

Wewsletton B v ome

MOSS Uuusbrief

l ) y Â° [l @

(M.O.S.S.: Metropolitan (M.O.8.S.: Metropolitaanse (0.5 S 1Ublelo. Luezindawo  
:IDD Opdn Space System,) Oop Ruimte Sisteem.) Ezivulekile Emondolobheni Amakbulu.)

n

JDDE Sponsored by the Natal Town Onder beskerming van die Stads- Kusingethwe J".kb"â\200  
\235"iâ\200\230bâ\200\234"i yokub{ela

;â\200\231Pâ\200\234 [.DE]C & Regional Planning Commission. en Streekbeplanningk iccie Wan  
yamadolobha nezifunda yaseNatali.

U H00g Private Bag 9038, P.M.Burg. Natal, Privaatsak 9038, P.M.Burg.

J aluly

L Wy

A

N oy EDITORIAL

â\200\230 J . St g :

N BDE One of the five objectives of MOSS is to â\200\234enhance environmental awareness and  
DN - . .

N EDSE knowledge by providing a setting for the interpretation of environmental patterns an  
d

n 3 processes.â\200\235 Although MOSS is not directly involved with environmental education  
as

DE such, it is concerned that there should be an increased public awareness of

le[ conservation and our natural environment. This awareness is an ongoing process

IID[ which is stimulated not only by formal education such as school and university sources  
]DDE but also by programmes on the radio and television and by visits to nature reserves,

00 botanic gardens and the like.

]DD[ Environmental education, according to Professor Fuggle of the University of Cape

]DD[ Town, seeks to develop a population which is aware of the elements and relationships

which go to make up the environment, and which is motivated to take action to correct

000G 9 P

misuse of the environment.

There are a number of organisations and individuals who are instrumental in furthering

environmental education, for example, the Natal Parks Board plays an important role in this sphere. It provides interpretation centres in the nature reserves—under the Boardâ\200\231s

control and employs interpretation officers who lead school and interested groups through the reserves. Another notable example is the Umgeni Valley Project at Howick, which was initiated and is sponsored by the Wildlife Society and is now also supported by the KwaZulu Bureau of Natural Resources, where worthwhile facilities are made available – for environmental education. In both the examples given, qualified and experienced professional people provide the interpretation of the natural environment. But, of particular interest to MOSS are the centres at Stainbank, Krantzkloof and Beachwood Mangroves nature reserves which are situated within Metropolitan Durban ~"and provide scholars with opportunities to develop an understanding of their environs.

The Natal Education Department has done much to stimulate interest in conservation in ~schools under its control. Many schools have become involved in beneficial conservation projects through taking part in the annual conservation symposia

organized by the Department. Two schools in particular deserve singling out. Â¢ Firstly, it was as a result of the interest created by the Danville Girlsâ\200\231 s il High Schoolâ\200\231s involvement in a symposium that the Virginia Bush . â\200\235"â\200\230/;Â«, 2

T ON)

lâ\200\2311"h';Â° s

) O,,

Nature Reserve was ultimately established. Secondly, Westville Girls's High School has become involved in canvassing for the establishment of a nature reserve in the Umbilo River valley. Not only the two projects specifically referred to, but many others have had a direct and beneficial effect on MOSS.

Many of our moral values are formed during school and post school training. Yet most school and university syllabi do not deal with conservation principles as comprehensively as many would like. The NED has recently incorporated more conservation and ecological aspects into the senior Biology syllabus. However, it is arguable that there are additional university curricula that should include courses in conservation. Architects, engineers, town planners and landscape architects in particular should have a clear understanding of ecological principles and the impact of human activities on the environment. Yet in most cases the university courses relating to these professions are deficient in this respect. It is of paramount importance that the general public is made aware of the principles of conservation and one of MOSS's objectives is to assist in bringing this about.

