuipe-aanvalle by kinders.

AITONIACEAE

Chinese Lantern Family

There is only one genus in this family, and only one species is found in South Africa. This species is *Nymania capensis* = *Aitonia capensis* (**Chinese Lantern**), a shrub which may be seen near the Nature Trail. The epithet *capensis* refers to the Cape Province, which is the natural habitat of this species.

The **Chinese Lantern** is an extremely attractive, evergreen, flowering shrub which grows to a height of up to 2 m. The pale pink, balloon-like, papery-thin seed pods usually remain on the plant for a long time. Although this extremely attractive shrub does not readily adapt to summer rainfall and it may be fairly successfully cultivated in these areas if planted in well-drained soil.

Another Afrikaans common name for this shrub is '**Stuipebos**', since in earlier times, the leaves were used to treat attacks of convulsions in children.

MELIACEAE

Mahonie-familie

Hierdie familie word deur ongeveer 50 geslagte en 1 400 spesies verteenwoordig. Dit kom in tropiese en subtropiese streke voor en bestaan uit bome, struik of kleinerige struikies met afwisselende enkelvoudige blare.

In die Broodboomtuin groei *Ekebergia capensis*. Die geslagsnaam vereer Kaptein C.G. Ekeberg (1716–1784). Die algemene naam vir hierdie spesie is **Essenhout**.

Dit is 'n spreidende boom met sterk sytakke. Die groot veervormige, samegestelde blare wissel in grootte, is donkergroen van kleur en aan die bokant effens glansend. Die wit blommetjies in trosse is klein en onopvallend dog baie welriekend. Die donker-rooi vruggies het 'n uiesmaak en word gretig deur voëls gevreet wat veral lief is vir bessievrugte. Veral die **Swartoogtiptol** (*Pycnonotus barbatus*), **Rooiwangmuisvoël** (*Colius indicus*) en die **Gevlekte Muisvoël** (*Colius striatus*) verorber die vruggies gretiglik.

Waar swaar ryp nie voorkom nie, is die **Essenhout** 'n baie goeie keuse as skaduboom. Dit aard die beste in diep en sanderige grond. Dit kan van saad gekweek word of deur middel van stamsteggies vermeerder word.

MELIACEAE

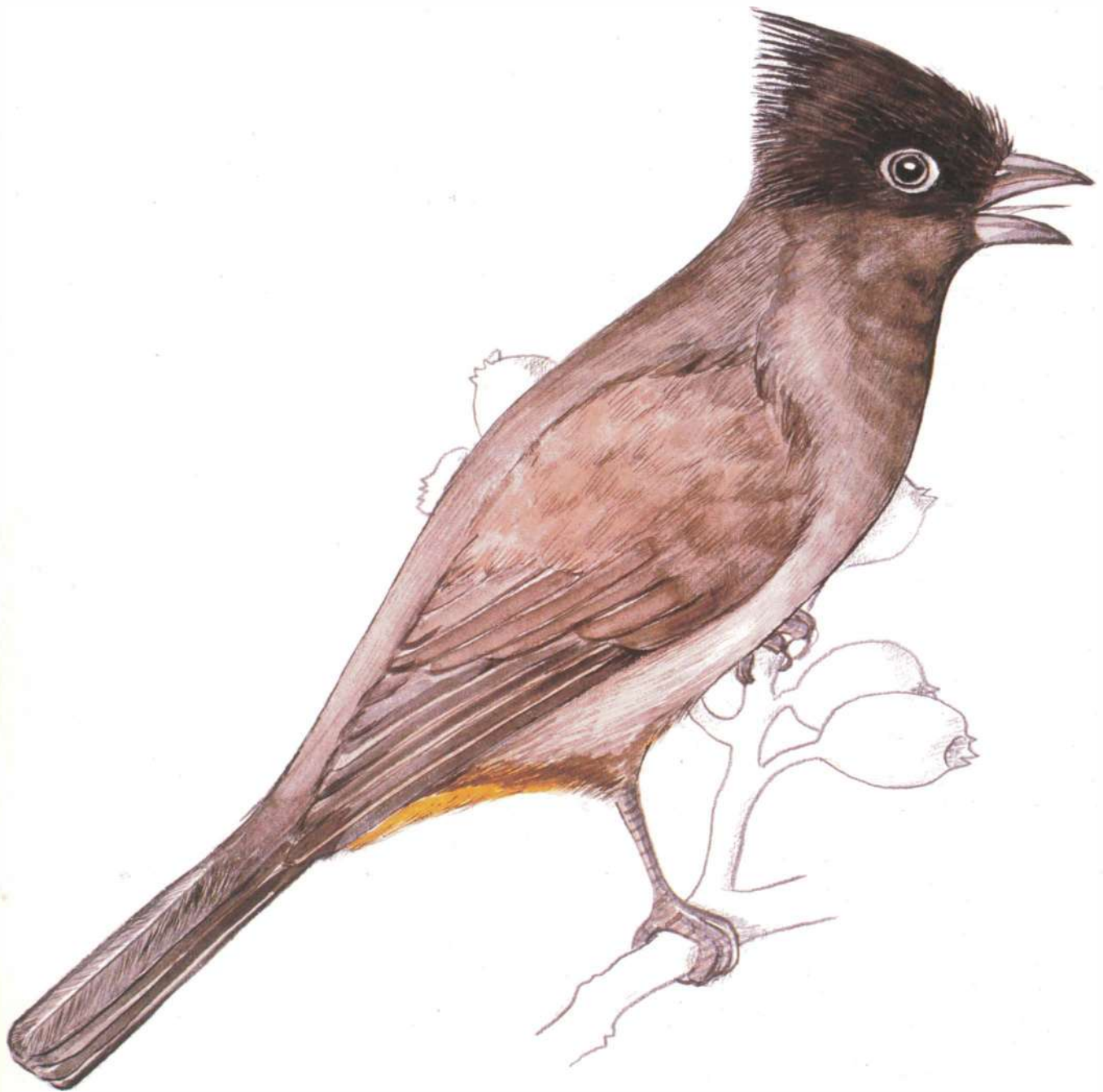
Mahogany Family

This family, comprising some 50 genera and 1 400 species, is found mainly in tropical and subtropical regions. The family consists of trees, shrubs or shrublets with opposite, simple leaves.

Ekebergia capensis, commonly known as the **Cape Ash**, is found in the Cycad Garden. The species is named after Captain C.G. Ekeberg (1716–1784).

This is a spreading tree with strong, lateral branches and large, pinnately compound leaves of varying sizes. The upper leaf surface is dark green and slightly glossy. The tiny white flowers in loose sprays are inconspicuous, but fragrant. The dark red fruit has an onion taste and is eagerly devoured by certain bird species. The **Black-eyed Bulbul** (*Pycnonotus barbatus*), the **Red-faced Mousebird** (*Colius indicus*) and the **Speckled Mousebird** (*Colius striatus*) are particularly fond of these berries.

In areas not prone to heavy frost, the **Cape Ash** is an excellent shade tree. It thrives best in deep, sandy soil and may be propagated from seed or cuttings.



EUPHORBIACEAE

Naboom-familie

Hierdie groot familie bestaan uit meer as 300 geslagte en 5 000 spesies wat hoofsaaklik in tropiese streke voorkom. Die familie kom in 'n byna ongelooflike verskeidenheid van groeivorme voor. Ons tref klein bossies, bome, struik, soorte met veselwortels, knolwortels en met vetplantagtige blare in hierdie familie aan. In Transvaal alleen word ongeveer 30 geslagte aangetref. Die blomme van soorte in hierdie familie is gewoonlik nie baie opvallend nie.

Op Muckleneukrant is twee spesies behorende tot die geslag **Euphorbia** suksesvol aangeplant. Hulle is *E. cooperi* en *E. ingens*. Beide soorte staan in Bourketuin. *Euphorbia cooperi* (**Transvaalse Kandelaarnaboom**) kom wydverspreid in die Republiek van Suid-Afrika voor en word dikwels met *E. ingens* verwar. Dié spesifieke epiteton vereer Thomas Cooper (1815–1913). Dit het 'n regop, kaal stam met 'n dik kroon van blare. Hierdie *Euphorbia*-soort word dikwels in groot tuine aangeplant – veral naby groot bome. Dit is egter rypgevoelig.

Euphorbia ingens is in die algemeen as **Gewone Naboom** bekend. Die tweede gedeelte van die naam beteken 'geweldig groot'. Dit is een van die groot, boomagtige *Euphorbia*-soorte. Hierdie groot boom-*euphorbia* is tuis in die vlaktes en teen rante. Dit groei alleenstaande of in gemeenskappe. Dit kan eweneens in gebiede waar dit nie baie ryp nie, aangeplant word.

EUPHORBIACEAE

Euphorbia Family

This large family is represented by over 300 genera and 5 000 species, found mainly in tropical regions. The species in this family represent an almost unbelievable diversity of shape and size from tiny bushes, trees and shrubs to species with fibrous roots, tuberous roots, and succulent-like, fibrous leaves. Approximately 30 genera are found in the Transvaal. The flowers of species in this family are usually fairly inconspicuous.

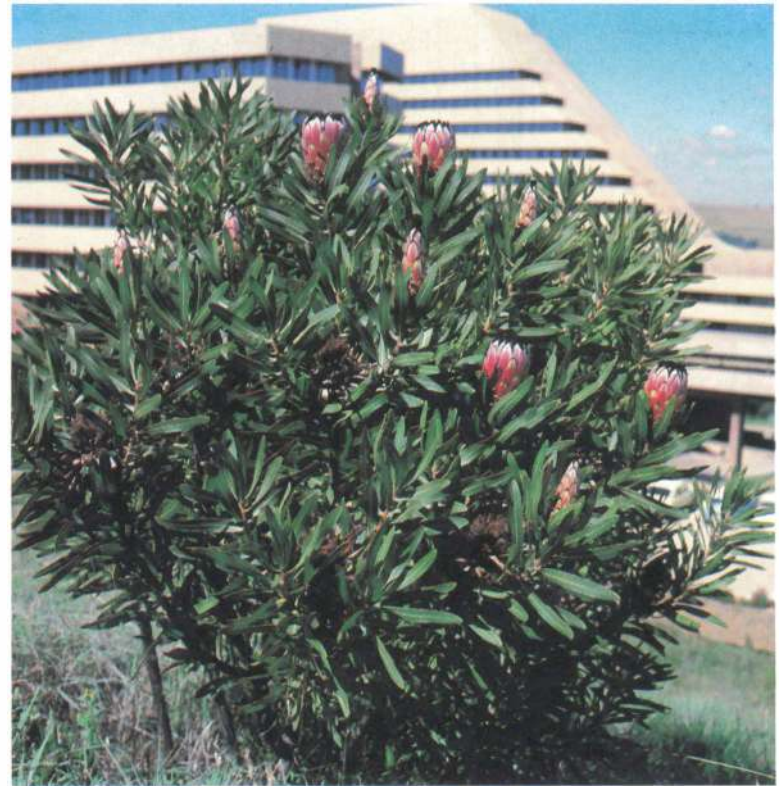
Two species of the genus *Euphorbia* have successfully been established on Muckleneuk Ridge. Both these species, *E. cooperi* and *E. ingens*, may be found in the Bourke Garden. *Euphorbia cooperi* (**Transvaal Candelabra Tree**) is widely distributed throughout the Republic of South Africa, and frequently confused with *E. ingens*. This species is named in honour of Thomas Cooper (1815–1913). The straight, smooth trunk of *E. cooperi* is topped by a crown of dense foliage. This species is frequently found in large gardens, especially near tall trees. It is sensitive to frost.

Euphorbia ingens (**Common Tree Euphorbia**) is one of the large, tree-like *Euphorbia* species. The specific epithet means 'extremely large'. This large tree *Euphorbia* thrives on the plains and hillsides. It occurs singly or in groups. It may be successfully cultivated in areas seldom touched by frost.



Protea neriifolia
(Blousuikerbos – Blue Sugarbush) (p. 54)

Euphorbia ingens
(Gewone Naboom – Common Tree Euphorbia) (p. 80)



ANACARDIACEAE

Mango-familie

Sommige plantkundige geskrifte verwys na hierdie plantgroep as die *Rhus*-familie. In *Die Nasionale Boomlys* (1978) is egter die naam **Mango**-familie aangeteken.

Ongeveer 70 geslagte en 500 kosmopolitiese spesies verteenwoordig hierdie familie. Dit groei hoofsaaklik in tropiese en gematigde streke. In hierdie familie word bome en struik aangetref. Die bas van die plante is dikwels harsagtig. Die blare is gewoonlik afwisselend en enkelvoudig. Die reëlmatige blommetjies is klein en betreklik onopvallend. Die steenvruggies word baie gretiglik deur voëls gevreet.

Hierdie familie sluit **Kareebome** (*Rhus*), die **Maroela** (*Sclerocarya*), en die **Wildepruim** (*Harpephyllum*) en **Harpuisbome** (*Ozoroa*) in.

Enkele soorte behorende tot die geslag *Rhus* word op die hoofkampus aangetref. Meer as 250 soorte van hierdie geslag is reeds bekend waarvan ongeveer 60 in Suid-Afrika aangetref word. In die algemeen word na sommige spesies in hierdie geslag as **Kareebome** en **Taibosse** verwys. Dit word wydverspreid in woude en struikgewas aangetref. Die blare is afwisselend en die klein blommetjies kom in eindstandige blompluime voor. Die vrug is klein en vlesig. Soms kan die vrug ook 'n steenvrug wees. Sekere soorte in hierdie geslag kan as voer vir diere gebruik word.

In Bourketuin staan die bekende **Maroela** (*Sclerocarya caffra*). Die geslagsnaam is 'n samestelling van die Griekse woorde *skleros* en *karya* wat respektiewelik 'hard' en 'okkerneut' beteken. Dit verwys na die vrugte van hierdie boomsoort. Die meeste spesies in hierdie geslag word in Suidelike Afrika aangetref. Die afwisselende blare kom gewoonlik saamgedronge aan die punte van die takke voor. Tot dusver is vyf spesies bekend.

ANACARDIACEAE

Mango Family

Some botanists refer to this group of plants as the *Rhus* family. However, in *The National List of Trees* (1978) it is listed as the Mango family.

This family of trees and shrubs, comprising some 70 genera and 500 cosmopolitan species, is found mainly in tropical and temperate climates. The bark is often resinous and the leaves are usually alternate and simple. The irregular flowers are small and fairly inconspicuous. The stone-fruit or drupes are eaten by birds.

This family includes the **Karree** (*Rhus*), **Marula** (*Sclerocarya*), **Wild Plum** (*Harpephyllum*) and **Resin** (*Ozoroa*) Trees.

A few species of the *Rhus* genus are found on the main campus. Over 250 species of this genus are known, of which some 60 occur in South Africa. Some species of this genus are commonly referred to as **Karree Trees** and **Wild Currents**. They are widely distributed in forests and scrub. The leaves are alternate and the tiny, regular flowers are borne in terminal panicles. The fruit is small and fleshy and in some species it is a drupe. Some species are used as cattle fodder.

The well-known **Marula** (*Sclerocarya caffra*) is found in the Bourke Garden. The generic name is a combination of the words *scleros* and *carya*, which in Greek denotes 'hard' and 'walnut' and refers to the fruit of these trees. Most species of this genus are found in Southern Africa. The alternate leaves are usually coarctate at the tips of the branches. So far, five species are known.

Sclerocarya caffra grows to a height of 12 to 16 m. It is deciduous and has a solitary trunk. The crowns of these trees are usually round and densely foliated. The straight, round trunk usually branches at a height of 2 to 3 m. The leaves are spirally arranged

Sclerocarya caffra kan 'n hoogte van 12 tot 16 m bereik. Dit is bladwisselend en enkelstammig. Die kroon van die meeste bome is rond en digbeblaar. Die reguit, ronde stam vertak gewoonlik op 'n hoogte van 2 tot 3 m. Die blare aan die punte van die takke is spiraalsgewys gerangskik. Die manlike en vroulike blomme kom aan afsonderlike bome voor. Die ronde tot ovaalvormige steenvrug is so groot soos 'n okkerneut en is eetbaar. Die soet reuk van die vrugte is vir sommige mense enigsins walglik.

Hierdie mooi inheemse boomsoort kan in die meeste groot tuine aangeplant word, hoewel dit nie absoluut rypbestand is nie. Dit groei redelik vinnig. Dit is een van die boomsoorte wat in die Republiek van Suid-Afrika wetlike beskerming geniet. Behalwe die voëls wat vrugtevreter is, besoek ape en bobbejane ook die bome wanneer die vrugte ryp word.

Suid van die hoofkampus, in die omstreke van die Watergat by die parkeerterras, en langs die Wandelpad staan enkele voorbeelde van *Rhus lancea* (**Karee**). Die tweede gedeelte van die naam beteken 'spiesvormig'. Hiermee immergroen boomsoort kan 'n hoogte van 4 tot 6 m bereik. Voëlsoorte behorende tot die families Coliidae (**Muisvoëls**) en Pycnonotidae (**Tiptolle**) vreet die saad van *Rhus*-soorte.

Rhus leptodictya (= *R. amerina*) staan as **Bergkaree** bekend. Die spesifieke epiteton het betrekking op die dun, aaragtige blare. Dit is 'n samestelling van die Griekse woorde *lept* wat 'lig' of 'dun' beteken en *dictya* wat na die aaragtigheid, of visnetagtigheid, van die blare verwys. Waar die Wandelpad deur die koppie kronkel, staan enkele **Bergkareebome**. Hulle groei nie baie goed in die harde, klipperige grond waar dit aangeplant is nie. Naby die Watergat groei mooier en beter voorbeelde van hierdie spesie. Hierdie boomsoort het blink, donkergroen, saamgestelde blare. Dit is meesal veelstammig. Dit bereik 'n hoogte van ongeveer 4 tot 5 m.

Rhus pyroides (**Gewone Taaibos**) se tweede gedeelte van die naam verwys na vuur. Langs die Wandelpad staan voorbeelde van hierdie spesie wat eintlik 'n veelstammige struik van ongeveer 3

on the terminal branches. Male and female flowers are borne on separate trees. The round to oval-shaped, walnut-sized stone fruit is edible, although some people find the sweet smell somewhat repulsive.

This decorative indigenous tree may be planted in most large gardens, although it is not completely resistant to frost. It is a fairly fast grower. This tree is a protected species in the Republic of South Africa. When the fruit is ripe, these trees are frequented by various species of fruit-eating birds, while in some areas, they are also visited by monkeys and baboons.

Specimens of *Rhus lancea* (**Karee**) may be found on the parking terrace south of the main campus, in the vicinity of the Water Hole, and along the Nature Trail. The specific epithet of this species means 'spear-shaped'. These evergreen trees reach a height of 4 to 6 m and are frequented by birds of the Coliidae (**Mousebird**) and Pycnonotidae (**Bulbul**) families, who feed on the fruit of these trees.

Rhus leptodictya (= *R. amerina*) is commonly known as the **Mountain Karee**. The specific name is a combination of the Greek word *lept*, meaning 'light', and *dictya*, which refers to the slender, spicuous leaves. A few specimens have been planted on the Ridge beside the Trail, but are not flourishing in the stony soil. More attractive specimens may be found growing near the Water Hole. This species mostly has several trunks and reaches a height of 4 to 5 m. It has dark, glossy, composite leaves.

The specific epithet of *Rhus pyroides* (**Common Wild Currant** or **Fire-thorned Rhus**) refers to fire. The epithet *pyroides* refers to fire. Two specimens may be seen along the Nature Trail. This species is actually a multi-stemmed shrub with composite leaves. It grows to a height of 3 to 5 m and usually branches near the surface of the soil. It often grows along streambanks.

Examples of *Rhus zeyheri* (**Blue Currant**) may be found on the main campus. The leaves of this species are a conspicuously blueish colour. The plant is named after Karl Ludwig Phillip Zey-

tot 5 m met saamgestelde blare is. Die onderste takke hang gewoonlik naby die grondoppervlak. Die boomsoort kom meesal langs waterstrome voor.

Op die hoofkampus word *Rhus zeyheri* (**Bloutaaibos**) aangetref. Die blare is opvallend blouereg van kleur. Die spesifieke epiteton vereer Karl Ludwig Phillip Zeyher (1799–1858) van Duitsland. Die spesie kan in die omstreke van die Wandelpad gesien word. Dit groei selde hoër as 3 m. Hierdie bosagtige struik dra klein groen-geel blommetjies gedurende Oktober. Dit is 'n bekende spesie in die Magaliesberggebied.

Die **Kareebome** en **Taaibosse** is feitlik almal rypbestand. Dit word dikwels in tuine aangewend as skadubome of as sierstruik. Dikwels word dit ook gebruik om onooglike hoekies in die tuin te verberg.

SAPINDACEAE

Lietsjie-familie

Dit is 'n groot familie wat deur ongeveer 127 genera en meer as 1 000 kosmopolitiese spesies verteenwoordig word. Nege geslagte kom in Suid-Afrika voor. Dit word hoofsaaklik in tropiese en subtropiese streke as bome, struik, halfstruik en kruidagtige plante aangetref. Die blare is afwisselend, gewoonlik saamgestel en steunblaarloos. Die blomme verskyn hoofsaaklik in blomtrosse of blompluime.

Een van die verteenwoordigers in hierdie groot familie wat op die hoofkampus van Unisa aangeplant is, is *Dodonaea viscosa* var. *viscosa* (**Gewone Sandolien**). Dit groei aan die suidekant van die gebouekompleks in die nabyheid van die Watergat. Die eerste ge-

her (1799–1858). This species also grows in the vicinity of the Nature Trail. This bushy shrub seldom reaches a height of more than 3 m. It bears tiny, green-yellow flowers during October and is a well-known sight in the Magaliesberg area.

Almost all **Karree** and '**Taaibos**' are resistant to frost. They are popular as shade trees and decorative shrubs and are particularly useful for concealing an unsightly corner in the garden.

SAPINDACEAE

Litchi Family

This large family is represented by approximately 127 genera and over 1 000 cosmopolitan species. Nine genera are found in South Africa. The Litchi family is found mainly in tropical and subtropical regions. This family includes trees, shrubs, undershrubs and herblike plants. The leaves are alternate, usually compound and extipulate. The flowers are mostly borne in racemes or panicles.

One species representing this large family and found on Unisa's main campus, *Dodonaea viscosa* var. *viscosa* (**Common Sand Olive**), grows near the Water Hole to the south of the buildings. The generic name honours the Flemish doctor, Rembert Dodoens, while the specific name means 'sticky'.

Of the 80 known species of the genus *Dodonaea*, only the abovementioned species and one variety, *D. viscosa* var. *angustifolia*, occurs in South Africa. The common name for this variety is **Cape Sand Olive**. Other members of this genus occur mainly in Australia. This evergreen tree has several trunks and narrow, glossy green leaves. The flowers are small and racemose and the winged seeds closely resemble those of the *Combretums*, but have only three wings.

deelte van die naam vereer Rembert Dodoens, 'n Flaamse dokter. Die spesifieke epiteton beteken 'klewerig'.

Van die 80 soorte wat in die geslag *Dodonaea* bekend is, word slegs die **Gewone Sandolien** in Suid-Afrika aangetref, asook een variëteit, naamlik *D. viscosa* var. *angustifolia* (**Kaapse Sando-lien**). Die meeste ander verteenwoordigers word in Australië aangetref. Hierdie immergroen boom is veelstammig. Die blare is smal en glansend groen. Die klein blommetjies kom in blomtrosse voor. Die gevleuelde sade lyk baie soos dié van die *Combretum*-soorte, maar dit het slegs drie vleuels.

Dodonea viscosa var. *viscosa* groei ongeveer 4 tot 6 m hoog. Dit groei nie baie vinnig nie en word selde in tuine aangetref. Dit kan as middelmatige, immergroen skaduboom aangeplant word. Hierdie *Dodonea*-soort is ryp- en droogtebestand.

GREYIACEAE

Baakhout-familie

In 1850 het Engler die Melianthaceae die status van 'n afsonderlike familie gegee, bestaande uit die drie geslagte *Melanthus*, *Bersama* en *Greyia*. Dyer (1975) het die geslag *Greyia* in die familie Greyiaceae ingedeel. Hierdie familie bestaan uit groterige en kleinerige bome waarvan die hout opvallend sag is. Die blare is afwisselend en enkelvoudig. Die reëlmatige blomme wat in blomtrosse voorkom, is tweeslagtig. Die familie bestaan uit een geslag en drie spesies wat slegs in die Republiek van Suid-Afrika voorkom.

Naby die Droë Sloot by die Prellerstraatingang staan *Greyia sutherlandii* (**Natalse Baakhout**). In die nabyheid van die laboratoria staan ook enkele voorbeelde. Hierdie geslag is endemies en

Dodonaea viscosa var. *viscosa* reaches a height of some 4 to 6 m. It is not a fast grower and is rarely found in gardens, although it is useful as a moderately large, evergreen shade tree. This species is frost and drought-resistant.

GREYIACEAE

Wild Bottlebrush Family

In 1850, Engler classified the Melianthaceae as a separate family consisting of the genera *Melanthus*, *Bersama* and *Greyia*. Dyer (1975) classifies the genus *Greyia* as belonging to the Greyiaceae. This is a family of remarkably soft-wooded large and small trees. The leaves are alternate and simple, the flowers are bisexual, regular and racemose. The family consists of one genus and three species, all of which occur only in the Republic of South Africa.

Greyia sutherlandii (**Natal Bottlebrush**) grows near the Dry Ditch at the Preller Street entrance, while a few specimens are also found near the laboratory. The genus is endemic and is named after Sir George Grey, while the specific name honours Peter Cormac Sutherland (1822–1900), formerly of Edinburgh, Scotland. This species is found in the Transvaal, Natal and the Orange Free State, mainly on the Drakensburg.

This very decorative shrub bears crimson flowers in large racemes before the large, green leaves appear in the early spring. It reaches a height of some 3 m and in its natural habitat in Northern Natal, the author has seen specimens of up to 5 m. It is a hardy shrub and will thrive almost anywhere in the Republic of South Africa and has the added advantage of being fairly resistant to drought. It is very readily propagated from seed or cuttings.

vereer Sir George Grey. Die spesifieke naam vereer Peter Cormac Sutherland (1822–1900), vroeër van Edinburgh, Skotland. Dit kom in Transvaal, Natal en die Vrystaat voor. Dit word meesal op die Drakensberge aangetref.

Voordat die groot, gladde blare in die vroeë lente uitkom, dra hierdie mooi struik pragtige bloedrooi blomme in groot blomtrosse. Dié sierstruik kan tot 3 m hoog groei. In sy habitat het die skrywer eksemplare van tot 5 m in Noord-Natal gesien. Dit is 'n geïerde struik wat feitlik oral in die Republiek van Suid-Afrika goed aard. Verder het dit ook dié voordeel dat dit redelik droogtebestand is. Dit kan baie maklik van saad of steggies gekweek word.

RHAMNACEAE

Blinkblaar-familie

In hierdie familie tref ons bome en struie aan wat regop of klimmend groei. Dikwels is hulle met dorings bewapen. Die blare is afwisselend en soms teenoorstaande. Die klein tweeslagtige blommetjies kom in byskerms, skerms, are en blomhofies voor. In hierdie familie is daar tot op hede 58 geslagte en 900 spesies bekend. Hierdie soorte is kosmopolities en kom in tropiese en subtropiese lande voor.

Naby die Watergat groei *Ziziphus mucronata* (**Blinkblaar-wag-'n-bietjie**). Die generiese naam kom van *zizouf*, die Arabiese naam vir *Ziziphus*-lotus. *Lotos* is die Griekse naam vir 'n verskeidenheid plantsoorte soos onder meer klawer.

Hierdie boomsoort kom wydverspreid in die Republiek van Suid-Afrika voor. Dit is 'n middelmatige boomsoort wat tot 9 m hoog kan groei. Dit is bladwisselend en met dorings bewapen, welke kenmerk tot die volksnaam aanleiding gegee het. Meesal het

RHAMNACEAE

Dogwood Family

This is a family of erect or scandent trees and shrubs, which are often spiny. The leaves are alternate and sometimes opposite, while the tiny, bisexual flowers are arranged in cymes, umbels, spikes or heads. This cosmopolitan family is at present represented by 58 known genera and 900 species, occurring mainly in tropical and sub-tropical regions.

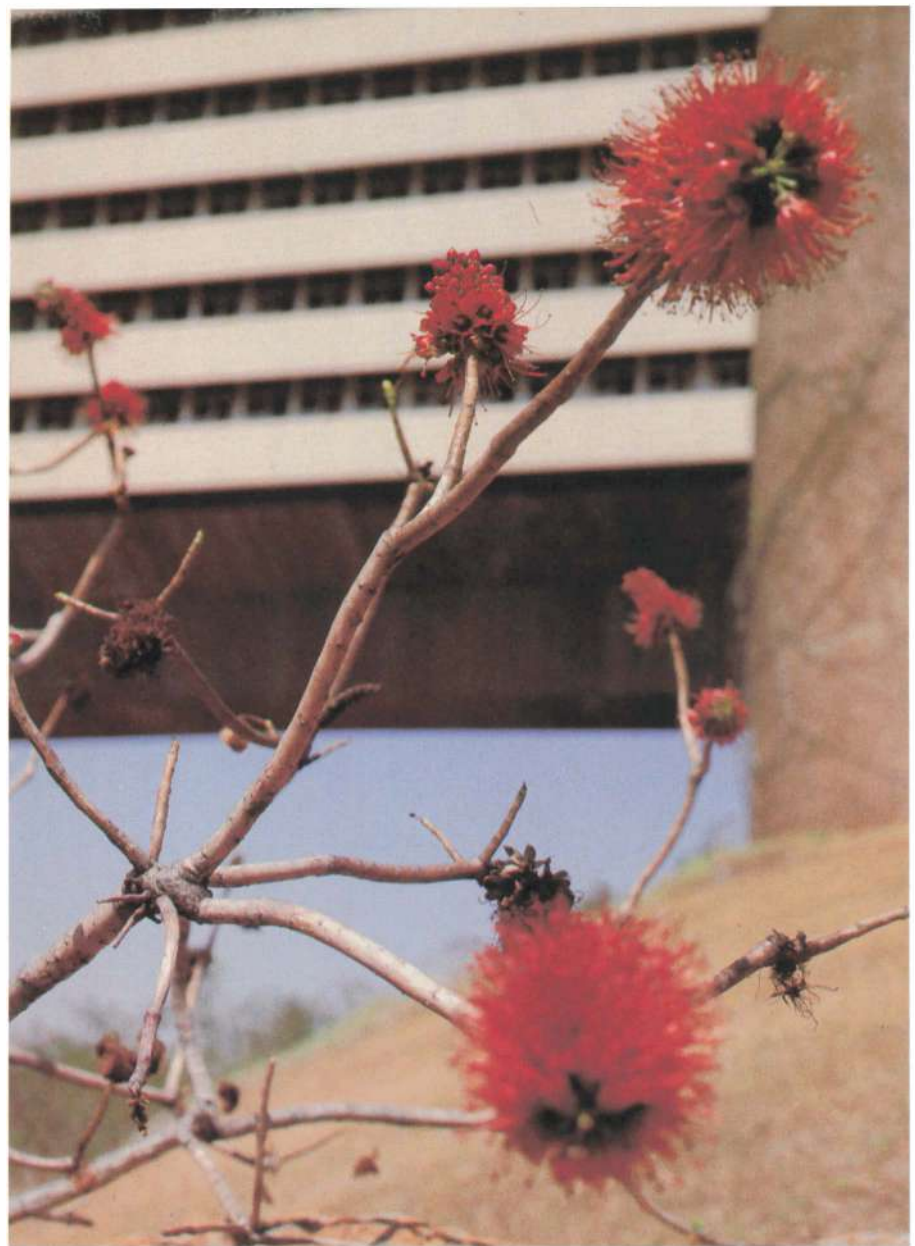
The **Buffalo-thorn** (*Ziziphus mucronata*) may be found growing near the Water Hole. The generic name refers to *zizouf*, the Arabic name for the *Ziziphus* lotus, while *lotos* is the Greek name for a large variety of plants such as clover.

The **Buffalo-thorn** is widely distributed throughout the Republic of South Africa. It is a moderately tall tree, which reaches a maximum height of 9 m. It is deciduous and armed with spikes or thorns, a feature which gave rise to its common name. This species usually has a fairly short trunk and remarkably tangled crown. The small, inconspicuous, cream-coloured flowers are borne in cymes during the summer months. The red-brown, round fruit ripens in January and looks extremely attractive against the background of glossy, green leaves. The fruit is edible and **Bulbuls**, **Mousebirds** and other bird species are frequently observed near these trees.

This adaptable species will do well in most gardens. It is a fairly fast grower and certainly worth planting. The fruit usually attracts numerous bird species to the garden.

Greyia sutherlandia
(Natale Baakhout — Natal Bottlebrush) (p. 85)

Ziziphus mucronata
(Blinkblaar-wag'n-bietjie — Buffalo-thorn) (p. 86)



die bome korterige stamme en 'n opmerklike deurmekaar vertakte kroon. Gedurende die somermaande dra dit klein trossies onopvallende, roomkleurige blommetjies. Die rooibruin, ronde vrugte word in Januarie ryp en vertoon mooi tussen die glansende groen blare. Die vrugte is eetbaar en waar hierdie soort groei, kan onder andere **Tiptolle** en **Muisvoëls** dikwels in die nabyheid opgemerk word.

Hierdie aanpasbare spesie sal in die meeste tuine goed aard. Dit groei taamlik vinnig en verdien 'n plek in ons Suid-Afrikaanse tuine. Die vrugte lok meesal 'n verskeidenheid voëlsoorte na die tuin.

MYRTACEAE

Mirte-familie (Deel I) (Heteropyxidaceae)

Hierdie groot familie sluit *Mirte*-, *Koejawel*- en *Bloekomsoorte* in. In hierdie familie kom bome en struik, maar selde meerjarige plante of halfstruik voor. Die blare is teenoorstaande en selde afwisselend. Tot op hede is 100 geslagte en 3 000 spesies bekend. Die meeste soorte word in Amerika en Australië aangetref.

Slegs vier geslagte wat deur 20 spesies verteenwoordig word, is inheems in Suid-Afrika. By die Droë Sloot staan *Heteropyxis natalensis* (**Laventelboom**). Die geslagsnaam kom van *hetero* wat 'verskeie' en *pyxis* wat 'n klein houtdosie' op Grieks beteken. *Natalensis* verwys na Natal. Slegs drie spesies van hierdie geslag is tot dusver bekend. Twee soorte kom in Transvaal, Swaziland en Natal voor. Die derde groei êrens in Afrika.

Die welriekende blare van hierdie spesie het tot die algemene naam aanleiding gegee. Hierdie struikagtige boomsoort kan tot 8 m. hoog groei. Die blare is lank en dun en gee 'n kamferagtige

MYRTACEAE

Myrtle Family (Part 1) (Heteropyxidaceae)

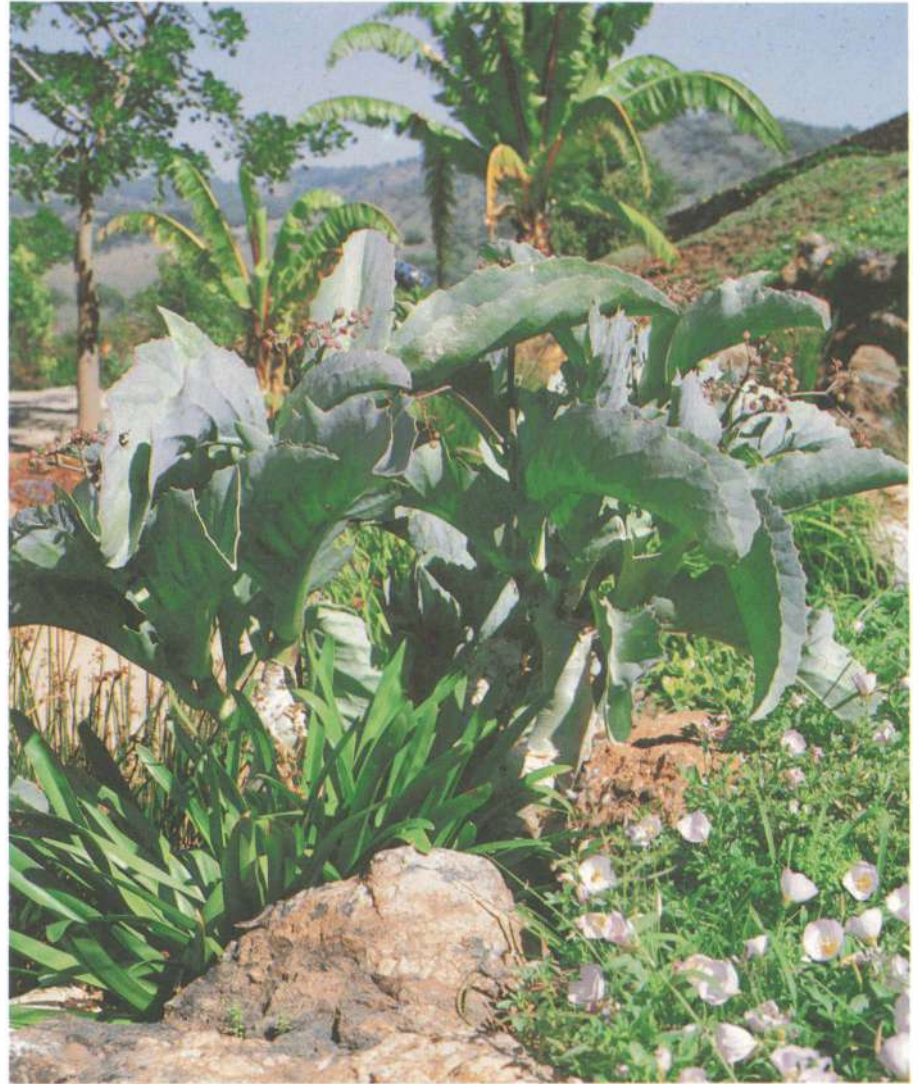
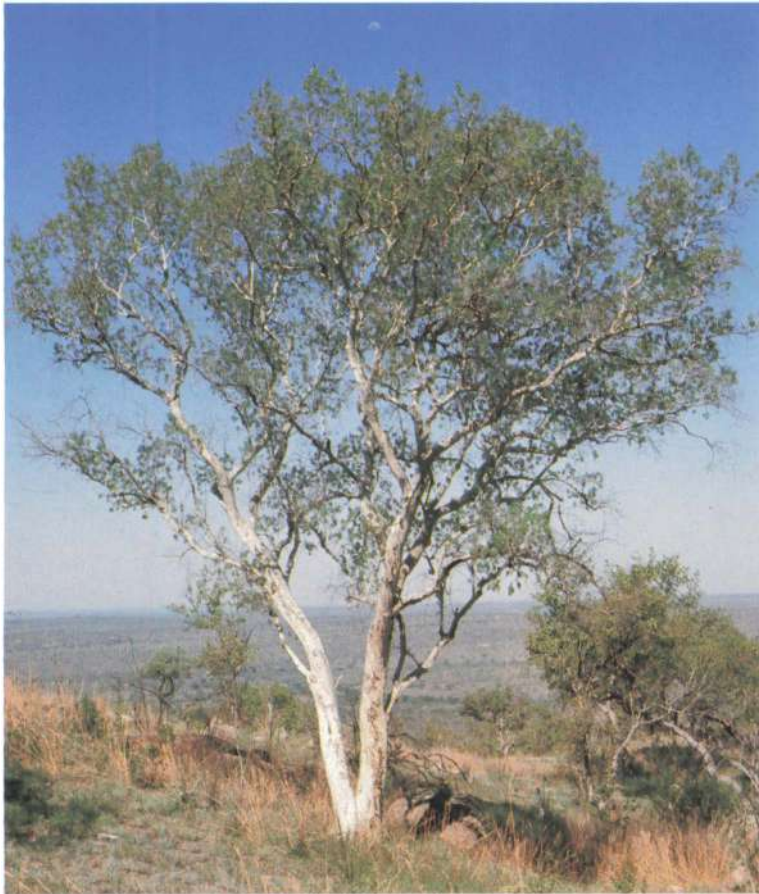
This family includes *Myrtle*, *Guava* and *Blue Gum* species and consists of trees and shrubs, but rarely perennials or undershrubs. The leaves are opposite and seldom alternate. To date, 100 genera and 3 000 species have been identified. Most species occur in America and Australia.

Only four genera, represented by 20 species, are indigenous to South Africa. *Heteropyxis natalensis* (**Lavender Tree**) has been established near the Dry Ditch. The prefix *hetero* denotes 'various', while *natalensis* refers to Natal. At present only three species of this genus are known, of which two are found in the Transvaal, Swaziland and Natal, while the third species is found elsewhere in Africa.

The fragrant leaves of this tree gave rise to its common name. This shrublike tree reaches a maximum height of 8 m. The long, slender leaves emit a camphor-like odour when crushed. The grey-white trunk is smooth and twisted. During the early summer, small flowers are borne in terminal panicles. The fruit is very small. This species is a slow grower and not resistant to heavy frost. It may readily be propagated from seed.

Cyphostemma juttae
(Basterkobas – Bastard Cobas) (p. 90)

Heteropyxis natalensis
(Laventelboom – Lavender Tree) (p. 88)



reuk af wanneer dit gekneus word. Die gedraaide, gryswit stam is glad. Aan die punte van die takke kom klein blommetjies in trosse gedurende die vroeë somer te voorskyn. Die vruggies is besonder klein. Die soort kan baie maklik van saad gekweek word. Dit is 'n stadige groeier en nie teen strawwe ryp bestand nie.

VITACEAE

Druife-familie

Die bekendste lid van hierdie familie is die druif wat oral in die wêreld verbou word. *Vitus* beteken 'druwestok'. In hierdie familie word bome, struike, dikwels vetplante en klimplante aangetref. Sover is reeds 12 geslagte en meer as 200 spesies bekend. Hulle is kosmopolities en groei veral in tropiese en gematigde streke.

In die omgewing van die Watertuin is *Cyphostemma juttae* aangeplant. Die Griekse woord *kyphos* beteken 'krom' of 'boggelrig'. *Stemma* kom van die Griekse woord *stefein* wat 'om te kroon' beteken. Die tweede gedeelte van die naam vereer mev. Jutta Dinter. Volksname vir hierdie soort is **Basterkobas**, **Botterboom** en **Nooiensbeen**.

Die stam van hierdie vetplantsoort kan 'n hoogte van 1,75 m bereik. Die aanwesigheid van loshangende, papieragtige basstroke aan die geelgroen stamme van volwasse plante is baie tiperend. Teen die einde van die somermaande vertoon die trosse wynkleurige bessievrugte pragtig in die tuin. Voëls wat bessie- of vrugtevreter is, besoek die struike gereeld. Hierdie plante kan van saad en steggies voortgeplant word. Hulle is nie heeltemal teen strawwe ryp bestand nie en aard die beste in leem- of sanderige grond.

VITACEAE

Grape Family

The best-known member of this family is the ubiquitous grape, which is universally cultivated. *Vitus* means 'grapevine'. This family is represented by trees and shrubs, often succulent and often scandent. At present 12 genera and over 200 species are known. This cosmopolitan family is found mainly in tropical and temperate regions.

Cyphostemma juttae (**Bastard Cobas**) is found in the vicinity of the Water Garden. The Greek word *cyphos* means 'curved' or 'crooked', and *stemma* is derived from the Greek word *stefein*, which means 'to crown'. The species is named in honour of Mrs Jutta Dinter.

The stem of this succulent plant reaches a maximum height of 1,75 m. Loose-hanging, paper-like strips of bark clinging to the yellow-green stem is typical of the adult plant. Towards the end of summer, the clusters of burgundy-coloured berries make a beautiful show in the garden. Fruit and berry-eating bird species are regularly seen near these shrubs. These plants may be propagated from seed or cuttings. They are slightly sensitive to frost and thrive in loamy or sandy soil.

TILIACEAE

Linde-familie

Hierdie familie word deur ongeveer 50 geslagte en 450 kosmopolitiese soorte verteenwoordig. Die meeste soorte kom in die trope voor. In die noordelike halfmond is die **Lindebome** uit die geslag *Tilia* die bekendste lede van hierdie familie. Verteenwoordigers van hierdie familie bestaan uit bome en struike. Die blare is afwisselend en steunblaardraend. Die reëlmatige, gewoonlik vyfdelige blomme het talryke meeldrade.

Die geslag *Grewia* is in Suid-Afrika baie goed bekend. Ongeveer 23 van die totale 150 spesies wat bekend is, kom wydverspreid in Suid-Afrika voor.

Naby die Watergat staan 'n paar eksemplare van die **Kruisbessie** (*Grewia occidentalis*). Die vrug is gewoonlik vierlobbig, wat tot die volksnaam aanleiding gegee het. Die geslagsnaam vereer Nehemiah Grew (1641–1712), 'n Engelse plantkundige van die sewentiende eeu, terwyl die spesifieke epiteton 'van die Weste' beteken.

Dit is eintlik 'n klimmende struik wat ongeveer 4 tot 5 m hoog groei. Die dun blare is feitlik kaal, maar die kelkblare en blomstiele is met sterhare beklee. Die ligpers of rooskleurige blomme het 'n deursnee van ongeveer 3 cm. Die vrugte van die geslag *Grewia* is eetbaar. Sekere voël- en wildsboksoorte is besonder lief vir die vrugte. Dit groei nie baie vinnig nie en is ook nie geskik vir aanplanting op die koue hoëveld nie.

TILIACEAE

Linden Family

This family of some 50 genera and 450 cosmopolitan species is found mostly in the tropics. The best-known members of this family are the **Linden Trees** of the genus *Tilia*, which occur in the northern hemisphere. This family consists of trees and shrubs. The leaves are alternate and stipulate. The flowers are regular, usually quinquepartite, and have numerous stamens.

The genus *Grewia* is very well-known in South Africa and about 23 of the 150 known species are widely distributed throughout this country. A few specimens of the **Cross-berry** (*Grewia occidentalis*) may be seen near the Water Hole. The fruit is usually 4-lobed and may have given rise to the common name. The genus is named in honour of Nehemiah Grew (1641–1712), an English botanist, while the specific name signifies that it is occidental, or 'from the west'.

This species is actually a scandent shrub, which reaches a height of 4 to 5 m. The leaves are almost totally hairless, but the sepals and pedicels are covered in stellate hairs. The pale mauve to pink flowers are about 3 cm in diameter. The fruit of the *Grewia* is edible and much favoured by some bird and game species. It is not a fast grower and will not adapt to the cold Highveld climate.

STERCULIACEAE

Sterkastaiing-familie

In hierdie familie word ongeveer 60 geslagte en 700 soorte aangetref. Die meeste soorte is kosmopolities en kom hoofsaaklik in tropiese en subtropiese streke voor. Een van die bekendste lede van hierdie familie is die **Kakaoboorn** (*Theobroma cacao*) uit Suid-Amerika wat vir kakaoproduksie gebruik word. Binne hierdie familie is daar weinig eenvormigheid van plant en blom, en bome, struik, struikgewasse en kruide kom voor. Van die ses geslagte wat in Suid-Afrika gevind word, is *Sterculia* en *Dombeya* die bekendste.

Dombeya rotundifolia var. *rotundifolia* groei op verskillende plekke op die hoofkampus. In Bourketuin en by die Prellerstraating staan mooi voorbeelde van hierdie spesie wat algemeen as **Gewone Drolpeer** bekend is. Die genusnaam vereer Joseph Dombey (1742–1794), 'n Franse plantkundige wat baie in Suid-Amerika rondgereis het. Die spesifieke naam kom van die Latynse woorde *rotundus* en *folium* wat respektiewelik 'rond' en 'blaar' beteken. Dit het betrekking op die sirkelvormige blare.