Editor

The Umgeni Valley Project and KwaZulu  
Bureau of Natural Resources Join Hands

Ever since man has given up being a food-gatherer and a hunter to become a food-grower and a livestock farmer, he has made his yveight felt in all ecosystems, using his great power for good or bad with almost equal freedom and adjusting, improving or destroying habitats in a way no other species has ever been able to do. Our times pulsate with excitement, but they are also heavy with uncertainty and foreboding. Upon our generation rests a burden greater than that of any other age, because for the first time, man can claim some control over the land and water around him. With this control comes the tremendous responsibility of ensuring that our actions do not destroy natural resources on which we and our children will depend.

If there is anything that can guide us past the pitfalls along our chosen road, it is a sound and relevant education. Education should make us aware of the problems facing us, and stimulate us to seek the answers. To face confidently the world of today, the modern young man and woman must be able to relate what they have learnt at school to the world around them.

It was with this in mind that the KwaZulu Bureau of Natural Resources seconded a nature conservator to the Umgeni Valley Project. | was chosen for this post and work hand-in-hand with the African Conservation Education Co-ordinator, Jim Taylor. In a nut-shell the job includes:-

1. Conducting groups of students in the valley who come to study ecology in the field. Topics like soil study, water study, man as â\200\234Earthâ\200\231s Caretakerâ\200\235, interrelationships, only to mention but a few, are covered.
2. Conducting teachersâ\200\231 courses in Umgeni Valley. These courses are planned in such a way as to make teachers aware of this outdoor classroom and to motivate them to use it with their pupils.

These courses address that part of our conservation strategy, which has been ignored for many vyears, that is including Black people in our environmental education programmes. Today Black people are inclined to forget that they are also an integral part of the environmental crisis we are faced with. This is why the step taken by both these conservation authorities is regarded as a major break-through, as it ensures that everybody understands the ecological principles which maintain our environment in a healthy and life supporting state.

For any further information regarding courses at Umgeni, please do not hesitate to contact us at:-

P.O. Box 394

Howick

3290

OR

Telephone - 03321 - 3931/4332

Khulani Mkhize

KwaZulu Bureau of Natural Resources

Umgeni Valley Project

## Community Involvement at Virginia Bush

In 1981, our school, Danville Park Girlsâ\200\231 High School, presented a paper to the Science Conservation Symposium on indigenous trees, and we concluded that indigenous forests were dwindling at an alarming rate. The 1981 team recognized the importance of educating the public to the value of indigenous trees. Much of their research was done in a neglected wasteland called Virginia Bush situated within half a kilometer of our school.

## NORTHERN FREEWAY

### Virginia Bush Locality Map

Once our attention had been drawn to this area, the 1982 conservation team decided to concentrate on Virginia Bush to investigate the importance of an indigenous forest in terms of: the city dweller and the need for the green belt as a recreational area; and to investigate the possibility of developing this zone as a nature conservation area, where trails could be established and where animals could be introduced to rehabilitate the ecosystem. Investigation found the Virginia Bush to be a haven for vagrants and a dumping ground for garden refuse.

The team first did a survey of the vegetation to identify indigenous and exotic plants, to classify the stage of development of the forest, namely primary and secondary colonizers and the climax forest. They found that the animal and bird life was badly threatened by hunting and domestic pets. The conclusion of the 1982 team was that this was one of the last of the open spaces within a suburban environment in which the coastal bush could be allowed to regenerate.

A survey was taken of the opinion of the neighbouring residents and with their unanimous backing, the team further investigated the feasibility of establishing this area as a natural park, pin-pointing problems and formulating plans, rousing local support and vowing to return to the Conservation Symposium the following year having seen Virginia Bush declared a nature park.

The 1983 team, following the guidelines laid down, first enlisted the help of local councillor, Mrs Winter, who organized a joint Amenities-Environmental Committee Meeting of the Durban City Council at which our paper was presented. The paper was enthusiastically received but as the Council could give little financial help it fell to the school girls to rouse the interest of the local community by calling a public meeting to elect a committee.