Dit is een van die eerste soorte wat in die lente blom. Gewoonlik is hierdie bladwisselende soort oorlaai met massas wit blomme. Dit kan tot 8 m hoog groei. Die stam is dikwels krom en baie kort. Gedurende die vroeë lente wanneer die bome met wit skerpriekende blomme getooi is, lok dit baie insekiesoorte.

In die nabyheid van die bome kan daar dan ook sekere voëlsoorte opgemerk word wat op insekte jagmaak, soos onder meer **Mikstertbyevanger** (*Dicrurus adsimilis*), **Swartsuikerbekkie** (*Nectarinia amethystina*), **Paradysvlieëvanger** (*Terpsiphone viridis*) en **Kuifkophoutkapper** (*Trachyphonus vaillantii*).

Hierdie spesie met sy pragtige, peerboomagtige, wit blomme

STERCULIACEAE

Star-chestnut Family

This family is represented by some 60 genera and 700 species. Most of these cosmopolitan species are found in tropical and subtropical regions. One of the most widely known is the **Cocoa Tree** (*Theobroma cacao*) of South America, from which cocoa is produced. Considerable variations in shape and size are found among the plants and flowers in this family consisting of trees, shrubs, undershrubs and herbs. Only six genera occur in South Africa, of which the most widely known are *Sterculia* and *Dombeya*.

Dombeya rotundifolia var. *rotundifolia* is well represented on the main campus. Very good specimens of this tree, commonly known as the **Common Wild Pear**, are found in the Bourke Garden and near the Preller Street entrance. The genus is named after the French botanist Joseph Dombey (1742–1794), who travelled extensively in South America. The specific name is derived from the Latin *rotundus* and *folium*, meaning 'round' and 'leaf', which refer to the round leaves of this species.

This deciduous tree is one of the first to flower in spring, when it is usually covered in masses of white flowers. This tree reaches a maximum height of some 8 m and has a very short and often crooked trunk. In the early spring the sharp-scented flowers attract a variety of insects which in turn attract numerous birds.

Insect-eating birds which are frequently observed near these trees in spring, include the **Fork-tailed Drongo** (*Dicrurus adsimilis*), the **Black Sunbird** (*Nectarinia amethystina*), the **Paradise Flycatcher** (*Terpsiphone viridis*) and the **Crested Barbet** (*Trachyphonus vaillantii*).

This tree, with its abundance of delicate, pear-like, white flow-



Dombeya rotundifolia var. *rotundifolia*
(Gewone Drolpeer: bloeiwyse –
Common Wild Pear: inflorescence) (p. 92)



Sterculia murex
(Laeveldkastaiing – Lowveld Chestnut) (p. 94)

kan suksesvol van saad gekweek word. Dit kan redelik strawwe ryp verduur.

Sterculia murex (**Laeveldkastaiing**) is 'n bladwisselende boomsoort wat in Bourketuin aangeplant is. *Sterculius* was die mitiese 'god van bemesting'. *Stercus* in Latyn beteken 'mis', 'ekskrement'. Die blare en vrugte van sekere soorte is baie onwelriekend. *Murex* is die Latynse naam vir 'n perskleurige skulpvissoort en het betrekking op die stekelrige buitenste gedeelte van die vrug.

Hierdie spesie kan 10 tot 12 m hoog groei. Die donkergroen blare is handvormig in vyf tot sewe dun blaartjies verdeel. In die lente kom gelerige blomme met bruin of rooi spikkels uit. Dit kom gewoonlik vóór die handvormig verdeelde blare uit. Die spesie kan van saad gekweek word. Sade ontkiem egter baie sporadies. Dit is nie teen ryp bestand nie. Gewoonlik groei dit redelik vinnig. *Sterculia murex* het baie dekoratiewe kwaliteite en kan suksesvol in warmer streke aangeplant word.

OCHNACEAE

Rooihout-familie

Ongeveer 40 geslagte en 600 spesies is tot dusver in hierdie familie bekend. Dit is 'n redelik kosmopolitiese familie met verteenwoordigers in tropiese en subtropiese streke. In hierdie familie kry ons bome en struie. Die familienaam het betrekking op die ooreenkoms van die jong lenteblaartjies met dié van 'n wildepeer, deur die Grieke *ochne* genoem. Talryke spesies van hierdie familie word in Brasilië aangetref. Net twee geslagte kom in Suid-Afrika voor waarvan die geslag *Ochna* (**Rooihoutbome**), met ongeveer tien spesies, die bekendste is.

Langs die Wandelpad en in Bourketuin staan enkele voorbeelde

ers, can withstand fairly sharp frost and is easily propagated from seed.

Sterculia murex (**Lowveld Chestnut**) is another deciduous tree found in the Bourke Garden. Presumably because of the distinctly unpleasant odour of the leaves and fruit of some species, this genus is named after the Latin god Sterculius who presided over manuring. *Stercus* means 'excrement' in Latin. *Murex* is the Latin name of a mauveish shellfish and refers to the rigid prickles on the fruit of this species.

The *Lowveld chestnut* reaches a height of 10 to 12 m. The oliveous leaves are divided into five to seven slender, fingerlike leaves. The yellowish flowers with brown or red spots are produced in spring, usually before the digitally compound leaves. This species may be propagated from seed which, however, germinates very sporadically. It is a fairly fast grower, but not resistant to frost. This extremely decorative tree may be planted to great advantage in warmer regions.

OCHNACEAE

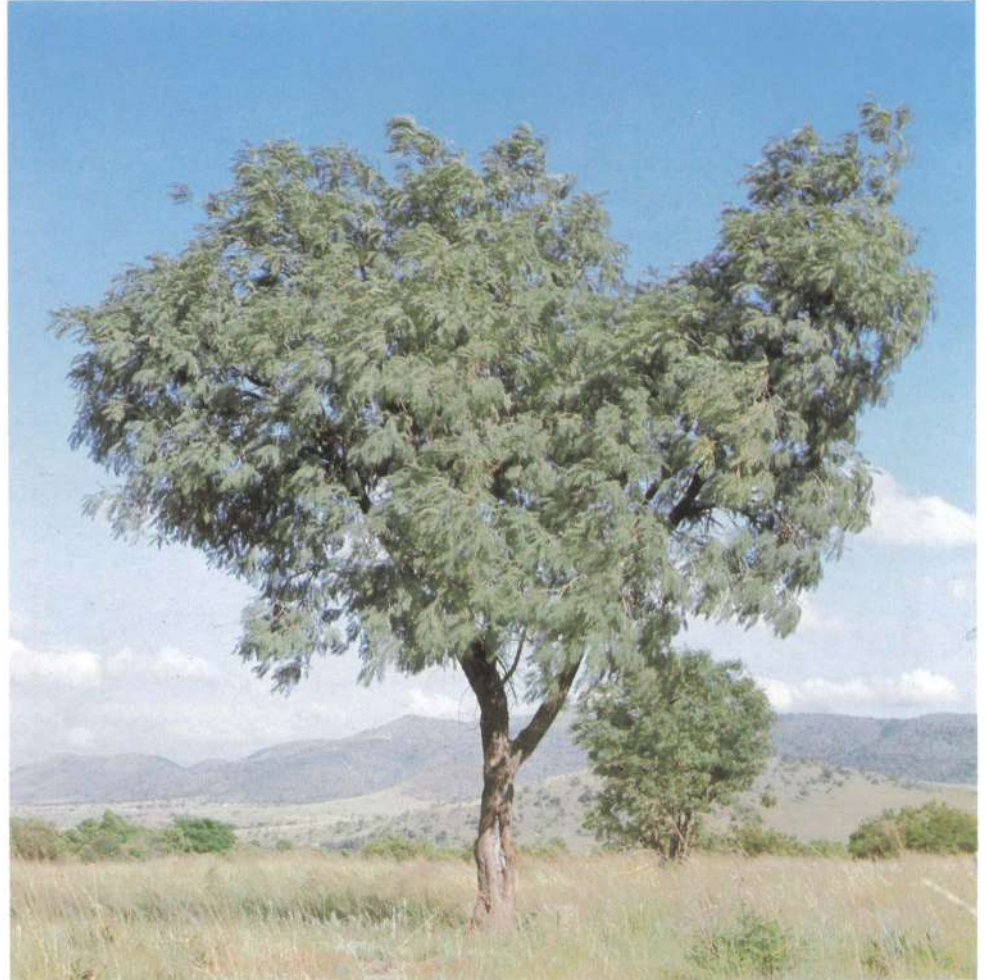
Wild Plane Family

Some 40 genera and 600 species of this family have so far been identified. This more or less cosmopolitan family of trees and shrubs is found in tropical and subtropical regions. The name Ochnaceae refers to the similarity between the young leaves in spring of species in this family and those of the wild pear tree, known as *ochne* in Greek. Numerous species are native to Brazil, while only two genera are found in South Africa. Of the two in-



Blare, peule — Leaves, pods

Acacia caffra
(Gewone Haakdoring — Common Hook-thorn) (pp. 57, 58)



van *Ochna pulchra* (**Lekkerbreek**). Die spesifieke naam *pulchra* beteken 'mooi'. Die takke van hierdie struik of boompie breek baie maklik af. Dit bereik 'n hoogte van ongeveer 6 tot 8 m. In die lente, as die jong blaartjies uitkom, toon dit 'n fris sitroengeel tot bronskleur. Die digte blomtrosse is helderrooi. Hulle buig terug en stel daarmee die verhewe skarlaken blombodem met die jaspis-groen en swart niervormige vruggies bloot. Hierdie boomsoort verplant baie moeilik, is nie rypbestand nie en groei baie stadig. Dit is 'n mooi sierplant vir warmer dele. Voorsiening vir goeie dreinerings is essensieel.

CLUSIACEAE (= GUTTIFERAE)

Geelmelkhout-familie

Beide bogenoemde familienaam word deur plantkundiges erken. Lede van hierdie familie is gewoonlik kruid en struik, en soms ook boom. Tot dusver is 40 geslagte en 100 soorte bekend wat wydverspreid voorkom. Dit groei in tropiese en gematigde streke. In Suid-Afrika is twee geslagte bekend, naamlik *Hypericum* en *Garcinia*. Uit eersgenoemde geslag word guttegom verkry. Dit is rooiagtige geel, harde, blink gomhars wat egter heldergeel is by verpoeiing en wat met water 'n kolloïdale oplossing vorm. Dit word gebruik as geel skilderpigment, en medisinale as purgeermiddel.

Aan die noordekant van die laboratorium is *Hypericum revolutum* (**Kerriebos**) aangeplant. Die spesifieke naam het betrekking op die omgerolde rande van die onderste deel van die blaar. Dit kom algemeen in Transvaal voor. Eintlik kan dit as 'n bosagtige struik bestempel word. Dit groei selde hoër as 3 tot 4 m. Die kerriegeur van die struik is welbekend.

indigenous genera, the genus *Ochna* (**Wild Plane Trees**), which is divided into some ten species, is the most widely known.

Examples of the *Ochna pulchra* may be found along the Nature Trail and in the Bourke Garden. The word *pulchra* means 'beautiful'. This tree is commonly known as the **Peeling Plane**. The Afrikaans common name for this species is '**Lekkerbreek**', since the branches and twigs break very readily. It reaches a height of some 6 to 8 m and in spring, when the new leaves appear, the tree turns a beautiful pale lemon to bronze colour. The bright red flowers are borne in dense clusters and are slightly recurved, revealing the thickened, scarlet torus and small jade-green and black, kidney-shaped fruit. This species is a very slow grower and does not transplant easily. It is sensitive to frost. This decorative tree will thrive in warmer regions, provided that it is cultivated in well-drained soil.

CLUSIACEAE (= GUTTIFERAE)

Mangosteen Family

Both these family names are recognised by botanists. The family consists of herbs and shrubs, and sometimes trees. So far, 40 genera and 1 000 species have been identified, all of which are widely distributed in tropical and temperate regions. The two genera occurring in South Africa are *Hypericum* and *Garcinia*. A hard, shiny, reddish-yellow, resinous gum is produced from the genus *Hypericum*. In powdered form it is bright yellow and forms a colloidal solution when mixed with water. It is used by artists as a yellow pigment and medicinally as a purgative.

Hypericum revolutum (**Curry Bush**) grows on the northern side of the laboratory. The specific epithet refers to the revolute mar-

Hierdie digbeblaarde spesie is redelik ryp bestand. Dit vertoon baie mooi in die tuin en dit groei taamlik vinnig. Na elke winter moet dit drasties teruggesnoei word.

FLACOURTIACEAE

Wildeperske-familie

Hierdie familie bestaan uit 93 geslagte en 1 000 spesies. Ongeveer 14 geslagte en 24 spesies word in die Republiek van Suid-Afrika aangetref. Dit is 'n kosmopolitiese familie wat in tropiese en subtropiese streke groei. Struik en bome in hierdie groot familie is of doringrig of ongewapen. Sommiges dra eetbare vrugte. Die familienaam, asook die geslag *Flacourtia*, vereer Etienne Flacourt, 'n eertydse goewerneur van die Malgassiese Republiek.

'n Baie bekende lid van hierdie familie is *Dovyalis caffra* (**Kei-appel**). Dertig spesies van hierdie geslag is reeds bekend waarvan sewe in die Republiek van Suid-Afrika voorkom. In Bourketuin en by die parkeervlak, aan die suidekant van die hoofgebou, staan enkele eksemplare wat aangeplant is. Die herkoms van die geslagsnaam is tot dusver nog onbekend.

Dit word hoofsaaklik as heiningplant aangewend en kan tot 3 m hoog groei. Dit het donkergroen, blink blare wat gaafrandig is. Die klein, geel blommetjies is baie onopvallend. Die helderliggeel vrugte is baie opvallend en daarby ook nog eetbaar; dit maak 'n heerlike konfyt. Die vrug is omtrent so groot soos 'n **Maroela**. *Dovyalis caffra* is 'n nuttige heining- of sierstruik. Dit is egter nie teen strawwe ryp bestand nie.

gins on the lower leaf surface. This species is widely distributed throughout the Transvaal and may be described as a bushy shrub which rarely reaches a height of more than 3 or 4 m. The sharp, curry odour of this species is well-known.

This dense shrub can withstand light frost, is a fast grower and is a very attractive garden shrub. It should be pruned very drastically at the end of the winter.

FLACOURTIACEAE

Wild Peach Family

This family is represented by 93 genera and 1 000 species, of which some 14 genera and 24 species are found in the Republic of South Africa. It is a cosmopolitan family which occurs in tropical and subtropical regions. Some shrubs and trees of this family are armed with thorns or spines, and the fruit of some species is edible. The family name as well as the genus, *Flacourtia*, is named in honour of Etienne Flacourt, a former governor of the Malagasy Republic.

The **Kei-apple** (*Dovyalis caffra*) is a very well-known member of this family. Of the 30 known species, seven are found in the Republic of South Africa. A number of these trees have been established in the Bourke Garden and also near the parking area to the south of the Main Buildings. The origin of the generic name is unknown.

This species, which reaches a height of up to 3 m, is used mainly as a hedge-plant. It has glossy, glabrous, entire leaves and inconspicuous, yellow flowers. The bright yellow fruit is extremely attractive and also edible, and may be used for making a delicious jam. The fruit is about the size of a **Marula**. Although this spe-

THYMELAEACEAE

Gonna-familie

Die ongeveer 400 soorte wat in 40 geslagte ingedeel is, kom hoofsaaklik in Afrika, die Middellandse See-gebied en Australië voor. In dié familie word klein struikies, halfstruik, struik en klein boompies aangetref. Die blare is teenoorstaande of afwisselend. Die verteenwoordigers van hierdie familie het deurgaans 'n taai, veselagtige bas. In die Republiek van Suid-Afrika kom elf geslagte voor.

In die Broodboomtuin en Bourketuin is *Dais cotinifolia* (**Basboom**) aangeplant. Die geslagsnaam is deur David van Royen voorgestel omdat die bloeiwyse vir hom soos 'n fakkel gelyk het wat gereed is om aangesteek te word. Die blare het vir Linnaeus baie soos dié van die genus *Cotinus* gelyk, vandaar die tweede gedeelte van die naam.

Dit is 'n klein boompie wat vinnig groei en binne enkele jare 'n hoogte van 4 m bereik. Die blare is enkelvoudig en word teenoorstaande gedra. Die individuele, pienk blommetjies kom in hoefvormige bloeiwyses voor wat eindstandig op die takke gedra word. Hierdie mooi sierboompie wat in die laat lente blom, kan in die meeste Suid-Afrikaanse tuine aangeplant word. Dit is redelik droogtebestand maar aard die beste in volle sonlig en onder vogtige toestande. In Noord-Natal het die skrywer mooi eksemplare langs waterstrome gesien.

cies is useful as a hedge-plant or decorative shrub, it is sensitive to heavy frost.

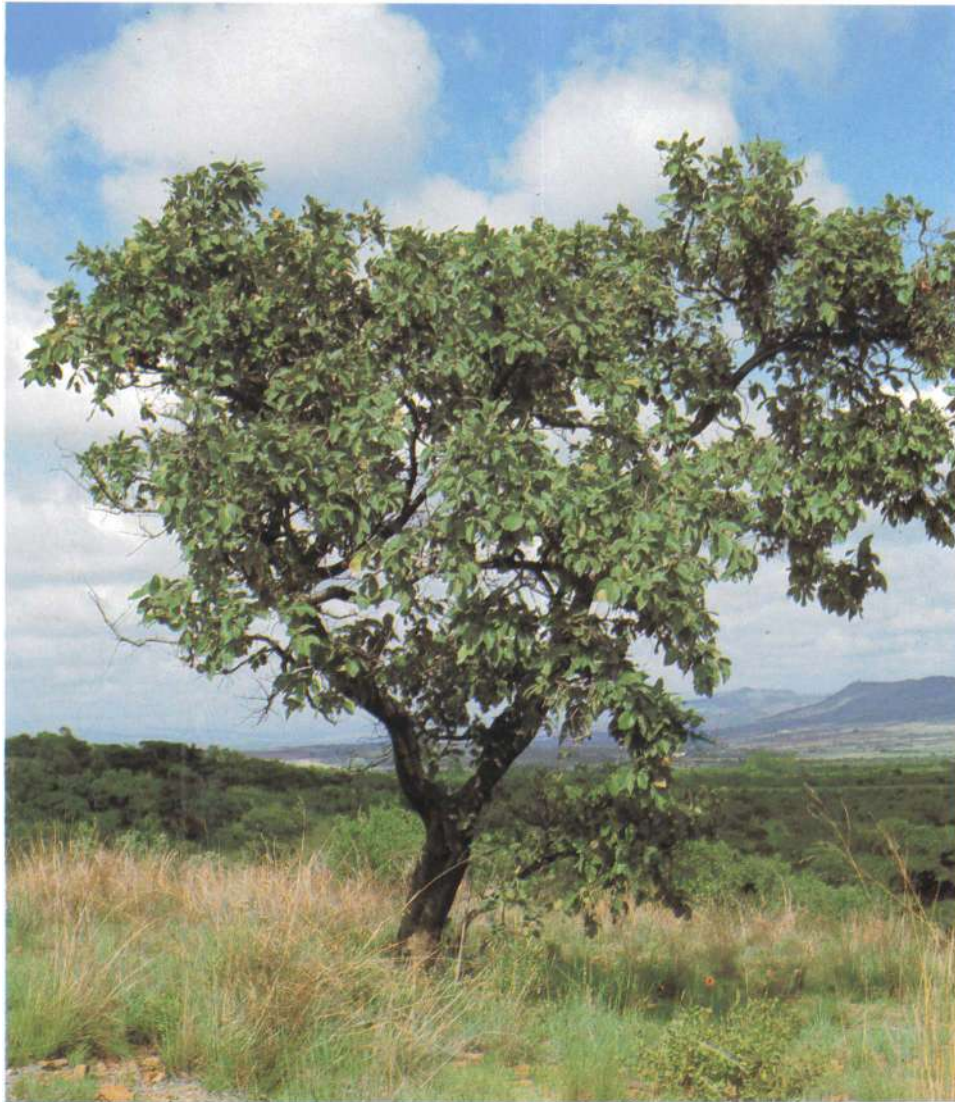
THYMELAEACEAE

Gonna Family

This family of some 40 genera and 400 species is found mainly in Africa, Mediterranean countries and Australia. The family consists of shrublets, undershrubs, shrubs and small trees. The leaves are opposite or alternate and all species in this family have a sticky, fibrous bark. Eleven genera occur in the Republic of South Africa.

Dais cotinifolia (**Pompon Tree**) has been established in the Bourke Garden and also in the Cycad Garden. The generic name was suggested by David van Royen, since the inflorescence resembles a torch, ready to be lit. The leaves reminded Linnaeus of those of the genus *Cotinus*, thence the specific epithet.

This species is a small, fast-growing tree which reaches a height of some 4 m within a few years. The leaves are simple and opposite. The individual pink flowers are borne in capituliform inflorescences at the branch terminals. This small and decorative tree which flowers in spring, would be an asset to most South African gardens. It is fairly drought-resistant, but thrives best in full sunlight under moist conditions. The author has seen some beautiful specimens growing beside streams in Northern Natal.



Combretum zeyheri
(Raasblaar — Large-fruited Bushwillow) (p. 102)

Combretum molle
(Fluweelboswilg — Velvet Bushwillow) (p. 100)

COMBRETACEAE

Boswilg-familie

Die Combretaceae is 'n redelik klein familie bestaande uit 19 genera en 600 spesies. Dit kom wydverspreid oor die tropiese en subtropiese dele van albei halfronde voor. Dit bestaan uit rankplante, struik en bome. Die meeste soorte in hierdie familie is houtagtig. Die aaragtige bloeiwyse en vrug as gevleuelde ahangsel is baie kenmerkend van soorte in hierdie familie. In die Republiek van Suid-Afrika is vyf geslagte reeds geïdentifiseer, waarvan *Combretum* en *Terminalia* oorheersend in Transvaal voorkom.

In Bourketuin en naby die suidelike parkeerruimte vir busse staan enkele eksemplare van *Combretum erythrophyllum* (**Rivier-vaderlandswilg**). Die geslagsnaam is 'n Latynse naam vir 'n rankplant. Dit is afkomstig uit Oud-Gallies. *Erythros* en *phyllon* is Griekse woorde wat respektiewelik 'rooi' en 'blaar' beteken.

Hierdie boomsoort kom hoofsaaklik langs waterstrome of riviere voor. Die pragtige herfskleure is sy besondere kenmerk. Dit kan 'n hoogte van 12 m bereik en is bladwisselend. Gewoonlik het hierdie soort 'n redelik digte maar vormlose kroon. Die blare is enkelvoudig. Die bloeiwyse is saamgestel uit 'n groot aantal geel-groen blommetjies. Waar water volop is, groei die **Rivier-vaderlandswilg** baie vinnig. Dit is rypbestand en kan derhalwe in die meeste Suid-Afrikaanse tuine aangeplant word.

Van die *Combretum molle* (**Fluweelboswilg**) staan daar langs die Wandelpad en by die Prellerstraatingang etlike voorbeelde. Die tweede gedeelte van die naam beteken 'sagharig'. *Molle* beteken 'sag'. Gewoonlik bereik hierdie soort 'n hoogte van ongeveer 10 tot 12 m. Dit is bladwisselend. Die enkelvoudige blare word teenoorstaande en selfs afwisselend gedra. Die bloeiwyse bestaan uit klein, welriekende, geel blommetjies wat in diggepakte, langwerpige, silindriese blomare gerangskik is. *Combretum molle*

COMBRETACEAE

Bushwillow Family

This is a fairly small family, comprising 19 genera and 600 species. It is widely distributed in tropical and subtropical regions in both hemispheres. The family consists of trees and shrubs, which are often scandent, and climbers. Most species are woody. The flowers are characteristically borne in spikes and the fruit is winged. Of the five genera which have so far been identified in South Africa, *Combretum* and *Terminalia* occur mainly in the Transvaal.

A few specimens of *Combretum erythrophyllum* (**River Bushwillow**) may be found in the Bourke Garden and near the southern bus terminal. The generic name is the Latin name for a climber, and is derived from an ancient Gallic word. *Erythros* and *phyllon* are the Greek words for 'red' and 'leaf'.

This species is found mainly along streambanks. The exquisite autumn colours are characteristic of this species, which grows to a height of up to 12 m. The tree is deciduous and often has a dense, shapeless crown. The leaves are simple and the inflorescence is composed of numerous small, yellow-green flowers. This tree grows very rapidly in well-watered areas. It is resistant to frost and may thus be planted in most South African gardens.

Combretum molle is commonly known as the **Velvet Bushwillow**. Numerous specimens are found along the Nature Trail and also at the Preller Street entrance. The specific epithet *molle* means 'soft' and refers to the soft hairs of this species. This deciduous tree usually reaches a height of 10 to 12 m. The leaves are simple and opposite, and sometimes alternate. The inflorescences are composed of tiny, fragrant, yellow flowers arranged in dense, longitudinal, cylindrical spikes. *Combretum molle* is a fairly fast grower and sensitive to heavy frost. Although not suitable as a

Zosterops palidus
(Gewone Glasogie – Pale White-eye) (pp. 22, 24)



is nie teen strawwe ryp bestand nie. Dit groei redelik vinnig. Dit is nie juis 'n baie geskikte skaduboom nie, maar dra kleurvolle blare.

Combretum zeyheri kan in Bourketuin en in die omgewing van Prellerstraatingang gesien word. Dit het die baie bekende naam **Raasblaar**. Die tweede gedeelte van die naam vereer Karl Ludwig Zeyher (1799–1858).

Dit is 'n bladwisselende middelmatige boom wat selde hoër as 14 m. word. Dikwels is dit meerstammig met spreidende takke. 'n Baie opvallende kenmerk van dié spesie is die groot, droë, vier-vlerkige vrugte wat tot 6 cm lank kan wees. Die droë vrugte ritsel in die wind. Die **Raasblaar** is nie rypbestand nie. Dit groei baie stadig en is nie juis 'n baie dekoratiewe boom nie.

Die **Vaalboom** (*Terminalia sericea*) is van al die spesies in hierdie geslag die bekendste. Dit kom baie wydverspreid voor. Die geslagsnaam kom van die Latynse woord *terminus* wat 'end' beteken en betrekking het op die blare wat in trosse aan die ente van takke gedra word. *Sericea* beteken letterlik 'syagtig'.

Terminalia sericea kan 'n hoogte van tot 18 m bereik. Die silwerkleurige blare is baie opvallend en het tot sy besondere volksnaam aanleiding gegee. Die klein, witterige blommetjies is baie onwelriekend en word in dun are gedra. Die boom groei taamlik stadig en is redelik ryp- en droogtebestand. Dit is 'n mooi skaduboom wat egter nie in kleinerige tuintjies aangeplant kan word nie. In Bourketuin staan 'n eksemplaar.

ARALIACEAE

Kiepersol-familie

Tot dusver is 55 geslagte en 700 spesies van die onderhawige fami-

shade tree, its beautifully coloured leaves are highly decorative.

Combretum zeyheri (**Large-fruited Bushwillow**) is found in the Bourke Garden and in the vicinity of the Preller Street entrance, and is a very well-known species, named in honour of Karl Ludwig Zeyher (1799–1858).

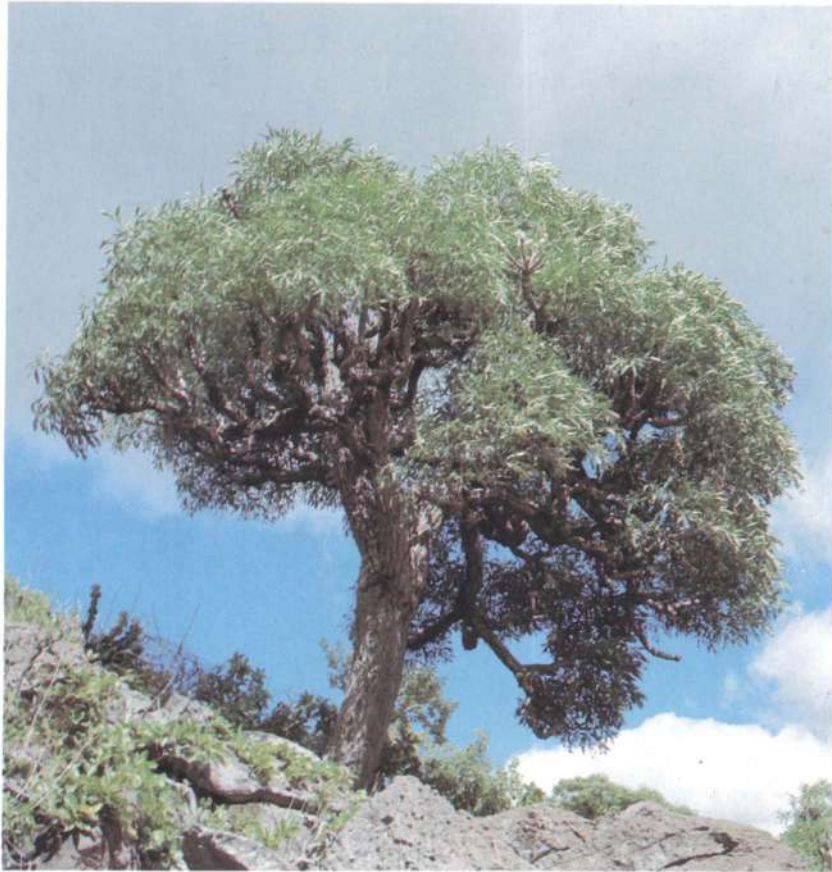
This medium-sized, deciduous tree seldom reaches a height of more than 14 m. It often has several trunks and spreading branches. A striking feature of this species is the large, dry, four-winged fruit, which can be up to 6 cm in length. The dry fruit rustles in the wind. This species is a very slow grower and sensitive to frost. It is also not a very decorative tree. The **Silver Cluster-leaf** is botanically known as *Terminalia sericea*. It is very widely distributed and the best-known of all the species in this genus. The generic name is derived from the Latin word *terminus* and refers to the leaves which are borne in clusters on the branch terminals. The specific epithet refers to the silvery appearance of the leaves.

This species reaches a height of up to 18 m. The silvery leaves are very striking and gave rise to the common name of this species. The small, white flowers are borne in spikes and have a distinctly unpleasant odour. It is a fairly slow grower, but can withstand a fair amount of frost and drought. Although not suitable for small gardens, it is useful as a decorative and effective shade tree. A specimen can be seen in Bourke Garden.

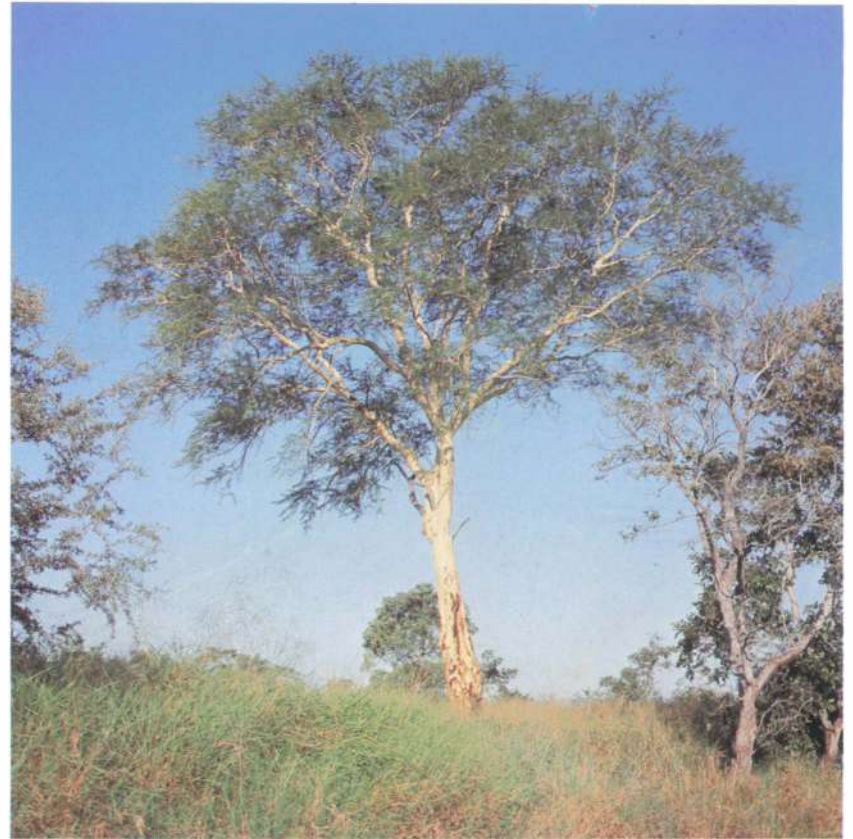
ARALIACEAE

Cabbage-tree Family

In this family of trees and shrubs, which are sometimes scandent, there are 55 known genera and 700 species, distributed in tropical areas throughout the world. *Schefflera*, *Cussonia* and *Seemanna* are the only three genera found in the Republic of South



Cussonia spicata
(Gewone Kiepersol – Common Cabbage Tree) (p. 104)



Acacia xantoploea
(Koorsboom – Fever Tree) (pp. 64, 66)

lie bekend. Hulle is in al die tropiese dele van die wêreld versprei. Slegs drie geslagte word in die Republiek van Suid-Afrika aangetref, naamlik *Schefflera*, *Cussonia* en *Seemannaralia*. Verteenwoordigers van hierdie familie sluit bome, struik en soms ook klimplante in. Die blare is afwisselend en word selde teenoorstaande gedra. Die reëlmatige, tweeslagtige blomme kom in skerms, are of trosse voor.

By die hoofingang van die Theo van Wijkgebou staan *Cussonia spicata* en *C. paniculata*. In Bourketuin en Die Broodboomtuin is daar ook enkele voorbeelde van hierdie spesies. Die geslagsnaam vereer P. Cusson, 'n Franse plantkundige. Die volksnaam is **Kiepersol**. Volgens Smith (1966) kom die algemene naam van die Portugeuse woord *quita-sol* wat letterlik vertaal 'skuiling teen die son' beteken.

Cussonia paniculata (**Bergkiepersol**) is die bekendste spesie van die geslag. Die naam *paniculata* verwys na die blomme wat in vele pluime of are gerangskik is. Dit groei selde hoër as 3 tot 4 m. Die loof kom op die punte van die takke uit. Die blougroen blare is handvormig. Die klein, groen, sittende blommetjies kom in pluime voor. Die **Bergkiepersol** word baie dikwels in tuine aan geplant. Dit neem min ruimte in beslag en is nie rypgevoelig nie.

Cussonia spicata (**Gewone Kiepersol**) is 'n soort wat baie vinnig groei en tot 15 m hoog kan groei. *Spicata* is afgelei van die Latynse woord wat 'aar' beteken en betrekking het op die bloeiwyse. Die klein, groen blommetjies kom in are voor wat in skerms gerangskik is. Die meeste plante is meerstammig as gevolg van vertakking wat reeds in die grond of ook hoër op kan plaasvind. In teenstelling met *C. paniculata* is hierdie spesie rypgevoelig. As sierboom verdien dit 'n plek in die tuin, veral in groot tuine of parke.

Africa. The leaves are alternate and seldom opposite and the regular, bisexual flowers are borne in umbels, spikes or racemes.

Examples of *Cussonia spicata* and *C. paniculata* may be seen at the main entrance to the Theo van Wijk Building, while a few specimens are also found in the Bourke Garden and the Cycad Garden. The genus is named after the French botanist, P. Cusson. According to Smith (1966) the Afrikaans common name, **Kiepersol**, is derived from the Portuguese *quita-sol* which, literally translated, means 'protection against the sun'.

Cussonia paniculata (**Mountain Cabbage Tree**) is the commonest species of this genus. The term *paniculata* refers to the flowers, which are arranged in numerous panicles or spikes. This species seldom reaches a height of more than 3 to 4 m. The foliage appears at the extremity of the branches, and the blue-green leaves are palmately compound. The small, green flowers are borne in sessile panicles. This species is popular in gardens. It does not require much space and is resistant to frost.

Cussonia spicata (**Common Cabbage Tree**) is a very fast grower and reaches a height of up to 15 m. The specific epithet is derived from the Latin word for a spike and refers to the inflorescence. The small, green flowers are borne in spikes, arranged in umbels. These trees have several trunks and may branch out above or below the surface of the soil. In contrast to *C. paniculata*, this species is sensitive to frost. However, it is a decorative tree and a good choice for gardens, especially large gardens and parks.



Dovyalis caffra
(Kei-appel — Kei-apple) (p. 97)

Bequaertiodendron magalismontanum
(Stamvrug — Transvaal Milkplum) (p. 108)



PLUMBAGINACEAE

Plumbago-familie

Ongeveer tien geslagte en 300 kosmopolitiese spesies is tot op hede in hierdie kleinerige familie bekend. Lede van hierdie familie bestaan uit struike, klein struikies en kruide met afwisselende blare wat in rosette gerangskik is. Die reëlmatige blomme is tweeslagtig. In die Republiek van Suid-Afrika word drie geslagte aangetref waarvan die *Plumbago* moontlik die bekendste is. Dit is interessant om daarop te let dat die Primulaceae die Plumbaginaceae voorafgaan volgens die klassifikasiesisteem.

Plumbago capensis (**Kaapse Loodkruid**) is 'n baie bekende sierstruik wat pragtige, ligblou blommetjies dra. Die genusnaam kom van die Latynse woord *plumbum* wat 'lood' beteken. *Capensis* verwys na die Kaapprovinsie. In Bourketuin staan 'n hele paar volwasse plante wat jaarliks pragtig blom. Dit groei selde hoër as ongeveer 1,5 m. Dit kan as heiningplant of as sierstruik in tuine gebruik word. Die struik is nie baie gehard nie en sal alleenlik matige koue weerstaan.

SAPOTACEAE

Melkhout-familie

Letty (1962) wys daarop dat van die beste inheemse vrugte van tropiese Amerika uit hierdie familie kom. Dit is 'n familie van struike en bome met melksap en leeragtige blare wat in die tropiese en subtropiese streke van albei halfronde voorkom. Die naam kom van die Meksikaanse plant *Zapotl*, waarvan die melksap die basis

PLUMBAGINACEAE

Plumbago Family

Approximately ten genera and 300 cosmopolitan species of this rather small family have so far been identified. This family consists of shrubs, shrublets and herbs with alternate leaves borne in rosettes. The flowers are regular and bisexual.

Of the three genera occurring in the Republic of South Africa, *Plumbago* is probably the most well-known. It is interesting to note that in botanical classification, this family is preceded by the Primulaceae.

Plumbago capensis (**Cape Leadwort**) is a well-known and decorative shrub which bears beautiful, pale blue flowers. The generic name is derived from the Latin *plumbum*, which means 'lead', while *capensis* refers to the Cape Province. In the Bourke Garden, numerous adult specimens make a beautiful show each year when in bloom. This species seldom reaches a height of more than 1,5 m. It is useful as a hedge-plant and very decorative as a shrub. It is not very hardy and can withstand only moderate cold.

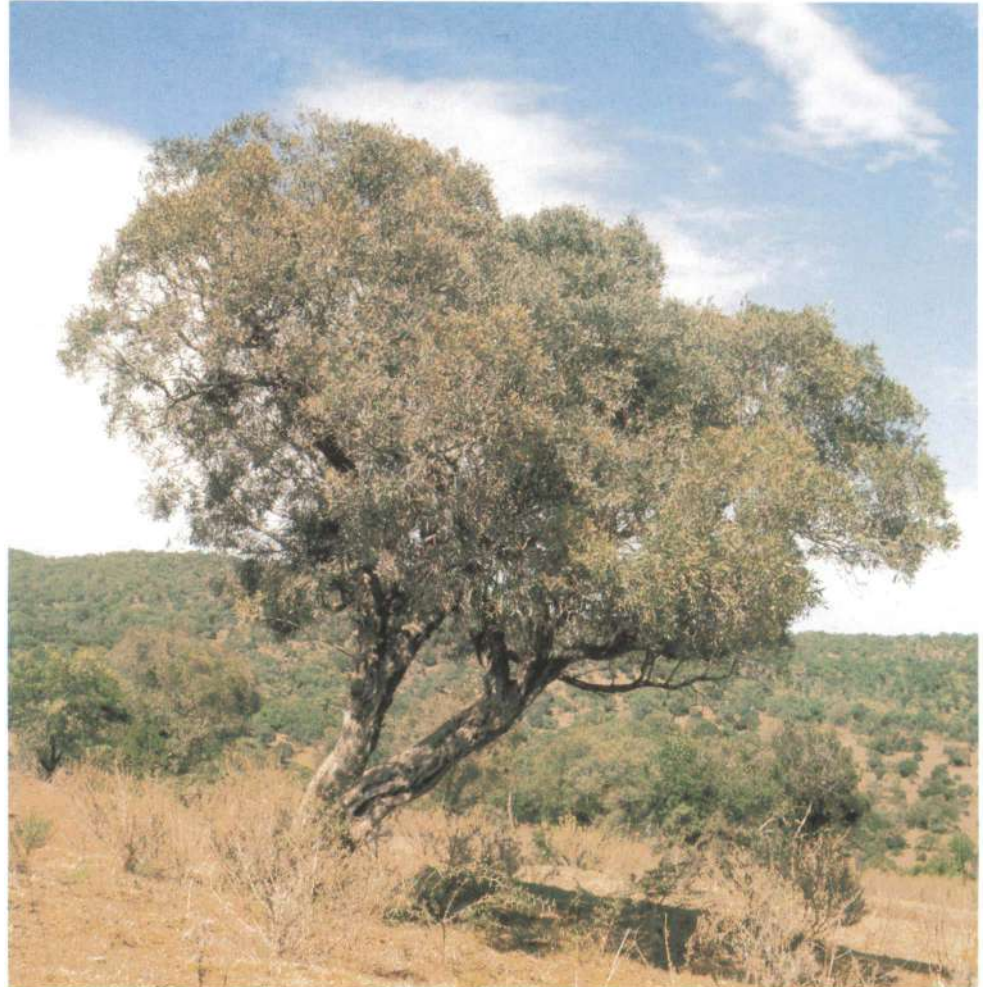
SAPOTACEAE

Milkwood Family

According to Letty (1962), the best indigenous fruit in tropical America belongs to this family. This family of shrubs and trees produce latex and have leathery leaves. It occurs in tropical and subtropical regions on both hemispheres. The family name is derived from the Mexican plant, *Zapotl*, the latex of which is used as

Olea africana
(Olienhout – Wild Olive) (p. 109)

Bloeiwyse – Inflorescence



vir kougom vorm. Ongeveer 35 tot 75 swak beskrewe genera en 800 spesies is bekend. In Suid-Afrika is sewe geslagte bekend waaronder een van ons bekendste wilde vrugte tel, naamlik *Bequaertiodendron megalismontanum* (**Stamvrug**). Drie spesies is bekend, waarvan twee in Suid-Afrika voorkom.

Bequaertiodendron megalismontanum groei langs die Wandelpad en op die rantjies langs die suidelike heining van Bourketuin. *Dendron* beteken 'boom' terwyl die spesifieke epiteton na die Magaliesbergomgewing verwys. Dit is 'n immergroen struik wat ongeveer 6 tot 8 m hoog groei. Dit het 'n digte, uitspreidende, ronde kroon. Die stam is kort, kaal en dikwels krom of gebuig. Die enkelvoudige, leeragtige blare is ver van mekaar gespasieer. Die vrugte is met viltlaag bedek en as dit 'n letsel kry, sypel 'n taai melksap uit die wond. Die vrug het 'n soetsuur smaak. Bobbejane, ape en voëls wat vrugtevreter is, is besonder lief vir die ryp vrug met sy een of twee gladde pitte. Veral **Muisvoëls** en **Tiptolle** is baie lief vir die vruggies.

Hierdie spesie kan van saad of steggies voortgeplant word. Dit is droogtebestand en kan ook redelik lae temperature verduur. In rotsagtige formasies veral groei dit baie goed.

OLEACEAE

Olywe-familie

In die geledere van hierdie familie tel groot bome, struie, welige rankplante en selfs kleinerige kruide. Die familie word deur 20 geslagte en 300 spesies verteenwoordig. In die Republiek van Suid-Afrika is vyf geslagte bekend. Die blare word teenoorstaande of soms afwisselend gedra en bevat tien persent proteïen. Hierdie familie volg net na die familie Ebenaceae.

a base for making chewing-gum. Some 35 to 75 inadequately described genera and 800 species are known. Seven genera occur in South Africa, one of which is the very well-known wild fruit, *Bequaertiodendron megalismontanum* (**Transvaal Milkplum**). Of the three known species, two occur in South Africa.

Bequaertiodendron megalismontanum grows beside the Nature Trail and on top of Muckleneuk Ridge near the fence on the southern side of the Bourke Garden. *Dendron* denotes a tree, while the specific epithet refers to the Magaliesberg area. This species is an evergreen shrub with a round, dense, spreading crown. It reaches a height of some 6 to 8 m. The stem is short, smooth and often curved. The simple, leathery leaves are widely spaced. The fruit is villiform and when injured, exude a viscose, milky fluid. The fruit has a fairly astringent taste and contains one or two smooth seeds. Monkeys, baboons and fruit-eating birds, including **Bulbuls** and **Mousebirds**, feed on the fruit.

These shrubs are resistant to drought and can withstand fairly cold temperatures. They thrive best on rocky formations. They may be propagated from seed or cuttings.

OLEACEAE

Olive Family

This family of large trees, shrubs and luxuriant climbers also includes some 20 genera of fairly small herbs, represented by about 300 species. Five genera are found in the Republic of South Africa. The leaves are opposite, sometimes alternate and contain ten per cent protein. Botanically this family is classified as following after the Ebenaceae.

The flowers are regular and bisexual, or sometimes monosexu-

Die reëlmatige blomme is tweeslagtig, alhoewel dit soms ook eenslagtig kan wees. Een van ons bekendste boomsoorte, naamlik die **Olienhout** (*Olea africana*) behoort tot hierdie familie. In die geslag *Olea* is reeds 50 soorte bekend wat hoofsaaklik in die lande om die Middellandse See voorkom. Vier spesies en enkele subspesies kom in Suid-Afrika en Suidwes-Afrika voor. Die genusnaam is die Latynse woord vir 'olyf' en *africana* het betrekking op Afrika.

Olea africana is die sogenaamde provinsiale boom van die Oranje-Vrystaat. "So kenmerkend is die bome op die koppies van die Vrystaat dat dit in 1855 gekies is as die heraldiese boom op die ampswapen van die Vrystaat. Een van die Vrystaatse **Olienhout-bome** is as nasionale monument verklaar – die 'Boom van Same-swering' op Onze Rust, die plaas van die laaste president van die Vrystaatse Republiek, M.T. Steyn." (Vgl. *Vygie*, Maart 1982.)

Op plekke waar ons plantegroei op die hoofkampus nog nie deur gebouekomplekse "vervang" is nie, kom *Olea africana* natuurlik voor. Langs die Wandelpad groei ook enkele voorbeelde van hierdie boomsoort. By die tennisbaan in Bourketuin staan 'n baie mooi voorbeeld van hierdie boomsoort.

Die **Olienhout** kan tot 12 m hoog groei en is immergroen, en droogte- en rypbestand. Die uitspreidende kroon is baie kenmerkend van hierdie skaduweeboom wat baie stadig groei. Dit is baie aanpasbaar by uiteenlopende klimatologiese kondisies. Die olywe is ietwat bitter maar tog eetbaar. Gedurende die wintermaande vreet **Spreeus**, **Muisvoëls** en ander voëlspesies heerlik aan die ovaalvormige vruggies.

al. One of our most well-known trees, the **Wild Olive** (*Olea africana*) belongs to this family. There are over 50 known species of this genus, most of which occur along the Mediterranean coast. Four species and a few subspecies are indigenous to South Africa and South West Africa. The generic name is the Latin word for an olive, while '*africana*' refers to Africa.