This consisted of Mrs Winter, a Parks Department representative, Mr. Geoff Nichols, three local residents and three representatives of local High Schools. A constitution was born. Within four months the Durban City Council had approved the establishment of the Virginia Bush Nature Park - a record. The area remains under the control of the Parks, Recreation and Beaches Department represented by an enthusiastic Mr Geoff Nichols.

Plans were immediately formulated for clearing the area of exotic plants such as Chromolaena odorata (triffid weed), filling in dongas, fencing and building a dam. Beachwood Boysâ\200\231 High School enthusiastically joined in on this project and under the supervision of Mr Geoff Nichols made a start on clearing the dreaded triffid weed, filling in the dongas and building rough bridges across them as they cleared a trail through the Bush. Danville girls continued to identify trees and put up the arrows to mark the trail.

VIRGINIA BUSH

TRAIL/  
WANDELPAD

Forest

Â£ shrub/Grassland  
Water Pipeline

(9 Ephemeral Stream  
Donga

A Trail

Parking

% Start of Trail

In 1984 our conservation team did further research on the components of the ecosystem of the bush, completed the trails, identified the trees and produced a brochure to encourage public involvement. The team prepared worksheets and escorted pupils from the local primary schools on trails.

In June 1984 a noticeboard, donated by North Durban Rotary, was erected on the Kensington Drive entrance to the reserve. This indicated the route of the self-guided trail and by this it was hoped that the public would be encouraged to make use of the Bush. This has proved successful as many people use the trail over the weekends.

Studying the map at the start of the Virginia Bush trail. Photo: G. Nichols

In the September the Management Committee ran a logo competition which was open to all schools in the area. This was won by Alex de Segrais, a Std 9 pupil at Danville. The logo embodied a flat-crown tree which denoted the immaturity of the forest and the Blue Duiker represented the relationship between animals and plants. The logo now appears on all the Manco letterheads.

In 1985, although Virginia Bush was not the topic for the Science Conservation Symposium research, Danville still remained heavily committed to the project. A Choir Concert with Beachwood Boysâ\200\231 High School and Durban North Senior Primary, was held. Proceeds from the concert and the sale of the tapes made of the evening raised over R1 200 in order to finance the building of a much needed dam. Also during 1985 Virginia Bush acquired a container, kindly donated by Unicorn Shipping Lines, for the storage of tools used by the three African labourers allocated by the Parks Department to work in Virginia Bush on a full time basis.

In December 1985 the dam was completed but, unfortunately, with the heavy rains it was filled with mud due to water pipeline problems. This has now been rectified.

The handing over of a container donated by Unicorn Shipping Lines. It is used for the storage of equipment. Photo: G. Nichols

For 1986, Danville Girls's High School will be drawing up worksheets based on the new Biology syllabus for Junior and High schools for use in the Virginia Bush. They intend to pinpoint specific areas in Virginia Bush and draw up worksheets on these areas. They will also continue to make trails and to identify trees.

Virginia Bush stands as a symbol of what can be achieved by enthusiastic pupils and teachers, community involvement from residents and commerce and the foresightedness of the Durban City Council who see the importance of the natural areas to the city dweller. Virginia Bush is a small example of what can be achieved and is one vital node in the development of the Metropolitan Open Space System of Durban.

Mrs Jean Walters  
Danville Park Girls's High School



## Die Natalse Onderwysdepartement se Betrokkenheid by Omgewingsopvoeding

Omdat die Natalse Onderwysdepartement oortuig is dat omgewingsopvoeding noodsaaklik is as jong mense opgelei moet word om vir hulle natuurlike en kulturele erfenis om te gee, het hy 'n Afdeling Omgewingsopvoeding in die lewe geroep. Hierdie afdeling is betrokke by die beplanning en organisasie van die meeste van die omgewingsopleiding wat deur skole van die Natalse Onderwysdepartement onderneem word. Skole wat daarin belang stel om veldstudie-ekskursies te reël word op elke moontlike wyse gehelp en daar in 'n spesiale subsidie vir hierdie doel. Hierdie afdeling ondersoek ook voortdurend omgewingsopleidingsmoontlikhede en versamel inligting wat vir skole nuttig kan wees. Hy verleen ook hulp aan skole deur die samestelling van studiegidse en werkgidse te reël vir gebiede wat potensiaal vir omgewingsopleiding toon.