Olea africana is the so-called provincial tree of the Orange Free State. The sight of these trees growing on the koppies is so typical of that province that it was chosen as the heraldic tree of that province in 1855. One of the **Wild Olive** trees is the Orange Free State has also been declared a national monument – the 'Tree of the Covenant' on the farm 'Onze Rust', which belonged to the last president of the Republic of the Orange Free State, President M. T. Steyn. (From *Vygie*, March 1982.)

Olea africana occurs in its natural habitat in various areas on the main campus, where the natural vegetation has not yet had to make way for buildings. A few specimens are also found along the Nature Trail, while a very good specimen grows in the Bourke Garden.

The **Wild Olive** is an evergreen with a spreading crown and grows to a maximum height of 12 m. It is resistant to frost and drought. It is a slow grower and extremely useful as a shade tree, and will thrive under the most diverse conditions. The olives are edible, although somewhat bitter. **Starlings**, **Mousebirds** and other bird species are fond of the oval-shaped fruit, which appear during the winter.

LOGANIACEAE

Wildevlier-familie

Van die ongeveer 30 geslagte en 400 soorte word slegs vyf in die Republiek van Suid-Afrika aangetref. Die meeste spesies in hierdie familie kom verspreid oor die tropiese en subtropiese wêreldstreke voor as bome, struie en slingerplante. Die blare is enkelvoudig, teenoorstaande en selde afwisselend. Die bloeiwyse is byskermig. Blomtrosse en alleenstaande blomme kom baie selde in hierdie familie voor.

Twee geslagte word op Unisa se hoofkampus aangetref, naamlik *Strychnos* en *Buddleja*. Van die 400 *Strychnos*-spesies wat bekend is, kom nege in Suid-Afrika voor. Wat die *Buddleja*-geslag betref, word sewe van die 100 spesies in Suid-Afrika aangetref, en dit is die belangrikste geslag van die betrokke familie.

Strychnos cocculoides staan as **Kurkklopper** bekend vanweë die diep geslypte kurkagtige bas. Die tweede gedeelte van die naam beteken 'geswolle saad'. Voorbeelde van hierdie soort is in Bourketuin te sien waar dit besonder goed aard. Dit is 'n bladwisselende boom wat tot 9 m hoog groei. Die blare word teenoorstaande gedra, en die groen of wit blommetjies kom in eindstandige byskerms voor. Die groot, ronde vrugte het 'n deursnee van ongeveer 7 tot 8 cm, is geurig en bevat 'n eetbare moes of vleis waarin die sade ingebed is.

Strychnos spinosa (**Groenklopper**) groei net wes van Prellerstraat in assosiasie met talle ander boomspesies. Die naam *spinosa* beteken 'doring' en verwys na die dorings waarmee hierdie spesie bewapen is. Dit is 'n bladwisselende boomsoort wat selde hoër as 6 tot 7 m groei. Hierdie spesie groei gewoonlik yl vertak met 'n uitspreidende kroon en 'n korterige, krom stam. Die enkelvoudige blare kom kruisgewys in pare aan nuwe groeipunte voor. Die wit blommetjies vertoon opvallend in klein blomtrassies aan die

LOGANIACEAE

Wild Elder Family

This family comprises some 30 genera and 400 species, of which only five occur in the Republic of South Africa. Most species of this family are widely distributed in tropical and subtropical regions. It is a family of trees, shrubs and ramblers. The leaves are simple, opposite and rarely alternate. The inflorescence is cymose; single or racemose flowers are rare in this family.

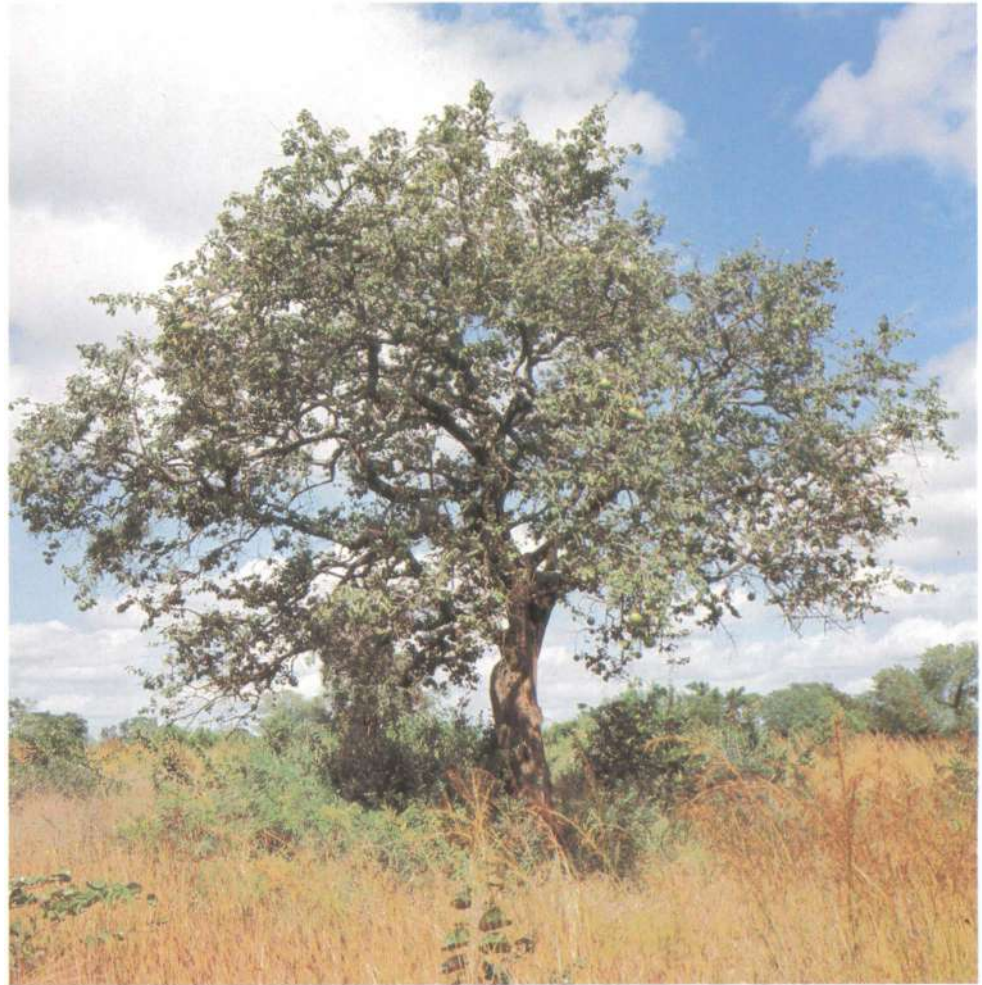
The genera, *Strychnos* and *Buddleja* represent this family on the main campus. Of the 400 known *Strychnos* species, nine are indigenous to South Africa, while seven of the 100 *Buddleja* species also occur in this country. The latter is the most important genus in this family.

Strychnos cocculoides is commonly known as the **Corky Monkey Orange**, due to its thickly corky bark. The specific epithet literally means 'swollen seed'. A number of these trees may be found in the Bourke Garden, which provides admirably suitable conditions for this species. It is a deciduous tree and reaches a maximum height of 9 m. The leaves are opposite and the small, green or white flowers are borne in terminal cymes. The large, round fruit, with a diameter of 7 to 8 cm, is edible and very tasty. It contains a fleshy pulp, with embedded seeds.

Strychnos spinosa (**Green Monkey Orange**) is found west of the Preller Street entrance in association with numerous other species. The epithet *spinosa* refers to the spines with which this species is armed. This **Green Monkey Orange** is deciduous and seldom grows taller than 6 to 7 m. It is usually sparsely branched and has a spreading crown and fairly short, curved trunk. The leaves are simple and borne in pairs on the new growing point. The small, white flowers are borne in conspicuous, small racemes at the branch terminals. This tree may be recommended to anyone



Vrug – Fruit



Strychnos spinosa
(Groenklapper – Green Monkey Orange) (p. 110)

eindpunte van takke. Liefhebbers van inheemse bome kan dit genus aanplant. Dit is egter 'n stadige groeier wat nie teen strawwe koues bestand is nie.

In Bourketuin groei *Buddleja salviifolia* wat algemeen as **Saliehout** bekend is. Die genusnaam vereer Adam Buddle (1660–1715), 'n Engelse predikant, terwyl die tweede gedeelte van die naam na die salie-agtige blare verwys. Dit is 'n struik met opvallende growwe blare. Gedurende die vroeë lente is hierdie welig groeiende soort oortrek met groot eindstandige trosse blommetjies. Die struik het 'n slordige voorkoms as dit nie af en toe gesnoei word nie wat veroorsaak dat dit dan ook beter blom. In die meeste Suid-Afrikaanse tuine sal hierdie geharde soorte baie goed aard.

BORAGINACEAE

Komkommerkruid-familie

Ongeveer 100 geslagte en 2 000 spesies is reeds wêreldwyd in hierdie familie bekend. Letty (1962) wys daarop dat die **Europese Vergeet-my-nietjie** een van die bekendste lede van hierdie familie is. In die familie vind ons bome, jaarplante, meerjarige kruide en struie. Die blare is afwisselend en baie selde teenoorstaande. Die vrugbeginsel is gewoonlik vierlobbig, dikwels tot aan die voet. Die bloeiwyse is 'n wisseltakkige byskerm. Ongeveer 15 geslagte van hierdie familie word in die Republiek van Suid-Afrika gevind. Een van die geslagte wat op die hoofkampus natuurlik voorkom, heet *Ehretia*. Die naam vereer G.D. Ehret (1708–1770) wat 'n plantkundige kunstenaar uit die 18de eeu was.

Van die 50 bekende spesies in hierdie genus kom *Ehretia rigida* (**Deurmekaarbos**) oral tussen die bome en struie op die hoof-

who is fond of indigenous trees. However, it is a slow grower and sensitive to frost.

Buddleja salviifolia, commonly known as **Sagewood**, may be seen in the Bourke Garden. The genus is named after the Reverend Adam Buddle (1660–1715), a British minister, while *salviifolia* refers to the salvia-like and remarkably coarse leaves of this species. In the early spring, this luxuriant species is covered in tiny flowers borne in large, terminal cymes. This shrub becomes very untidy if not occasionally pruned, and also flowers more profusely if it is cut back. It is a hardy species which will thrive in most South African gardens.

BORAGINACEAE

Borage Family

Some 100 genera and 2 000 species of this family are known throughout the world. Letty (1962) points out that the European **Forget-me-not** is one of the most widely known members of this family of trees, annuals, perennials, herbs and shrubs. The leaves are alternate, and rarely opposite. The ovary is usually 4-lobed, frequently down to the base. The inflorescence is an alternately branched cyme. Some 25 genera of this family occur in South Africa. One genus naturally occurring on the main campus, is *Ehretia*, named in honour of G.D. Ehret (1708–1770), a botanical artist.

Ehretia rigida, one of the 50 known species of this genus, flourishes between the trees and shrubs on the campus. The specific name *rigida* denotes that this is a rigid, twiggy shrub. It is widely distributed in the Republic of South Africa. Due to its characteristic, tangled, pendulous branches, this dense shrub is commonly

kampus voor. Die tweede gedeelte van die naam beteken 'styf' of 'onbuigsaam'. Hierdie struiksoort kom wydverspreid in die Republiek van Suid-Afrika voor. Dit is 'n ruie struik wat 3 tot 4 m hoog groei. Die neerhangende en ineengestregelde takke het tot die tiperende volksnaam aanleiding gegee. Langs die boë van die takke verskyn kort byskermes met ligpers blommetjies. Die blare is olyfgroen. Die groen bessies kry later 'n gelerige rooi kleur. In hierdie stadium is baie voëlsoorte soos **Muisvoëls**, **Spreeus**, **Lysters**, **Mossies** en **Swartoogtiptolle** gereelde besoekers by hierdie struik. Wanneer kos skaars is, vreet **Spreeus** en **Lysters** ook van die bessies. (Hierdie voëls wat so in stede aangepas is, vreet gewone mieliepap ook.)

Dit is 'n baie geharde struik wat oral aangeplant kan word, alhoewel dit nie baie netjies in die tuin vertoon nie. Dit sal egter sekere voëlsoorte lok.

LABIATAE (LAMIACEAE)

Salie-familie

In die *Nasionale Boomlys* (1978) is hierdie familie nie opgeneem nie omdat dit nie houtagtige verteenwoordigers het nie. Die lede van hierdie familie tel 170 geslagte en 5 000 kosmopolitiese spesies waarvan 32 Suid-Afrikaans is. Baie van die inheemse soorte word deur Bantoes vir medisyne gebruik. Hoofsaaklik meerjarige kruide of struie met vierkantige stingels word in hierdie familie aangetref. Die blare is meesal teenoorstaande, steunblaarloos en geurig.

In Bourketuin, naby die laboratoria, en in die Broodboomtuin groei etlike voorbeelde van een van die spesies in hierdie familie, naamlik *Leonotis leonurus* (**Wildedagga**). Die eerste gedeelte van

known as the **Puzzle Bush**. It grows to a height of 3 to 4 m. The pale mauve flowers appear in short racemes along the curved branches. The leaves are olive-green. The berries, which are initially green, turn a yellowish-red colour later on. At that stage, numerous bird species such as **Mousebirds**, **Starlings**, the **Olive Thrush**, the **Cape Sparrow** and the **Black-eyed Bulbul** are regularly observed near these shrubs. When food is scarce, the **Olive Thrush** and **Starlings** will also feed on the berries. (These birds are well adapted to living in cities, and will also eat maize porridge.)

This hardy shrub will thrive under almost any conditions, although it is rather untidy-looking. It will undoubtedly attract many bird species to the garden.

LABIATAE (LAMIACEAE)

Salvia Family

This family is not included in the *National List of Trees* (1978), since none of the species in this family are woody. This is a large family, comprising some 170 genera and 5 000 cosmopolitan species, of which 32 are indigenous to the Republic of South Africa. The medicinal properties of many indigenous species are valued by the Black population.

This family consists mainly of perennial herbs or shrubs with square stems. The leaves are often fragrant, mostly opposite, sessile and exstipulate. Various species of *Leonotis leonurus* (**Minaret Flower**) are found in the Bourke Garden, the Cycad Garden, and near the laboratory. The generic name refers to a lion's ear, while the specific epithet refers to a lion's tail. In Afrikaans this species is known as '**Wildedagga**', but despite this

die naam het betrekking op 'n leeu se oor terwyl die tweede gedeelte na die leeu se stert verwys. Dit het egter geen narkotiese hoedanighede nie. Daar is reeds 30 spesies in hierdie geslag bekend waarvan 14 wydverspreid in die Republiek van Suid-Afrika voorkom.

Hierdie sierstruik kan 'n hoogte van tot 3 m bereik. Dit blom gewoonlik van April tot Junie. Die oranjekleurige blomme is baie opvallend. Dit word in 'n reeks kranse al langs die regopgroeiende stingels gedra. Die struik sal onder verskeie klimatologiese toestande oral in Suid-Afrikaanse tuine groei. Dit moet egter jaarliks na die blomperiode teruggesnoei word.

BIGNONIACEAE

Jacaranda-familie

Die 120 geslagte en 650 spesies in hierdie familie is hoofsaaklik in tropiese Amerika saamgetrek. Hulle is volgens Codd (1975) klim-, rank- en klouterplante, struike en bome, en selde kruide. *Jacaranda mimosifolia* uit Argentinië is een van die bekende soorte in hierdie familie. Baie soorte in hierdie familie word vir hulle opvallende blomme gekweek. In die Republiek van Suid-Afrika word ses geslagte aangetref. Die blare word teenoorstaande gedra en die blomme is tweeslagtig. Die Leeubekkie- en Sesam-families (Pedaliaceae) is nou verwant aan hierdie familie.

Tecomaria capensis is oral op die hoofkampus as sierstruik of heiningplant aangeplant. Die geslagsnaam dui op die affiniteit met die geslag *Tecoma* wat weer op sy beurt 'n vereenvoudiging van die Meksikaanse naam *Tecomaxochitl* is. Die volksnaam vir hierdie spesie is **Kaapse Kanferfoelie**. Slegs vier of vyf spesies is bekend waarvan bogenoemde in die Republiek van Suid-Afrika voorkom.

name, this plant has no narcotic properties. Of the 30 known species in this genus, 14 occur throughout the Republic of South Africa.

This decorative shrub grows to a maximum height of 3 m and flowers from April to June. The striking orange-coloured flowers are borne in a series of whorls along the erect stem. The **Minaret Flower** will thrive under a wide range of conditions, provided it is cut back after flowering.

BIGNONIACEAE

Jacaranda Family

This family of 120 genera and 650 species occurs mainly in tropical America. According to Codd (1975), the family consists of climbers, twiners, shrubs, trees, and rarely herbs. Many species in this family are cultivated for their showy flowers, one of the most popular being the *Jacaranda mimosifolia*, a species indigenous to Argentina. Six genera of this family occur in the Republic of South Africa. The leaves are opposite and the flowers bisexual. The Snapdragon and Sesame families (Pedaliaceae) are closely related to the Bignoniaceae.

The decorative shrub, *Tecomaria capensis*, (**Cape Honeysuckle**) is well represented on the main campus, both as a decorative shrub and as a hedge-plant. The generic name indicates an affinity with the genus *Tecoma*, which in turn is a simplification of the Mexican name, *Tecomaxochitl*. The specific name refers to the Cape province. This genus consists of no more than four or five species, of which *T. capensis* is the only one occurring in the Republic of South Africa.

This shrub grows to a maximum height of 8 m and has a tenden-



Bloeiwyse en vrug – Inflorescence and fruit

Kigelia africana
(Worsboom – Sausage Tree) (p. 16)



Hierdie spesie kan tot 8 m hoog groei. Dit het 'n neiging om rankerig te word. Die buisvormige rooi blomme vertoon mooi tussen die donkergroen geveerde blare. In baie koue dele sal hierdie sierstruik of heiningplant nie goed aard nie. Dit kan maklik van steggies gekweek word en groei baie vinnig. Volwasse plante moet gereeld teruggesnoei word, anders het dit 'n slordige voorkoms.

Suikerbekkies, behorende tot die familie Nectariniidae, is veral baie lief om insekte by die blomme van hierdie struiksoort te soek. Die nektar word ook gretiglik deur hulle geniet.

Kigelia africana (= *pinnata*) (**Worsboom**) se snaakse vrugte lyk soos dik, vaal worse. Die spesifieke naam beteken 'komende van Afrika'. Die geslagsnaam is 'n latinisering van die Angolese volksnaam *kigeli-keia*. Hierdie spesie kan tot 20 m hoog groei. Dit het 'n pragtige kroon. Die samegestelde blare is onewe geveer en die groot, klokvormige blomme het 'n fluweelagtige, diep rooipers kleur. Dit word in lang, neerhangende blomtrosse gedra. As skaduweeboom is dit baie ideaal. Dit is egter nie teen strawwe ryp bestand nie en behoort vir die eerste paar jare beskerm te word in gebiede waar ryp voorkom. In Bourketuin staan 'n mooi voorbeeld van hierdie spesie.

RUBIACEAE

Katjiepiering-familie

Hierdie groot familie kruid, struik en bome lewer onder meer sulke produkte soos koffie uit *Coffea arabica*. Die familie word deur ongeveer 500 geslagte en meer as 6 000 meesal kosmopolitiese spesies verteenwoordig.

In die trope word die meeste soorte aangetref. In die Republiek van Suid-Afrika kom 60 geslagte voor. Die groot aantreklike

cy to climb. The tubular, scarlet flowers look extremely attractive against the background of the dark green, pinnate leaves.

It is sensitive to frost and not suitable for cold climates. It is readily propagated from cuttings and is a fast grower. The mature plant becomes untidy if not cut back at regular intervals.

Sunbirds of the Nectariniidae family frequently hover about these shrubs in search of insects; they also feed on the nectar.

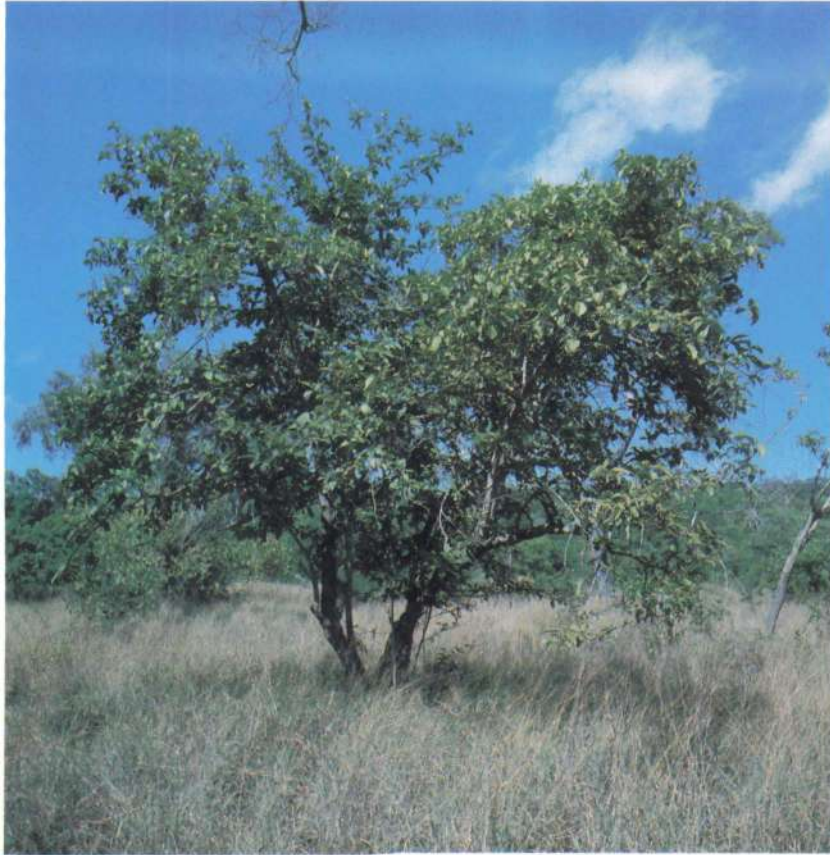
Kigelia africana (= *pinnata*) (**Sausage Tree**) bears remarkably strange fruit resembling thick, greyish-brown sausages. The specific epithet indicates that it is indigenous to Africa, while the generic name is a latinisation of the Angolan common name, *Kigeli-kei*. This species has a beautiful crown and may reach a height of 20 m. The leaves are compound and imparipinnate and the large, bell-shaped, velvety, deep reddish-mauve flowers are borne in long-peduncled panicles. This species is ideal as a shade tree. However, it is sensitive to heavy frost and should be protected for the first few years in areas where frost is likely to occur. A good specimen is found in the Bourke Garden.

RUBIACEAE

Gardenia Family

This large family of herbs, shrubs and trees includes the *Coffea arabica* species, from which coffee is produced. The family comprises some 500 genera and over 6 000, mostly cosmopolitan species.

Most species occur in the tropics, while 60 genera are found in the Republic of South Africa. Large, attractive flowers fairly large fruit and opposite or whorled leaves are typical of this family. Many species are also spinate.



Acacia albida
(Anaboom – Ana Tree) (p. 57)

Vangueria infausta
(Wildemispel – Wild Medlar) (p. 118)



blomme, redelike groot vrugte en blare wat teenoorstaande of kransgewys gerangskik is, is algemene kenmerke van verteenwoordigers van hierdie familie wat dikwels ook met doringe bewaapen is.

Een van die bekendste geslagte in hierdie familie is *Gardenia*. Hierdie naam vereer Alexander Garden, 'n vriend van Linnaeus. Ongeveer 250 spesies van hierdie geslag is reeds bekend.

In Bourketuin groei *Gardenia spatulifolia*. Die spesifieke epiteon het betrekking op die spatelvormige blare. Die volksnaam is **Transvaalkatjiepiering**. Hierdie spesie kan prakties as 'n immergroen, kleinerige boompie beskou word wat selde hoër as 8 m groei. Die blare is opvallend glad. Die vrug is oorlangs gerib en ongeveer 6 cm lank. Die blomme is ivoorwit, welriekend en baie dekoratief. Alhoewel hierdie spesie redelik droogtebestand is, sal dit nie strawwe ryp verduur nie. Dit kan van saad en steggies gekweek word. Tuiniers is nie altyd bewus van die waarde van hierdie soort as versiering in die tuin nie.

In Bourketuin en in die omgewing van die Wandelpad groei *Vangueria infausta* wat algemeen as **Wildemispel** bekend is. Die generiese naam kom waarskynlik van die inheemse naam *Voa Vanguer* wat in die Malgassiese Republiek vir een of ander spesie gebruik word. *Infausta* beteken 'om ongelukkig te wees'.

Hierdie baie bekende soort in die Republiek van Suid-Afrika word selde hoër as 6 m. Dit is 'n bladwisselende boomsoort met 'n housterige en slordige kroon. Die jong blare en takkies is met 'n ferweelagtige donserigheid oortrek. Die groenerige geel blommetjies wat in kortgesteelde trosse gedra word, is baie onopvallend. Die bolronde, eetbare vrugte het 'n deursnee van ongeveer 6 cm. Die drie sade is ingebed in 'n murgagtige stof wat 'n soetsuur smaak het. Dit is 'n baie stadige groeier wat droogte- en rypbestand is. **Tiptolle** en **Muisvoëls** is baie lief vir die vrugte van die **Wildemispel**. Dit word ook dikwels deur kinders geëet.

Canthium mundianum (**Klipels**) kom natuurlik op Unisa se hoofkampus voor — in die nabyheid van die Wandelpad staan en-

Gardenia is one of the most popular genera of this family. This genus, which honours Alexander Garden, a friend of Linnaeus, consists of some 250 known species.

Gardenia spatulifolia is found in the Bourke Garden. The specific epithet refers to the spatulate leaves. This species, commonly known as the **Transvaal Gardenia**, may be regarded as an evergreen, small tree and rarely grows to a height of more than 8 m. The leaves are strikingly smooth, the fruit is longitudinally ribbed and roughly 6 cm in length. The ivory-coloured flowers are fragrant and highly decorative. Although this species can withstand a fair amount of drought, it is sensitive to frost. Not all gardeners fully appreciate the value of this decorative species, which may be propagated from seed or cuttings.

Specimens of *Vangueria infausta* are found in the Bourke Garden and along the Nature Trail. This species is commonly known as the **Wild Medlar**. The generic name is probably derived from *Voa Vanguer*, the common name for a species indigenous to the Malagasy Republic. *Infausta* means 'bad luck'.

This tree, which is very well known in the Republic of South Africa, rarely reaches a height of more than 6 m. It is deciduous and has an untidy, woody crown. The young leaves and twigs are covered with a velvety fluff. The greenish-yellow flowers are borne in short-stemmed racemes and are very inconspicuous. The spherical fruit has a diameter of some 6 cm and is edible. The three seeds are embedded in a marrowy pulp, which has an astringent taste. This species is a very slow grower and resistant both to frost and drought. **Bulbuls** and **Mousebirds** are fond of the fruit, which is also frequently eaten by children.

Canthium mundianum occurs naturally on Unisa's main campus and a few specimens may be seen near the Nature Trail. This species is commonly known as the **Rock Alder**. The epithet honours Leopold Mund. The generic name is derived from the Indian name *Canti*.

Some 50 *Canthium* species are widely distributed throughout

kele voorbeelde. Die generiese naam is afgelei van die Indiese naam Canti terwyl die tweede gedeelte van die naam Leopold Mund vereer.

Ongeveer 50 spesies van die geslag *Canthium* kom wydverspreid in Afrika en Indië voor. In die Republiek van Suid-Afrika kom 13 voor. Die soorte in hierdie geslag is gewoonlik struik of kleinerige boompies met blare wat teenoorstaande gedra word. Die besondere klein, liggeel blommetjies kom in blomtrosse voor. Die blare is ongeveer 4 cm lank en 2,5 cm breed. Die takke is met lang, horisontale dorings bewapen. Die hoogte wat hierdie spesie kan bereik, is ongeveer 12 m. Die hout van hierdie *Canthium*-soort is aangewend vir die maak van houtgereedskap, meubels en perdekardisselbome.

Die **Fynblaarbruidsbos** se botaniese naam is *Pavetta zeyheri*. *Pavetta* is die Singalese volksnaam vir klein, tropiese struik van Indië en Afrika, terwyl die tweede gedeelte van die naam Karl Ludwig Zeyher vereer (1799–1858). In die omstreke van die Wandelpad kom hierdie soort op die hoofkampus voor. Tot dusver is 350 soorte in hierdie geslag reeds ontdek. Ongeveer 35 soorte kom wydverspreid in die Republiek van Suid-Afrika voor. *Pavetta zeyheri* is 'n kleinerige struiksoort met taamlike klein, langwerpige blaartjies. Die klein blommetjies en vrugte word in kleinerige trossies gedra.

ASTERACEAE (= COMPOSITAE)

Madeliefie-familie

Die Asteraceae is die grootste plantefamilie en bestaan uit ongeveer 900 geslagte en 17 000 soorte wat as kosmopolities bestempel kan word. In groeiwyse wissel die plante in hierdie familie van

Afrika en India, while 13 species occur in the Republic of South Africa. The indigenous species are mainly shrubs or smallish trees with opposite leaves. The tiny, pale yellow flowers are borne in racemes. The leaves are about 4 cm in length and 2,5 cm wide. The branches are armed with long, horizontal thorns or spines. The maximum height of this species is some 12 m. The wood of this species is used for making wooden tools, furniture and shafts for horse-drawn carts.

The botanical name of the **Small-leaved Bride's Bush** is *Pavetta zeyheri*. *Pavetta* is the Sinhalese common name for small, tropical shrubs indigenous to India and Africa, while the species is named in honour of Karl Ludwig Zeyher (1799–1858). The genus comprises 350 known species, of which some 35 are widely distributed throughout the Republic of South Africa. *Pavetta zeyheri* grows near the Nature Trail on the main campus. It is a fairly small shrub with small, narrowly lanceolate leaves. The tiny flowers and fruit are borne in smallish, branched heads.

ASTERACEAE (COMPOSITAE)

Daisy Family

This largest of all plant families consists of some 900 genera and 17 000 species. The family includes small herbs, to rather large trees. Despite the diversity of growth forms in this family, there is very little variation in the inflorescences and type of flowers. The so-called flower is in fact an inflorescence consisting of florets grouped together in heads. In the Republic of South Africa this family is represented by 194 genera and some 2 000 species, of which the most widely known is *Helianthus annuus* (**Sunflower**).

klein sagte kruidjies tot groterige bome. Al is die groeivorme baie uiteenlopend, bly die bloeiwyse en die aard van die blom baie konstant. Wat gewoonlik as die blom bekend staan, is in der waarheid 'n bloeiwyse; dit is 'n hofie. In die Republiek van Suid-Afrika word 194 geslagte en ongeveer 2 000 spesies aangetref. Die mees bekende lid van hierdie plantefamilie is die **Sonneblom** (*Helianthus annuus*).

Van die Suid-Afrikaanse geslagte kan slegs *Brachylaena* en *Tarchonanthus* as struikagtige bome bestempel word. In die nabyheid van die Wandelpad groei *Brachylaena rotundata*. Die generiese naam beteken letterlik 'met kort steenagtige arms'. *Rotundata* beteken 'gerond'. Dit het op die blare betrekking. Die volksnaam is **Bergvaalbos**.

Van die ongeveer 20 spesies wat reeds in hierdie geslag bekend is, word tien wydverspreid in Suid-Afrika aangetref, behalwe in die noordwestelike distrikte van Kaapland en Suidwes-Afrika. Dit is 'n onbuigsame, bladwisselende boskasie-agtige struik wat tot 2,5 m hoog kan groei. Die groot breë blare is afwisselend, gaaf-randig of getand. Die onderkant van die blare is wit en sagharig. Die bloeiwyse bestaan uit 'n digte, eindstandige pluim. Die blommetjies is geel en kom vanaf Augustus tot September uit.

Tarchonanthus camphoratus (**Kanferbos**) se hout en blare het 'n sterk kanferagtige reuk, soos van die tweede gedeelte van die naam afgelei kan word. Daar is tot dusver reeds ses spesies ontdek waarvan drie wydverspreid in die Republiek van Suid-Afrika voorkom.

Tarchonanthus camphoratus is 'n diësiëse boompie, dit wil sê, manlike en vroulike blomme kom op afsonderlike plante voor. Die blare is afwisselend en die onderkant is wit en sagharig. Hierdie veelstammige boom kan tot 3 m hoog groei. Die blomhofie is klein en in eindstandige pluime gerangskik. Dit groei meesal in gruisagtige of klipperige grond. In die rantjies van Unisa se Wandelpad staan enkele eksemplare van hierdie soort.

Of all the genera occurring in South Africa, only *Brachylaena* and *Tarchonanthus* may be regarded as shrublike trees. *Brachylaena rotundata* grows near the Nature Trail. The generic name means 'with short arms' while *rotundata* means 'rounded' and refers to the shape of the leaves. The common name is **Mountain Silver Oak**.

Some 20 species of this genus are known, of which 10 are widely distributed throughout the Republic of South Africa with the exception of the North Western Districts of the Cape Province and South West Africa/Namibia. This rigid, deciduous, bush shrub grows to a maximum height of 2,5 m. The broad leaves are alternate and entire or toothed and the under surface is often covered with soft, whitish hairs. The inflorescence consists of a dense, terminal panicle. The yellow florets appear from August to September.

Tarchonanthus camphoratus (**Camphor Bush**) is another species found on Unisa's main campus. The wood and leaves of this species emit a strong odour of camphor, as indicated by the specific botanical designation. Six species of this genus have so far been discovered, of which three are widely distributed throughout the Republic of South Africa.

This is a dioecious tree, in other words, male and female flowers are borne on separate plants. The leaves are alternate and the under leaf surface is covered with soft, whitish hairs. This multi-stemmed species reaches a maximum height of 3 m. The florets are small and arranged in terminal panicles. It thrives in gravelly or stony soil. A number of specimens are found on Muckleneuk Ridge along the Nature Trail.

Epiloog

Die bewarings- en bewerkingsopdrag waaronder die mens leef, plaas in stedelike gebiede moontlik 'n groter verpligting en 'n moeiliker opgawe op hom as in plattelandse gebiede.

Waar daar op die platteland groot dele van die natuurlike flora en fauna ongeskonde kan bly en gedy sonder doelbewuste ingryping deur die mens, is die stadsbewoner verplig om juis die natuurlike omgewing te wysig ten einde aldaar volgens sy heersende gebruike te kan leef en werk. Hy is genoodsaak om gebiede te ontbos, die natuurlike loop van water te wysig, dale op te vul, heuwels weg te stoot – en waar plant en dier eens ongestoord kon lewe, paaie, spoorlyne, kables, pale, wolkekrabbers, fabrieksaanlegte, sportvelde en ander noodsaaklike strukture en allerlei fasiliteite te plaas. Dikwels ignoreer hy die moontlikhede om minstens dele van dié natuurlike omgewing te behou en in harmonie met wat hy oprig, te integreer. Die gevolg hiervan is die verskyning van die dorre betonoerwoud waarteen die mens self mettertyd in opstand kom.

Deur vroegtydige beplanning en oorlegpleging tussen landskapsbeplanner, ingenieur, ekoloog, stads- en streeksbeplanner, verkeersowerheid, argitek en gebruiker van 'n bepaalde ruimte kan die mens die skending en selfs vernietiging van die natuurlike omgewing voorkom en daarvoor sorg dat hy 'n bepaalde gebied tot 'n harmonieuse eenheid van natuur en kultuur inrig. So 'n gebied is 'n plek van toevlug en bewaring vir dier en plant en terselfdertyd 'n plek waar die mens die kalmerende en rus-

Epilogue

Man's task of conservation and cultivation might well be more demanding and entail greater commitment in urban areas than in the countryside.

Whereas in the country much of the natural flora and fauna can be left untended without any conscious human intervention, the city dweller is obliged to modify the natural environment to permit him to live and work according to his accustomed life style. He is compelled to deforest tracts of land, divert the natural flow of water, fill valleys, level hills, and introduce roads, railway lines, cables, pylons, skyscrapers, factories, sport fields and other essential structures and facilities where once plant and animal life flourished undisturbed. Often he ignores opportunities of preserving at least parts of the natural environment and harmoniously integrating these with his own structures. The result is a barren concrete jungle against which man himself eventually rebels.

Through timeous planning and consultation between landscape planners, engineers, ecologists, town and regional planners, traffic authorities, architects and individual space users, man can prevent the scarring and even destruction of the natural environment and constitute the area into a harmonious union between nature and culture. Such an area is a haven where flora and fauna are conserved, a refuge where man can enjoy the serenity and soothing effects of nature – a place to breathe freely, esthetically pleasing, where he can bask in the vibrant silence of creation.

One of the points of conservation and cultivation is that when

skeppende werking van die natuur kan beleef — 'n plek waar hy nog vry kan asemhaal, wat esteties strelend is en waar hy die gelaaiide stilte van die skepping kan geniet.

Die sin van die bewarings- en bewerkingsopdrag kom onder meer daarin na vore dat waar die mens dele van die natuurlike milieu behou, bewaar en herstel, behou hy vir hom noodsaaklike linge tussen die rook van skoorstene en die lug- en lig-afskermende spitse van toringblokke. Elke stukkie behoue natuurveld is derhalwe vir die mens nie net 'n aangename plek van rustigheid en skoonheid in estetiese sin nie, maar ook van noodsaaklikheid in biologiese sin.

Dat 'n universiteit hom met die bewaringsopdrag bemoei, vorm enersyds deel van sy verpligting om sy kampus vir studente en personeel 'n aangename en rustige plek van werk en studie te maak. En andersyds vorm dit deel van sy verpligting tot gemeenskapsdiens. Hiermee help hy nie net om 'n stad te verfraai en die natuur-erfenis bewaar nie, maar stel hy ook 'n voorbeeld in ooreenstemming met wat hy in verskillende wetenskaplike dissiplines, hetsy van geesteswetenskaplike of van natuurwetenskaplike inslag, aangaande die eise en noodsaak van die behoud van 'n menswaardige lewensruimte onderrig en verkondig.

'n Universiteit wat maar net bome wegkap en voëls en ander diere eenvoudig en doodluiters hulle plek ontsê in sy nood om 'n kampus te kan vestig, negeer nie net die bewaringsopdrag nie, maar skep vir studente en personeel en die gemeenskap 'n barre betonbos waarin die mens nie werklik tuis kan voel nie. Daarteenoor is 'n kampus waarin die bewaarde wondere van flora en fauna 'n besondere plek inneem, 'n trotse besitting van die gemeenskap en toevlugsoord vir diegene wat soms moet loskom van die vermoeiing van die gees.

Universiteite oral in die wêreld skenk egter dikwels besondere aandag aan die bewaring van die natuurlike omgewing. Daar word dikwels ook gepoog om soveel moontlik van die natuurlike milieu op die kampus te bewaar en te behou. Die Universiteit van Gre-

man preserves, conserves and restores parts of the natural environment he retains vital "lungs" among the smoke of chimney stacks and the light and air barricades of towering buildings. Hence every patch of natural veld that is preserved is not merely a tranquil beauty spot in an esthetic sense, but a biological necessity.

For a university to concern itself with conservation is part of its obligation to make its campus a pleasant, peaceful place of work and study for staff and students. It is also part of its community service. Not only does it help to beautify the city and preserve our natural heritage, but it sets an example in keeping with its message concerning the requirements for and need of maintaining a proper life-space which is taught and proclaimed by both the human and the physical sciences.

A university that heedlessly hews down trees and flagrantly denies birds and beasts a habitat, is not merely ignoring its conservation duty, but is creating a bleak concrete jungle for its staff and students, a campus where man cannot really feel at home. By contrast, a campus boasting carefully conserved wonders of plant and animal life is a prized treasure for the community and a haven for those who need to escape from weariness of the mind.

All over the world universities tend to take an interest in conserving the natural environment and seek to preserve it on their campuses wherever possible. A famous instance of a concerted conservation effort is the garden of alpine flora at the University of Grenoble, near Lauterats in France. A fine example of tree conservation by a university is the arboretum of the University of Wisconsin. The campus of the University of Port Elizabeth has been declared a nature reserve, and the University of South Africa is renowned for its special concern with the conservation of indigenous shrubs and trees, especially cycads.

Unisa can be justly proud of its past achievement in nature conservation on its campus, and integrating this with the adjacent complexes of Fountains Valley, Muckleneuk Ridge and Groenkloof.

noble, naby Lauterat in Frankryk, is met sy tuin van alpeplante 'n bekende voorbeeld van 'n doelbewuste bewaringspoging. Die arboretum, of botaniese boomtuin, van die Universiteit van Wisconsin is op sy beurt 'n goeie voorbeeld van boombewaring wat deur 'n universiteit onderneem is. Die Universiteit van Port Elizabeth se kampus is tot natuurreservaat verklaar. Die Universiteit van Suid-Afrika is lankal reeds bekend vir die besondere aandag wat onder meer aan die bewaring van inheemse bome en struie en veral broodbome bestee word.

Met wat Unisa reeds bereik het ten aansien van natuurbewaring op sy kampus en die inskakeling waarvan by die omliggende komplekse van die Fonteinedal, Muckleneukrant en Groenkloof, is daar reeds rede om trots te wees.

Hierdie trots plaas egter 'n verpligting op diegene wat verder verantwoordelik sal wees vir instandhouding, wysiging en uitbreiding van die kampus. Die skrywer koester derhalwe die hoop dat hierdie publikasie nie net bruikbaar bevind sal word op grond van interessante gegewens aangaande die natuur op en rondom die Unisa-kampus nie, maar veral as aansporing sal dien om die beloning van natuurbewaringswerk wat reeds onderneem is te bevestig en die uitbreiding daarvan te bevorder.

'n Mens wonder soms of die Griekse wysgere nie juis die tuin van Akademos as plek van onderrig benut het nie, omdat die mens nog maar altyd besef dat perspektief en sielevrede maar net dáár gevind kan word waar nog 'n afskemering van die Paradys wat eenmaal was en weer sal kom, te vinde is.

Such a pride implies commitment on the part of those in charge of maintaining, modifying and expanding the campus. The author hopes that this publication will not only prove a useful source of interesting information about nature on and around Unisa's campus, but more particularly that it will act as an incentive to assure the rewards of the conservation accomplished so far and promote further efforts and expansion.

One sometimes wonders whether the Greek philosophers' choice of the Academy garden as their teaching venue was not perhaps prompted by the age-old realization that man can only achieve perspective and peace of mind in places where he can still discern a glimmering of the Paradise that existed once and will come again.

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Bylaes

(Nommers tussen hakies verteenwoordig die spesifieke boom- of voëlsoort. Ander nommers verwys na die betrokke bladsye.)

BYLAE A

Wetenskaplike name

BOME, STRUIKE EN ANDER PLANTE

Acacia, 57, 58, 60, 62, 64, 74
A. albida (159), 57
A. burkei (161), 57
A. caffra (162), 57, 58
A. galpini (166), 58, 60
A. gerrardii var. *gerrardii* (167), 60
A. hebeclada subsp. *hebeclada* (170), 60
A. karroo (172), 20, 60, 62
A. nigrescens (178), 62, 64
A. sieberana var. *woodii* (187), 64
A. tortilis subsp. *heteracantha* (188), 64
A. xantophloea (189), 64, 66
AITONIACEAE, 77
Aitonia capensis (295), 77
Albizia, 57
Aloe, 46
A. africana (28.2), 48
A. aloëides (28.3), 48
A. arborescens (28.1), 48

AFRIKAANS

Doringbome
Anaboom
Swartapiesdoring
Gewone Haakdoring
Apiesdoring
Rooidoring
Trassiedoring
Soetdoring
Knoppiesdoring
Papierbasdoring
Haak-en-steek
Koorsboom
Klapperbos-familie
Klapperbos
Valsdoringbome
Aalwyne
Uitenhaagsaalwyn
Graskopaalwyn
Kransaalwyn

Appendices

(Numbers in brackets represent the specific kind of tree or bird. Other numbers refer to the pages concerned.)