Hierdie inligting, sowel as inligting oor oornagsentrums en gebiede met potensiaal vir veldstudies, word aan onderwysers deur middel van besoeke, omsendbriewe, bulletins en artikels in die departement se tydskrif, NEON, bekend gestel. Veldstudiegroepe het 'n uitstekende manier geblyk om onderwysers aan 'n bepaalde omgewing bekend te stel. Verskeie middag- en naweekkursusse word jaarliks aangebied.

Bo en behalwe die gewone opvoedkundige ekskursies is daar die volgende programme met 'n meer holistiese benadering:

### 1. Simposiums oor omgewingsbewaring

Jaarliks word alle primêre en hoër skole in Natal uitgenooi om deel te neem van 'n simposium oor die bewaring van ons omgewing en natuurlike hulpbronne.

Leerlinge kies hulle eie onderwerpe om te ondersoek en werk as individue of klein groepe. Na die afhandeling van hulle navorsing kry hulle die geleentheid om hulle bevindinge by een van die streeksuitdunne met ander lede te deel. Die beste aanbiedinge dring deur na die Natalse finale en die beste hoërskoolspanne neem deel aan die jaarlikse jeugsimposium by die Nasionale Park Golden Gate Highlands.

Die opvoedkundige doelwitte van hierdie simposium is om oorspronklike bevraagtekening aan te bemoedig, 'n wetenskaplike wyse van ondersoek te kweek en 'n belangstelling in bewaring te verskerp. Daar word geglo dat hierdie mikpunte bereik word.

### 2. Skoolkampe by Cedara

Daar word jaarliks 'n aantal kampe wat elk 4 dae duur, te Cedara gehou. Hierdie kampe word deur ongeveer 300 st. 5-leerlinge op 'n keer bygewoon. Die belangrikheid van die bodem as 'n natuurlike hulpbron is die sentrale tema van die studies wat onderneem word. Die kursus begin met 'n ekologiese studie met die hoofdoel om leerlinge tot die besef te laat kom dat

alle lewe afhanklik is van groen plante as die enigste verskaffer van energie. Die oorblywende tyd word by die Cedara-kollege se plaas deurgebring waar die verskillende landbou-afdelings besoek word. Vir baie stedelike leerlinge is dit hulle eerste kennismaking met plaasdiere en akkerbou.

Verdere inligting kan verkry word by:  
Die Afdeling Omgewingsonderwys  
Privaatsak 9044

Pietermaritzburg

3200

Telefoon no.: 0331 - 29551

Mnr. P.R. van den Berg  
Omgewingsonderwys  
Natalse Onderwys Departement

#### Moss Audio-Visual Programme

The Moss Steering Committee has been lobbying for sometime for the production of an audio-visual programme. As a result of kind donations from a number of organizations the Committee has been able to direct Mr Alan Mountain of Development and Communication Consultants to produce a programme. Organizations which have so far contributed to the production of the programme are:

Natal Town and Regional Planning Commission.  
Durban City

Boroughs of Pinetown, Verulam and Kloof.  
AECI Explosives and Chemicals  
Waste-Tech

Budget Footwear

Mobil

Caltex

B.P.

Coca-Cola Bottling

Protea Asphalt (Pty) Ltd.

Editor

The MOSS Steering Committee is extremely grateful to the above organizations for their contributions.