APPENDIX A

Scientific names

TREES, SHRUBS AND OTHER PLANTS

ENGLISH

Thorn Trees
Ana Tree
Black Monkey Thorn
Common Hook Thorn
Monkey Thorn
Red Thorn
Candle Thorn
Sweet Thorn
Knob Thorn
Paperbark Thorn
Umbrella Thorn
Fever Tree
Chinese Lantern Family
Chinese Lantern
False-thorn Trees
Aloes
Uitenhage Aloe
Graskop Aloe
Krantz Aloe

A. candelabrum (28.5), 48
A. castanea (28.6), 48
A. ferox (29.2), 48
A. marlothii (29.5), 48
A. rupestris (30.3), 48
A. spectabilis (30.6), 48
A. thraskii (30.7), 48
 Alsophila, 36
Alsophila capensis (2), 38
A. dregei (1), 28, 34, 36, 38
 ANACARDIACEAE, 82
 ARALIACEAE, 102
 ASTERACEAE, 119

Kandelaaraalwyn
 Katstertaalwyn
 Bitteraalwyn
 Bergaalwyn
 Borselaalwyn
 Natalaalwyn
 Strandaalwyn
 Boomvarings
 Bosboomvaring
 Gewone Boomvaring
 Mango-familie
 Kiepersol-familie
 Madeliefie-familie

Candelabra Aloe
 Cat's-tail Aloe
 Bitter Aloe
 Mountain Aloe
 Bottlebrush Aloe
 Natal Aloe
 Strand Aloe
 Tree Ferns
 Forest Tree Fern
 Common Tree Fern
 Mango family
 Cabbage-tree Family
 Daisy Family

Bauhinia, 44, 68, 70
B. galpinii (208.2), 68, 70
Bequaertiodendron magalismontanum (581), 16, 108
Bersama, 85
 BIGNONIACEAE, 114
Bolusanthus speciosus (222), 71
 BORAGINACEAE, 112
Bowenia, 38
Brachylaena, 120
B. rotundata (730), 120
Buddleja, 110
Buddleja salviifolia (637), 112
Burkea africana (197), 66

Beesklobosse
 Vlam-van-die-Vlakte
 Stamvrug
 Witlesenhoutbome
 Jakaranda-familie
 Vanwykshout
 Komkommerkruid-familie
 Noord-Australiese Broodbome
 Vaalbosse
 Bergvaalbos
 Wildesaliebome
 Saliehout
 Wildesering

Neat's Foot Bushes
 Pride-of-De Kaap
 Transvaal Milkplum
 White Ashes
 Jacaranda Family
 Tree Wistaria
 Borage Family
 North Australian Cycads
 Wild Silver Oaks
 Mountain Silver Oak
 Wild Sage Trees
 Sagewood
 Wild Seringa

CAESALPINIACEAE, 56, 66
Canthium, 118, 119
C. mundianum (710), 118
Celtis, 50

Flamboyant-familie
 Bokdrol-, Kwar- en Klipelsbome
 Klipels
 Witstinkhoutbome

Flamboyant Family
 Turkey-berry, Quar and Rock Alder Trees
 Rock Alder
 White Stinkwood Trees

C. africana (39), 20, 51
Ceratozamia, 38
Chaetachme, 50
 CLUSIACEAE, 96
Coffea arabica, 116
Colophospermum mopane (198), 66, 68
 COMBRETACEAE, 100
Combretum, 84, 85, 100
C. erythrophyllum (536), 16, 100
C. molle (537), 100
C. zeyheri (546), 16, 102
 COMPOSITAE, 119
 CUPRESSACEAE, 46
Cussonia, 104
C. paniculata (563), 34, 104
C. spicata (564), 104
Cyathea, 36
C. dregei (1), 34
 CYATHEACEAE, 36
Cyphostemma juttae (456.1), 30, 90

Dais cotinifolia (521), 14, 28, 34, 98
Dichrostachys, 57
Dioon, 38
Dodonea, 84, 85
Dodonaea viscosa var. *angustifolia* (437.1), 84
Dodonaea viscosa var. *viscosa* (437), 84, 85
Dombeya, 92
D. rotundifolia var. *rotundifolia* (471), 16, 92
Dovyalis caffra (507), 97

Eaidherbia albida, 57
Encephalartos, 32, 38, 40

Witstinkhout
 Mexikaanse Broodbome
 Doringolms
 Geelmeelkhou-familie
 Koffieboom
 Mopanie
 Boswilg-familie
 Boswilge
 Rivervaderlandswilg
 Fluweelboswilg
 Raasblaar
 Madeliefie-familie
 Sipres-familie
 Kiepersolbome
 Bergkiepersol
 Gewone Kiepersol
 Boomvarings
 Gewone Boomvaring
 Boomvaring-familie
 Basterkobas

Basboom
 Sekelbosse
 Sentraal-Amerikaanse Broodbome
 Sandolienbosse
 Kaapse Sandolien
 Gewone Sandolien
 Drolpeerbome
 Gewone Drolpeer
 Kei-appel

Anaboom
 Broodbome

White Stinkwood
 Mexican Cycads
 Thorny Elm Trees
 Mangosteen Family
 Coffee Tree
 Mopane
 Bushwillow Family
 Bushwillows
 River Bushwillow
 Velvet Bushwillow
 Large-fruited Bushwillow
 Daisy Maily
 Cypress Family
 Cabbage Trees
 Mountain Cabbage Tree
 Common Cabbage Tree
 Tree Ferns
 Common Tree Fern
 Tree Fern Family
 Bastard Cobas

Pompon Tree
 Sickie Bushes
 Central American Cycads
 Sand Olive Bushes
 Cape Sand Olive
 Common Sand Olive
 Wild Pear Trees
 Common Wild Pear
 Kei-apple

Ana Tree
 African Cycads

E. altensteinii (3), 42
E. arenarius, 40, 42
E. caffer, 42
E. cupidus, 42
E. cycadifolius, 42
E. eugene-maraisii (3.1), 40, 42
E. ferox, 40, 42
E. friderici-guilielmi (4), 42
E. ghellinckii (5), 42
E. heenanii (14.1), 42
E. horridus, 42
E. humilis, 42
E. inopinus (5.1), 42
E. laevifolius (6), 42
E. lanatus (5.2), 40, 42
E. latifrons (7), 42
E. lebomboensis (8), 40, 42
E. lehmannii (8.1), 42
E. longifolius (9), 42
E. natalensis (10), 42
E. ngoyanus, 42
E. paucidentatus (11), 42
E. princeps (12), 42
E. transvenosus (13), 40, 42
E. trispinosus, 42
E. umbeluziensis, 40, 42
E. villosus, 40, 42
E. woodii (14), 42
 EBENACEAE, 108
Ehretia, 112
E. rigida (657), 112
Ekebergia capensis (298), 34, 78
Elephantorrhiza, 57
Ensete, 48

Oos-Kaapse Broodboom
 Duinebroodboom
 Hottentotsbrood
 Pelgrimsrustbroodboom
 Winterbergbroodboom
 Waterbergbroodboom
 Broodpalm
 Withaarbroodboom
 Drakensbergbroodboom
 Wollerige Broodboom
 Uitenhage Broodboom
 Dwergbroodboom
 Lydenburgse Broodboom
 Kaapsehoopse Broodboom
 Olifantsrivierbroodboom
 Albanybroodboom
 Lebombobroodboom
 Karoobroodboom
 Suurbergbroodboom
 Natalbroodboom
 Ngoyebroodboom
 Barbertonse Broodboom
 Keibroodboom
 Modjadjibroodboom
 Visrivierbroodboom
 Umbeluzibroodboom
 Meerstammige Broodboom
 Wood-se-broodboom
 Ebbehout-familie
 Stamperhoutbosse
 Deurmekaarbos
 Essenhout
 Krulboontjiebosse
 Gewone Wildepiesangs

Eastern Cape Cycad
 Dune Cycad
 Hottentot's Bread
 Pilgrim's Rest Cycad
 Winterberg Cycad
 Waterberg Cycad
 Breadpalm
 White-haired Cycad
 Drakensberg Cycad
 Woolly Cycad
 Uitenhage Cycad
 Dwarf Cycad
 Lydenburg Cycad
 Kaapsehoop Cycad
 Olifants River Cycad
 Albany Cycad
 Lebombo Cycad
 Karroo Cycad
 Suurberg Cycad
 Natal Cycad
 Ngoye Cycad
 Barberton Cycad
 Kei Cycad
 Modjadji Cycad
 Fish River Cycad
 Umbeluzi Cycad
 Pluri-stemmed Cycad
 Wood's Cycad
 Ebony Family
 Stamperwood Bushes
 Puzzle Bush
 Cape Ash
 Curl-bean Bushes
 Common Wild Bananas

E. ventricosum (31), 28, 34, 48
Entada, 57
Erythrina, 34, 74
E. acanthocarpa, 74
E. humeana (243.1), 28, 74
E. latissima (244), 74
E. lysistemon (245), 14, 74, 75
E. zeyheri, 74, 75
Euphorbia, 80
E. cooperi (346), 80
E. ingens (351), 80
 EUPHORBIACEAE, 80

FABACEAE, 56, 71, 74
Fagara capensis (253), 75, 76
Ficus, 52
F. burkei (48), 52
F. carica, 52
F. ingens (55), 52
F. petersii (48), 52
F. sycomorus (66), 52
Flacourtia, 97
 FLACOURTIACEAE, 97

Garcinia, 96
Gardenia, 118
G. spatulifolia (691), 118
Grewia, 91
G. occidentalis (463), 91
Greyia, 85
G. sutherlandii (446), 85
 GREYIACEAE, 85
 GUTTIFERAE, 96

Afrikaanse Wildepiesang
 Rivierboontjiebosse
 Koraalbome
 Tamboekiedoring
 Kleinkoraalboom
 Breëblaarkoraalboom
 Gewone Koraalboom
 Ploegbreker
 Nabome en Melkbosse
 Transvaalse Kandelaarnaboom
 Gewone Naboom
 Naboom-familie

Ertjie-familie
 Kleinperdepram
 Vyebome
 Gewone Wildevy
 Gewone Vy
 Rooiblaarrotsvy
 Gewone Wildevy
 Gewone Trosvy
 Goewerneurspruimbome
 Wildeperske-familie

Geelmelkhoutbome
 Katjiepierings
 Transvaalkatjiepieping
 Wilderosyntjiebosse
 Kruisbessie
 Baakhoutbome
 Natalse Baakhout
 Baakhout-familie
 Geelmelkhout-familie

African Wild Banana
 Jack's Beanstalk Bushes
 Coral Trees
 Tambuki Thorn
 Dwarf Coral Tree
 Broad-leaved Coral Tree
 Common Coral Tree
 Red Cardinal
 Tree Euphorbias and Milk-bushes
 Transvaal Candelabra Tree
 Common Tree Euphorbia
 Euphorbia Family

Pea Family
 Small Knobwood
 Fig Trees
 Common Wild Fig
 Common Fig
 Red-leaved Rock Fig
 Common Wild Fig
 Sycamore Fig
 Governor's Plum Trees
 Wild peach Family

Mangosteens
 Gardenias
 Transvaal Gardenia
 Wild Raisin Bushes
 Cross-berry
 Wild Bottlebrushes
 Natal Bottlebrush
 Wild Bottlebrush Family
 Mangosteen Family

Haemanthus (= *Scadoxys*), 34
Harpephyllum, 82
Helianthus annuus, 119, 120
Hemitelia, 36
H. capensis, 38
Heteropyxis natalensis (455), 88
Hypericum, 96
H. revolutum (484), 16, 96

Jacaranda mimosifolia, 114

Kigelia africana (= *pinnata*) (678), 116
Kirkia wilmsii (269), 76
Kniphofia, 34

LABIATAE, 113
 LAMIACEAE, 113
Leguminales, 74
 LEGUMINOSAE, 56
Leonotis leonurus, 34, 113
Lepidozamia, 38
 LILIACEAE, 46
 LOGANIACEAE, 110
 LORANTHACEAE, 62
Loranthus rubromarginatus, 62

Macrozamia, 38
 MELIACEAE, 78
 MELIANTHACEAE, 85
Melianthus, 85

Poeierkwasse
 Wilde Pruime
 Sonneblom
 Boomvarings
 Bosboomvaring
 Laventelboom
 Vlieëpisbosse
 Kerriebos

Jakaranda

Worsboom
 Bergsering
 Vuurpyle

Salie-familie
 Salie-familie
 Peulvrugbome
 Peulvrug-familie
 Wildedagga
 Oos-Australiese Broodbome
 Lelie-familie
 Wildevlier-familie
 Voëlent-familie
 Rooi Voëlent

Suid-Australiese Broodbome
 Mahonie-familie
 Kruidjie-roer-my-nie-familie
 Kruidjie-roer-my-nie-soorte

Paint Brushes
 Wild Plums
 Sunflower
 Slender Tree Ferns
 Forest Tree Fern
 Lavender Tree
 St. John's Worts
 Curry Bush

Jacaranda

Sausage Tree
 Mountain Seringa
 Red-hot Pokers

Salvia Family
 Salvia Family
 Legume Trees
 Legume Family
 Minaret Flower
 East Australian Cycads
 Lily Family
 Wild Elder Family
 Mistletoe Family
 Red Mistletoe

South African Cycads
 Mahogany Family
 Honeyflower Family
 Honey Flowers

Microcycas, 38
Millettia grandis (227), 72
Mimosa, 57
MIMOSACEAE, 56, 57
MORACEAE, 51
Musa, 48
MUSACEAE, 48
MYRTACEAE, 88

Kubaanse Broodbome
Omsambeet (Ysterhout)
Doringbome
Doringboom-familie
Moerbei-familie
Piesangsoorte
Piesang-familie
Mirte-familie

Cuban Cycads
Umzimbeet (Ironwood)
Thorn Trees
Thorn-tree Family
Mulberry Family
Banana Species
Banana Family
Myrtle Family

Neptunia, 57
Newtonia, 57
Nymania capensis (295), 77
Nymphaea, 28, 34

Waterskaamkruid
Lebombowattels
Klapperbos
Waterlelies

Water-sensitive Worts
Lebombo Wattles
Chinese Lanterns
Water-lilies

Ochna, 94
O. pulchra (483), 16, 18, 96
OCHNACEAE, 94
Ocotea bullata (118), 51
Olea, 109
Olea africana (617), 20, 109
OLEACEAE, 108
Ozoroa, 82

Rooihoutbome
Lekkerbreek
Rooihout-familie
Stinkhout
Olyfbome
Olienhout
Olywe-familie
Harpuisbome

Wild Plane Trees
Peeling Plane
Wild Plane Family
Stinkwood
Olive Trees
Wild Olive
Olive Family
Resin Trees

PAPILIONACEAE, 56
Pavetta zeyheri (722), 119
Peltophorum africanum (215), 70
Plumbago, 106
PLUMBAGINACEAE, 106
Plumbago capensis, 106
PODOCARPACEAE, 42
Podocarpus, 34, 42

Ertjie-familie
Fynblaarbruidsbos
Huilboom
Kaapse Loodkruidbosse
Plumbago-familie
Kaapse Loodkruid
Geelhout-familie
Geelhoutbome

Pea Family
Small-leaved Bride's Bush
Weeping Wattle
Cape Leadwort Bushes
Plumbago Family
Cape Leadwort
Yellowwood Family
Yellowwoods

P. falcatus (16), 44
P. henkelii (17), 44
P. latifolius (18), 44
 PORTULACACEAE, 56
Portulacaria, 56
P. afra (104), 56
 PRIMULACEAE, 106
Primula, 28

Protea, 8, 54
P. caffra (87), 54
P. cynaroides, 54
P. longiflora (90.3), 54
P. neriifolia (93.1), 54
P. repens (94.2), 54
 PROTEACEAE, 54
Pterocarpus, 72
P. angolensis (236), 72
P. rotundifolius subsp. *rotundifolius* (237), 72, 74

RHAMNACEAE, 86
Rhus, 82
R. amerina (387), 83
R. lancea (386), 83
R. leptodictya (387), 83
R. pyroides (392), 83
R. zeyheri (396.1), 83, 84
 RUBIACEAE, 116
 RUTACEAE, 75

SAPINDACEAE, 84
 SAPOTACEAE, 106
Scadoxys, 34

Outeniekwageelhout
 Henkel-se-geelhout
 Opregte Geelhout
 Porselein-familie
 Spekboomsoorte
 Spekboom
 Primula-familie
 Blouselblommetjies
 Suikerbosse
 Gewone Suikerbos
 Groot-suikerkan
 Langknopsuikerbos
 Blousuikerbos
 Opregte Suikerbos
 Protea-familie
 Wildekiaatbome
 Kiaat
 Doppekiaat

Blinkblaar-familie
 Kareebome en Taaibosse
 Bergkaree
 Karee
 Bergkaree
 Gewone Taaibos
 Bloutaaibos
 Katjiepiering-familie
 Boegoe-familie

Lietsjie-familie
 Melkhout-familie
 Poerkerwasse

Outeniqua Yellowwood
 Henkel's Yellowwood
 Real Yellowwood
 Purslane Family
 Pork Bush Species
 Porkbush
 Primula Family
 Primroses
 Sugarbushes
 Common Sugarbush
 Giant Protea
 Long-bud Sugarbush
 Blue Sugarbush
 Real Sugarbush
 Protea Family
 Wild Teak Trees
 Transvaal Teak
 Round-leaved Teak

Dogwood Family
 Karree Trees and Wild Currants
 Mountain Karree
 Karree
 Mountain Karree
 Common Wild Currant
 Blue Currant
 Gardenia Family
 Buchu Family

Litchi Family
 Milkwood Family
 Paint Brushes

Schefflera, 102, 104
Schizostylis, 34
Schotia brachypetala (202), 68
Sclerocarya, 82
S. caffra (360), 82, 83
Seemannaralia, 102, 104
 SIMAROUBACEAE, 76
Stenotaphrum secundatum, 34
Sterculia, 92
S. murex (475), 94
 STERCULIACEAE, 92
Strychnos, 110
S. cocculoides (623), 110
S. spinosa (629), 110

Tarchonanthus, 120
Tarchonanthus camphoratus (733), 120
Tecomaria, 44
T. capensis (673.1), 114
Terminalia, 100, 102
T. sericea (551), 102
Theobroma cacao, 92
 THYMELAEACEAE, 98
Tilia, 91
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Trema, 50

ULMACEAE, 50

Vangueria infausta (702), 18, 118
Veltheimia, 34

Basterkiepersolle
 Kafferlelie
 Huilboerboom
 Maroela
 Maroela
 Basterkiepersolle
 Hemelboom-familie
 Buffelskweek
 Sterkastaiingbome
 Laeveldkastaiing
 Sterkastaiing-familie
 Bitterbessie- en Klapperbome
 Kurkklapper
 Groenklapper

Wilde Kanferbome
 Kanferbos
 Kanferfoelies
 Kaapse Kanferfoelie
 Trosblaarbome
 Vaalboom
 Kakaoboom
 Gonna-familie
 Lindebome
 Linde-familie
 Hophoutbome

Olm-familie

Wildemispel
 Sandelies

Bastard Cabbage Trees
 Kaffir Lily
 Weeping Boer-bean
 Marula
 Marula
 Bastard Cabbage Trees
 Tree-of-heaven Family
 St Augustine
 Star-chestnut Trees
 Lowveld Chestnut
 Star-chestnut Family
 Bitterberry and Monkey Orange Trees
 Corky Monkey Orange
 Green Monkey Orange

Wild Camphor Trees
 Camphor Bush
 Honeysuckles
 Cape Honeysuckle
 Cluster-leaf Trees
 Silver Cluster-leaf
 Cacao Tree
 Gonna Family
 Linden Trees
 Linden Family
 Pigeonwood Trees

Elm Family

Wild Medlar
 Sand Lilies

Virgilia, 71
V. oroboides (221), 34, 71
Viscum rotundifolium, 62
VITACEAE, 90

Keurbome
Keurboom
Voëlent
Druwe-familie

Blossom Trees
Blossom Tree
Mistletoe
Grape Family

Widdringtonia, 46
W. nodiflora (20), 46
Wisteria, 71

Kaapse Sederbome
Bergsipres
Bloureën

Cape Cedars
Mountain Cypress
Wistaria

Xerocladia, 57
Xylia, 57

Droeëdoringbome
Sandessenhoutbome

Cat Thorn Trees
Sand Ashes

Zamia, 38
Zanthoxylum capense (253), 75, 76
ZAMIACEAE, 38
Ziziphus mucronata (447), 86

Wes-Indiese Broodbome
Kleinperdepram
Sikadee-familie
Blinkblaar-wag-'n-bietjie

West Indian Cycads
Small Knobwood
Cycad Family
Buffalo Thorn

BYLAE B

Afrikaanse gewone name

BOME, STRUIKE EN ANDER PLANTE

Afrikaanse Wildepiesang (*Ensete ventricosum*), 28, 34, 48

Anaboom (*Acacia albida*), 57

Apiesdoring (*Acacia galpinii*), 58

Baakhout-familie (*Greyiaceae*), 85

Basboom (*Dais continifolia*), 14, 28, 98

Basterkobas (*Cyphostemma juttae*), 30, 90

Bergaalwyn (*Aloe marlothii*), 48

Bergkaree (*Rhus leptodictya*), 83

Bergkiepersol (*Cussonia paniculata*), 104

Bergsering (*Kirkia wilmsii*), 76, 77

Bergsipres (*Widdringtonia nodiflora*), 46

Bergvaalbos (*Brachylaena rotundata*), 120

Bitteraalwyn (*Aloe ferox*), 48

Blinkblaar-familie (*Rhamnaceae*), 86

Blinkblaar-wag'n-bietjie (*Ziziphus mucronata*), 22, 86

Bloekom-familie (*Myrtaceae*), 88

Blouhaakdoring (*Acacia hebeclada* subsp. *hebeclada*), 60

Blouselblommetjies (*Primula*), 28

Blousuikerbos (*Protea neriifolia*), 54

Bloutaaibos (*Rhus zeyheri*), 84

Boegoe-familie (*Rutaceae*), 75

Boomvaring (*Hemitelia*), 36

Boomvaring-familie (*Cyatheaceae*), 36

Borselaalwyn (*Aloe rupestris*), 48

Bosboomvaring (*Alsophila capensis*), 38

Boswilg-familie (*Combretaceae*), 100

Botterboom (*Cyphostemma juttae*), 90

Broodboom (*Encephalartos*), 30, 32, 38

Buffelskweek (*Stenotaphrum secundatum*), 34

Deurmekaarbos (*Ehretia rigida*), 112

Dopperkiaat (*Pterocarpus rotundifolius*), 74

Doringboom-familie (*Mimosaceae*), 57

Druwe-familie (*Vitaceae*), 90

Ertjie-familie (*Fabaceae*), 71

Essenhout (*Ekebergia capensis*), 34, 78

Flambojant-familie (*Caesalpiniaceae*), 66

Fluweelboswilg (*Combretum molle*), 100

Fynblaarbruidsbos (*Pavetta zeyheri*), 119

Geelhoutbome (*Podocarpus*), 34, 44, 60

Geelhout-familie (*Podocarpaceae*), 42

Geelmelkhout-familie (*Clusiaceae*), 96

Gewone Boomvaring (*Alsophila dregei*), 28, 34, 36, 38

Gewone Drolpeer (*Dombeya rotundifolia* var. *rotundifolia*), 16, 92

Gewone Haakdoring (*Acacia caffra*), 58

Gewone Kiepersol (*Cussonia spicata*), 104

Gewone Koraalboom (*Erythrina lysistemon*), 14, 75

Gewone Naboom (*Euphorbia ingens*), 80

Gewone Sandolien (*Dodonaea viscosa* var. *viscosa*), 84, 85

Gewone Suikerbos (*Protea caffra*), 16, 54

Gewone Trosvy (*Ficus sycamorus*), 52

Gewone Taaibos (*Rhus pyroides*), 83

Gewone Vy (*Ficus carica*), 52

Gewone Wildevy (*Ficus burkei* = *Ficus petersii*), 52

Gonna-familie (*Thymelaeaceae*), 98

Graskopaalwyn (*Aloe aloöides*), 48

Groenklapper (*Strychnos spinosa*), 110

Groot-suikerkan (*Protea cynaroides*), 54

Haak-en-steek (*Acacia tortilis* subsp. *heteracantha*), 64

APPENDIX B

Afrikaans common names

TREES, SHRUBS AND OTHER PLANTS

Harpuisbome (*Ozoroa*), 82
 Hemelboom-familie (*Simaroubaceae*), 76
 Henkel-se-geelhout (*Podocarpus henkelii*), 44
 Hoëveldse Kiepersol (*Cussonia paniculata*), 34
 Huilboerboon (*Scotia brachypetala*), 68
 Huilboom (*Peltophorum africanum*), 70

 Jakaranda-familie (*Bignoniaceae*), 114

 Kaapse Kanferfoelie (*Tecomaria capensis*), 114
 Kaapse Loodkruid (*Plumbago capensis*), 106
 Kaapse Sandolien (*Dodonaea viscosa* var. *angustifolia*), 85
 Kafferboom (*Erythrina*), 74
 Kafferlelie (*Schizostylis*), 34
 Kakaoboorn (*Theobroma cacao*), 92
 Kandelaaraalwyn (*Aloe candelabrum*), 48
 Kanferbos (*Tarchonanthus camphoratus*), 120
 Kannabas (*Dais cotinifolia*), 34
 Kareebome en Taaibosse (*Rhus*), 82, 83, 84
 Katjeepering-familie (*Rubiaceae*), 116
 Katstertaalwyn (*Aloe castanea*), 48
 Kei-appel (*Dovyalis caffra*), 97
 Kerriebos (*Hypericum revolutum*), 16, 96
 Keurbome (*Virgilia*), 71
 Keurboom (*Virgilia oroboides*), 34
 Kiaat (*Pterocarpus angolensis*), 72, 74

Kiepersol-familie (*Araliaceae*), 102
 Klapperbos (*Nymania capensis*), 77
 Klapperbos-familie (*Aitoniaceae*), 77
 Kleinkoraalboom (*Erythrina humeana*), 28, 74
 Kleinperdepram (*Zanthoxylum capense*), 76
 Klipels (*Canthium mundianum*), 118
 Knoppiesdoring (*Acacia nigrescens*), 62
 Koejawels (*Myrtaceae*), 88
 Komkommerkruid-familie (*Boraginaceae*), 112
 Koorsboom (*Acacia xanthophloea*), 66
 Koraalboom (*Erythrina*), 34, 74, 75
 Kransaalwyn (*Aloe arborescens*), 48
 Kruisbessie (*Grewia occidentalis*), 91
 Kurkklapper (*Strychnos cocculoides*), 110

 Laeveldkastaang (*Sterculia murex*), 94
 Langknopsuikerbos (*Protea longiflora*), 54
 Laventelboom (*Heteropyxis natalensis*), 88
 Lekkerbreek (*Ochna pulchra*), 16, 96
 Leeubekkie-familie (*Pedaliaceae*), 114
 Lelie-familie (*Liliaceae*), 46
 Lemoen-familie (*Rutaceae*), 76
 Lietsjie-familie (*Sapindaceae*), 84
 Lindebome (*Tilia*), 91
 Linde-familie (*Tiliaceae*), 91

 Madeliefie-familie (*Asteraceae*), 119
 Mahonie-familie (*Meliaceae*), 78
 Mango-familie (*Anacardiaceae*), 82
 Maroela (*Sclerocarya*), 82, 97

Melkhout-familie (*Sapotaceae*), 106
 Mimosa-familie (*Mimosaceae*), 66
 Mirtebome (*Myrtaceae*), 88
 Mirte-familie (*Myrtaceae*), 88
 Moerbeifamilie (*Moraceae*), 51
 Mopanie (*Colophospermum mopane*), 68

 Naboom-familie (*Euphorbiaceae*), 80
 Natalaalwyn (*Aloe spectabilis*), 48
 Natalse Baakhout (*Greyia sutherlandii*), 85
 Nooiensbeen (*Cyphostemma juttiae*), 90

 Olienhout (*Olea africana*), 20, 109
 Olm-familie (*Ulmaceae*), 50
 Olywe-familie (*Oleaceae*), 108
 Omsambeet (*Millettia grandis*), 72
 Opregte Geelhout (*Podocarpus latifolius*), 44
 Opregte Suikerbos (*Protea repens*), 54
 Outeniekwageelhout (*Podocarpus falcatus*), 44

 Papierbasdoring (*Acacia sieberana* var. *woodii*), 64
 Peulvrug-familie (*Leguminosae*), 56
 Piesang-familie (*Musaceae*), 48
 Ploegbreker (*Erythrina zeyheri*), 75
 Plumbago-familie (*Plumbaginaceae*), 106
 Poeierkwasse (*Haemanthus*), 34
 Porselein-familie (*Portulacaceae*), 56
 Protea-familie (*Proteaceae*), 54

Raasblaar (*Combretum zeyheri*), 16, 102
 Riviervaderlandswilg (*Combretum erythrophyllum*), 16, 100
 Rooiblaarrotsvy (*Ficus ingens*), 52
 Rooidoring (*Acacia gerrardii* var. *gerrardii*), 60
 Rooihoutbome (*Ochna*), 94
 Rooihout-familie (Ochnaceae), 94

Salie-familie (*Labiatae* = *Lamiaceae*), 113
 Saliehout (*Buddleja salviifolia*), 112
 Sesam-familie (*Pedaliaceae*), 114
 Sikadeë (*Encephalartos*), 38
 Sikadee-familie (*Zamiaceae*), 38
 Sipres-familie (*Cupressaceae*), 46
 Sitrus-familie (*Rutaceae*), 76
 Soetdoring (*Acacia karroo*), 20, 60
 Sonneblom (*Helianthus annuus*), 120
 Spekboom (*Portulacaria afra*), 56
 Stamvrug (*Bequaertiodendron magalismontanum*), 16, 108

Sterkastaiing-familie (*Sterculiaceae*), 92
 Stinkhout (*Ocotea bullata*), 50
 Strandaalwyn (*Aloe thraskii*), 48
 Stuipebos (*Nymaniania capensis*), 77
 Suikerbosse (*Protea*), 8, 54
 Swartapiesdoring (*Acacia burkei*), 57

Taaibos (*Rhus*), 82, 84
 Tamboekiedoring (*Erythrina acantocarpa*), 74
 Tapaalwyn (*Aloe ferox*), 48
 Transvaalkatjiekiering (*Gardenia spatulifolia*), 118
 Transvaalse Kandelaarnaboom (*Euphorbia cooperi*), 80
 Trassiedoring = Trassiebos =
 Blouhaakdoring (*Acacia hebeclada* subsp. *hebeclada*), 60

Uitenhaagsaalwyn (*Aloe africana*), 48

Vaalboom (*Terminalia sericea*), 102
 Vanwykshout (*Bolusanthus speciosus*), 71
 Vergeet-my-nietjies (*Boraginaceae*), 112
 Vlam-van-die-Vlakte (*Bauhinia galpinii*), 70
 Voëlent-familie (*Loranthaceae*), 62
 Vuurpyl (*Kniphofia*), 34

Waterlelies (*Nymphaea*), 28, 34
 Wildedagga (*Leonotis leonurus*), 34, 113
 Wildekiaatbome (*Pterocarpus*), 72
 Wildemispel (*Vangueria infausta*), 18, 118
 Wildeperske-familie (*Flacourtiaceae*), 97
 Wildepruim (*Harpephyllum caffrum*), 82
 Wildesering (*Burkea africana*), 66
 Wildevlier-familie (*Loganiaceae*), 110
 Witstinkhout (*Celtis africana*), 20, 22, 51, 72
 Worsboom (*Kigelia africana*), 116

Ysterhout (*Millettia grandis*), 72

*Engelse gewone name***BOME, STRUIKE EN ANDER PLANTE**

African Wild Banana (*Ensete ventricosum*), 28,
34, 48, 50

Ana Tree (*Acacia albida*), 57

Banana Family (*Musaceae*), 48

Bastard Cobas (*Cyphostemma juttae*), 30, 90

Birdlime Family (*Loranthaceae*), 62

Bitter Aloe (*Aloe ferox*), 48

Black Monkey Thorn (*Acacia burkei*), 57

Blossom Trees (*Virgilia*), 34

Blossom Tree (*Virgilia oroboides*), 71

Blue Currant (*Rhus zeyheri*), 83

Blue Gums (*Myrtaceae*), 88

Blue Sugarbush (*Protea neriifolia*), 54

Borage Family (*Boraginaceae*), 112

Bottlebrush Aloe (*Aloe rupestris*), 48

Buchu Family (*Rutaceae*), 75

Buffalo-thorn (*Ziziphus mucronata*), 22, 86

Bushwillow Family (*Combretaceae*), 100

Cabbage-tree Family (*Araliaceae*), 102

Camphor Bush (*Tarchonanthus*
camphoratus), 120

Candelabra Aloe (*Aloe candelabrum*), 48

Candle Thorn (*Acacia hebeclada* subsp.
hebeclada), 60

Cape Ash (*Ekebergia capensis*), 34, 78

Cape Honeysuckle (*Tecomaria capensis*),
114

Cape Leadwort (*Plumbago capensis*), 106

Cape Sand Olive (*Dodonaea viscosa* var.
angustifolia), 84

Cat's-tail Aloe (*Aloe castanea*), 48

Chinese Lantern (*Nymanina capensis*), 77

Chinese Lantern Family (*Aitoniaceae*), 77

Citrus Family (*Rutaceae*), 76

Cocoa Tree (*Theobroma cacao*), 92

Common Cabbage Tree (*Cussonia spicata*),
34, 104

Common Coral Tree (*Erythrina*
lystemon), 14, 74

Common Hook-Thorn (*Acacia caffra*), 57

Common Sand Olive (*Dodonaea viscosa*
var. *viscosa*), 84

Common Sugarbush (*Protea caffra*), 16, 54

Common Tree Euphorbia (*Euphorbia*
ingens), 80

Common Tree Fern (*Alsophila dregei*), 28,
34, 36, 38

*English common names***TREES, SHRUBS AND OTHER PLANTS**

Common Wild Fig (*Ficus burkei* = *Ficus*
petersii), 52

Common Wild Currant (*Rhus pyroides*), 83

Common Wild Pear (*Dombeya rotundifolia*
var. *rotundifolia*), 16, 92

Coral Trees (*Erythrina*), 34, 74, 75

Corky Monkey Orange (*Strychnos*
cocculoides), 110

Cross-berry (*Grewia occidentalis*), 91

Curry Bush (*Hypericum revolutum*), 16, 96

Cycads (*Encephalartos*), 30, 32, 38

Cycad Family (*Zamiaceae*), 38

Cypress Family (*Cupressaceae*), 46

Daisy Family (*Asteraceae*), 119

Dogwood Family (*Rhamnaceae*), 86

Dwarf Coral Tree (*Erythrina humeana*),
28, 74

Elm Family (*Ulmaceae*), 50

Euphorbia Family (*Euphorbiaceae*), 80

Fever Tree (*Acacia xanthophloea*), 64

Fire-thorned Rhus (*Rhus pyroides*), 83

Flamboyant Family (*Caesalpiniaceae*), 66
Forest Tree Fern (*Alsophila capensis*), 38
Forget-me-nots (*Boraginaceae*), 112

Gardenia Family (*Rubiaceae*), 116
Giant Protea (*Protea cynaroides*), 54
Gonna Family (*Thymelaeaceae*), 98
Grape Family (*Vitaceae*), 90
Graskop Aloe (*Aloe alooides*), 48
Green Monkey Orange (*Strychnos spinosa*), 110
Guavas (*Myrtaceae*), 88

Henkel's Yellowwood (*Podocarpus henkelii*), 44

Ironwood (*Millettia grandis*), 72

Jacaranda Family (*Bignoniaceae*), 114

Kaffir Lily (*Schizostylis*), 34
Kaffir Trees (*Erythrina*), 74
Karree Trees and Wild Currants (*Rhus*), 82, 83
Kei-apple (*Dovyalis caffra*), 97
Knob Thorn (*Acacia nigrescens*), 62
Kranz Aloe (*Aloe arborescens*), 48

Large-fruited Bushwillow (*Combretum zeyheri*), 16, 102
Lavender Tree (*Heteropyxis natalensis*), 88

Legume Family (*Leguminosae*), 56
Lily Family (*Liliaceae*), 46
Linden Family (*Tiliaceae*), 91
Linden Trees (*Tilia*), 91
Litchi Family (*Sapindaceae*), 84
Long-bud Sugarbush (*Protea longiflora*), 54
Lowveld Chestnut (*Sterculia murex*), 94

Mahogany Family (*Meleaceae*), 78
Mango Family (*Anacardiaceae*), 82
Mangosteen Family (*Clusiaceae*), 96
Marula (*Sclerocarya*), 82, 97
Milkwood Family (*Sapotaceae*), 106
Mimosa Family (*Mimosaceae*), 57
Minaret Flower (*Leonotis Leonurus*), 34, 113, 114

Monkey Thorn (*Acacia galpinii*), 58, 60
Mopane Tree (*Colophospermum mopane*), 66

Mountain Aloe (*Aloe marlothii*), 48
Mountain Cypress (*Widdringtonia nodiflora*), 46

Mountain Cabbage Tree (*Cussonia paniculata*), 104
Mountain Karree (*Rhus leptodictya*), 83
Mountain Silver Oak (*Brachylaena rotundata*), 120

Mountain Seringa (*Kirkia wilmsii*), 76
Mouse Bush (*Acacia hebeclada* subsp. *hebeclada*), 60

Mulberry Family (*Moraceae*), 51
Myrtle Trees (*Myrtaceae*), 88
Myrtle Family (*Myrtaceae*), 88

Natal Aloe (*Aloe spectabilis*), 48
Natal Bottlebrush (*Greyia sutherlandii*), 85

Olive Family (*Oleaceae*), 108
Oranges (*Rutaceae*), 76
Outeniqua Yellowwood (*Podocarpus falcatus*), 44

Paint Brushes (*Heimanthus*), 34
Paperbark Thorn (*Acacia sieberana* var. *woodii*), 64
Pea Family (*Fabaceae*), 71
Peeling Plane (*Ochna pulchra*), 18, 96
Plumbago Family (*Plumbaginaceae*), 106
Pompon Tree (*Dais cotinifolia*), 14, 28, 34, 98
Porkbush (*Portulacaria afra*), 56
Pride-of-De-Kaap (*Bauhinia galpinii*), 68, 70
Protea Family (*Proteaceae*), 54
Purslane Family (*Portulacaceae*), 56
Puzzle Bush (*Ehretia rigida*), 113

Quarobe (*Veltheimia*), 34

Real Sugarbush (*Protea repens*), 54
Real Yellowwood (*Podocarpus latifolius*), 44
Red Cardinal (*Erythrina zeyheri*), 75
Red-hot Poker (*Kniphofia*), 34

Red-leaved Rock Fig (*Ficus ingens*), 52
 Red Thorn (*Acacia gerrardii* var. *gerrardii*), 60
 Resin Trees (*Ozoroa*), 82
 River Bushwillow (*Combretum erythrophyllum*), 16, 100
 Rock Alder (*Canthium mundianum*), 118
 Round-leaved Teak (*Pterocarpus rotundifolius*), 72, 73

 Salvia Family (*Labiatae* = *Lamiaceae*), 113
 Sagewood (*Buddleja salviifolia*), 112
 Sausage Tree (*Kigelia africana*), 116
 Sesame Family (*Pedaliaceae*), 114
 Silver Cluster-leaf (*Terminalia sericea*), 102
 Slender Tree Fern (*Hemetelia*), 36
 Small-leaved Bride's Bush (*Pavetta zeyheri*), 119
 Small Knobwood (*Zanthoxylum capense*), 75
 Snapdragon Family (*Pedaliaceae*), 114
 Star-chestnut Family (*Sterculiaceae*), 92
 St Augustine (*Stenotaphrum secundatum*), 34
 Stinkwood (*Ocotea bullata*), 51
 Strand Aloe (*Aloe thraskii*), 48

Sugarbushes (*Protea*), 8, 16, 54
 Sunflower (*Heliantus annuus*), 119
 Sweet Thorn (*Acacia karroo*), 20, 60
 Sycamore Fig (*Ficus sycomorus*), 52

 Tambuki Thorn (*Erythrina acanthocarpa*), 74
 Thorn-tree Family (*Mimosaceae*), 57
 Transvaal Candelabra Tree (*Euphorbia cooperi*), 80
 Transvaal Gardenia (*Gardenia spatulifolia*), 118
 Transvaal Milkplum (*Bequaertiodendron magalismontanum*), 16, 108
 Transvaal Teak (*Pterocarpus angolensis*), 72, 74
 Tree Fern (*Alsophila dregei*), 34
 Tree Fern Family (*Cyatheaceae*), 36
 Tree Fuchsia (*Schotia brachypetala*), 68
 Tree-of-Heaven Family (*Simaroubaceae*), 76
 Tree Wistaria (*Bolusanthus speciosus*), 71

 Uitenhage Aloe (*Aloe africana*), 48
 Umzimbeet (*Millettia grandus*), 72

Umbrella Thorn (*Acacia tortilis* subsp. *heteracantha*), 64

 Velvet Bushwillow (*Combretum molle*), 100

 Water Lilies (*Nymphaea*), 34
 Weeping Boer-bean = Tree Fuchsia (*Schotia brachypetala*), 68
 Weeping Wattle (*Peltophorum africanum*), 70
 White Stinkwood (*Celtis africana*), 20, 22, 51, 72
 Wild Currents (*Rhus*), 82
 Wild Bottlebrush Family (*Greyiaceae*), 85
 Wild Elder Family (*Loganiaceae*), 110
 Wild Medlar (*Vangueria infausta*), 18, 118
 Wild Olive (*Olea africana*), 20, 109
 Wild Peach Family (*Flacourtiaceae*), 97
 Wild Plane Trees (*Ochna*), 96
 Wild Plane Family (*Ochnaceae*), 94
 Wild Plum (*Harpephyllum caffrum*), 82
 Wild Seringa (*Burkea africana*), 66
 Wild Teak Trees (*Pterocarpus*), 72
 Wistaria (*Wistaria*), 72

 Yellowwood Trees (*Podocarpus*), 34
 Yellowwood Family (*Podocarpaceae*), 42

Klassifikasie van Voëls

Die volgende voëlspesies is op die kampus geïdentifiseer, hoewel nie almal in die teks vermeld word nie:

FAMILIE/FAMILY ANHINGIDAE

Slanghalsvoëls/Darters

1. *Anhinga rufa* (52), 24, 34
Slanghalsvoël; Darter

FAMILIE/FAMILY ARDEIDAE

Reiers/Herons

2. *Ardea melanocephala* (55), 22
Swartkopreier; Black-headed Heron
3. *Ardeola ibis* (61), 22
Veereier; Cattle Egret

FAMILIE/FAMILY THRESKIORNITHIDAE

Ibisse en Lepelaars/Ibisses and Spoonbills

4. *Threskiornis aethiopicus* (81), 18
Skoorsteenveër (Heilige Ibis); Sacred Ibis
5. *Bostrychia hagedash* (84), 22
Hadida-ibis; Hadedda Ibis

FAMILIE/FAMILY ANATIDAE

Eende en Ganse/Ducks and Geese

6. *Alopochen aegyptiacus* (89), 34
Kolgans; Egyptian Goose

FAMILIE/FAMILY FALCONIDAE

Valke/Falcons

7. *Falco tinnunculus* (123)
Kransvalk; Rock Kestrel

FAMILIE/FAMILY AQUILIDAE

Woue, Arende en Sperwers

Kites, Eagles, Buzzards and Hawks

8. *Elanus caeruleus* (130), 22
Blouvalk; Black-shouldered Kite

**FAMILIE/FAMILY PHASI-
ANIDAE**

Jagvoëls/Game Birds

9. *Francolinus afer* (188), 18
Rooikeelfisant; Red-necked Francolin

Classification of Birds

The following bird species have been identified on the campus, though not all are mentioned in the text:

**FAMILIE/FAMILY
CHARADRIIDAE**

Kiewiete/Plovers

10. *Vanellus armatus* (245), 22
Bontkiewiet; Blacksmith Plover

**FAMILIE/FAMILY
BURHINIDAE**

Dikkoppe/Dikkops

11. *Burhinus capensis* (275)
Gewone Dikkop; Cape Dikkop

**FAMILIE/FAMILY
COLUMBIDAE**

Duiwe/Doves and Pigeons

12. *Columba guinea* (311), 28
Kransduif; Rock Pigeon
13. *Streptopelia capicola* (316), 22, 44, 60
Gewone Tortelduif; Cape Turtle Dove
14. *Streptopelia senegalensis* (317), 58
Lemoenduif; Laughing Dove

FAMILIE/FAMILY CUCULIDAE

Koekoek/Cuckoos

- 15. *Cuculus solitarius* (343), 58
Piet-my-vrou; Red-chested Cuckoo
- 16. *Chrysococcyx caprius* (352), 58
Diedrikkoekoek; Didric Cuckoo
- 17. *Centropus superciliosus* (356), 24
Gewone Vleiloerie; Burchell's Coucal

FAMILIE/FAMILY APODIDAE

Windswawels/Swifts

- 18. *Apus barbatus* (380)
Swartwindswawel; Black Swift
- 19. *Apus horus* (384)
Horus-windswawel; Horus Swift

FAMILIE/FAMILY COLIIDAE

Muisvoëls/Mousebirds

- 20. *Colius striatus* (390), 22, 48, 51, 62, 68, 78
Gevlekte Muisvoël; Speckled Mousebird
- 21. *Colius indicus* (392), 22, 48, 51, 78
Rooiawangmuisvoël; Red-faced Mousebird

FAMILIE/FAMILY UPUPIDAE

Hoephoepe/Hoopoes

- 22. *Upupa africana* (418), 22
Hoephoepe; African Hoopoe

FAMILIE/FAMILY CAPITONIDAE

Houtkappers/Barbets

- 23. *Trachyphonus vaillantii* (439), 22, 44, 92
Kuifkophoutkapper; Crested Barbet

FAMILIE/FAMILY JYNGIDAE

Draaihalse/Wrynecks

- 24. *Jynx ruficollis* (453), 58
Draaihals; Red-breasted Wryneck

FAMILIE/FAMILY HIRUN- DINIDAE

Swawels/Swallows and Martins

- 25. *Hirundo semirufa* (501)
Rooiborsswawel; Red-breasted Swallow
- 26. *Hirundo rupestris* (506), 30
Kransswawel; Rock Martin

FAMILIE/FAMILY DICRURIDAE

Byevangers/Drongos

- 27. *Dicrurus adsimilis* (517), 75, 92
Mikstertbyevanger; Fork-tailed Drongo

FAMILIE/FAMILY PYC- NOTOTIDAE

Tiptolle/Bulbuls

- 28. *Pycnonotus barbatus* (545), 22, 51, 58, 60, 62, 68, 78
Swartoogtiptol; Black-eyed Bulbul

FAMILIE/FAMILY TURDIDAE

Lysters, Bergwagters, Spek- vreters en Janfrederikke/ Thrushes, Chats and Robins

- 29. *Turdus olivaceus* (553), 22, 62
Gewone Lyster; Olive Thrush
- 30. *Cossypha caffra* (581), 38, 44, 58
Gewone Janfrederik; Cape Robin

FAMILIE/FAMILY SYLVIIDAE

Tinktinkies/Warblers

- 31. *Prinia subflava* (649), 22
Bruinsy-langsterttinktinkie; Tawny-flanked Prinia

FAMILIE/FAMILY MUS- CICAPIDAE

Vlieëvangers/Flycatchers

- 32. *Muscicapa striata* (654)
Europese vlieëvanger; Spotted Flycatcher
- 33. *Melaenornis silens* (665)
Fiskaalvlieëvanger; Fiscal Flycatcher
- 34. *Terpsiphone viridis* (682), 16, 92
Paradysvlieëvanger; Paradise Flycatcher

**FAMILIE/FAMILY
MOTACILLIDAE**

Kwikstertjies, Koesters en
Kalkoentjies/Wagtails, Pipits
and Longclaws

35. *Motacilla aguimp* (685)
Bontkwikstert; African Pied Wagtail
36. *Motacilla capensis* (686), 34, 38
Gewone Kwikstert; Cape Wagtail

FAMILIE/FAMILY LANIIDAE
Laksmans/Shrikes

37. *Lanius collaris* (707), 22, 44, 58
Gewone Laksmans (Janfiskaal); Fiscal
Shrike
38. *Laniarius ferrugineus* (709), 22
Gewone Waterlaksmans; Common Bou-
bou Shrike
39. *Tchagra senegala* (715), 16, 22
Swartkroonlaksmans; Black-crowned
Shrike
40. *Malaconotus zeylonus* (722), 22
Bokmakierielaksmans (Bokmakierie);
Bokmakierie Shrike

FAMILIE/FAMILY STURNIDAE
Spreeus/Starlings

41. *Lamprotornis nitens* (737), 22
Gewone Glansspreeus; Cape Starling
42. *Onychognathus morio* (745), 22
Rooivlerkspreus; Red-winged Starling

**FAMILIE/FAMILY NEC-
TARINIIDAE**

Suikerbekkies/Sunbirds

43. *Nectarinia talatala* (763), 62
Witpenssuikerbekkie; White-bellied
Sunbird
44. *Nectarinia amethystina* (772), 44, 62,
68, 92
Swartsuikerbekkie; Black Sunbird

**FAMILIE/FAMILY
ZOSTEROPIDAE**

Glasogies/White-eyes

45. *Zosterops pallidus* (775), 22, 24, 28,
44, 48

Gewone Glasogie; Pale White-eye

FAMILIE/FAMILY PLOCEIDAE

Mossies, Vinke, Rooibekkies
en Flappe/Sparrows, Weavers,
Waxbills, Widow-birds and
Whydahs

46. *Passer domesticus* (784)
Dakmossie; House Sparrow
47. *Passer melanurus* (786), 22, 58
Gewone Mossie; Cape Sparrow
48. *Ploceus cucullatus* (797)
Bontrugvink; Spotted-backed Weaver
49. *Ploceus velatus* (803)
Gewone Geelvink; Masked Weaver
50. *Euplectes orix* (808)
Rooivink; Red Bishop
51. *Lonchura cucullata* (823)
Gewone Fret; Bronze Mannikin
52. *Estrilda astrild* (843)
Rooibeksyste; Common Waxbill
53. *Vidua macroura* (846)
Rooibekkoninkie; Pin-tailed Whydah

Afrikaanse gewone name
VOËLS

Blouvalk (130) (*Elanus caeruleus*), 22
 Bokmakierielaksmen (722) (*Malaconotus zeylonus*), 22
 Bontkiewiet (245) (*Vanellus armatus*), 22
 Bruinsy-langsterttinkie (649) (*Prinia subflava*), 22
 Diedrikkoekoek (352) (*Chrysococcyx caprius*), 58
 Draaihals (453) (*Jynx ruficollis*), 58
 Gevlekte Muisvoël (390) (*Colius striatus*), 22, 48, 51, 62, 68, 78
 Gewone Glansspreeu (737) (*Lamprotornis nitens*), 22
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