## The Natal Education Department's Involvement in Environmental Education

Responsible educationists believe that in today's largely industrial society children must be given the opportunity to make close contact with the natural and cultural environments which modern conditions have made less familiar to them. In what better way, they ask, can it be done, than by taking them out of their classrooms and into their environment. Only in this way can children be given the opportunity to learn to respond to their environment, to observe, to record and to become aware of the world around them.

It is only when they begin to respond to this environment through an appreciation of the intricate interrelationship between all living things and between living things and their physical environment, that they begin to understand their environment and realise that every aspect, however insignificant, is important in the web of life. This understanding leads to a realisation of our absolute dependence on nature and a concern for the conservation of our natural heritage.

It is when this moral response has manifested itself in our young people that educationists feel they have achieved the main object of environmental education.

The Natal Education Department subscribes to the belief that environmental education is essential if young people are to be trained to care for their natural and cultural heritage, and an Environmental Education Section has therefore been created. This section is involved in the planning and organisation of most environmental education undertaken by schools under the Natal Education Department. Schools wishing to arrange field study excursions are assisted in every possible way and there is a special subsidy for this purpose. This section is also constantly investigating possibilities for environmental education and collects information which may be useful to schools. It also assists schools by organising the compilation of study guides and worksheets for areas that have potential for environmental education.

This information and information on overnight centres and areas with potential for field studies is made known to teachers by means of visits, circulars, bulletins and articles in the department's magazine, NEON. Field study workshops have proved to be an excellent way of introducing teachers to a particular environment. Several afternoon and weekend courses are organised annually.

Over and above the normal educational excursions there are the following ventures with a more holistic approach:

## 1. Environmental Conservation Symposia

Annually all primary and high schools in Natal are invited to take part in a symposium on the conservation of our environment and natural resources.

Pupils choose their own topics for investigation and work as individuals or small groups. After doing their research they get the opportunity to share their findings with others at one of the regional finals. The best presentations go through to the Natal finals, and the best high school teams take part in the annual youth symposium held at the Golden Gate Highlands National Park.

The educational aims of this symposium are to encourage original questioning, to foster the scientific method of investigation and to sharpen interest in conservation. It is believed that these aims are being realised.

## 2. Cedara school camps

Annually a number of camps, each lasting four school days, are held at Cedara. These camps are attended by about 300 Std 5 pupils at a time. The importance of soil as a natural resource is the central theme of the studies undertaken. The course begins with an ecological study with the main object to lead pupils to realise that all life depends on green plants as the only producers. The remaining time is spent on the Cedara College farm where the different agricultural sections are visited. For many urban pupils this is their first acquaintance with farm animals and agronomy.

Further information can be obtained from:

The Environmental Education Section  
Private Bag 9044

Pietermaritzburg

3200

Telephone: 0331 - 29551

Mr. P.R. van den Berg  
Environmental Education  
Natal Education Department

Indawo into Ephila Kuyo.

Indawo into ephila kuyona (habitat) kuba yindawo enalezozidingo zempilo ezitholakala kuyo leyondawo ziyenze indawo lena iyilungele impilo yaleyonto ephilayo. Ukubanempilo kwendawo kwesekelwe yimithetho ethile ezindaweni nathi esiphila kuzona kunemithetho eshaywa yisintu okubhekeke ukuba siyigcine. Yilowo nalowomuntu unemithetho azibekele yona yena lugobo. Yilowo nalowomndeni unemithetho yawo eyehlukile emithethweni yesizwe noma yomphakathi owakhe kuso/kuwo. Yilesa naleso sizwe kumbe umphakathi sinemithetho yaso kumbe yawo kanti ngokunjalo vyilelo nalelozwe linemithetho yalo. Lemithetho ukuthi iyimithetho mini kumiswa ngokwesekelwa yisimo sendawo leyo okuphilwa kuyo. Nashane eminye imithetho kwephathelene nokunye kwalokhu esengikuphawule ngenhla ingagcinwa lowo oyephulayo uyajeza emuva kokungahloniphi umthetho lowo. Kungalesisizathu-ke-nje abantu abaphila endaweni ethile beyihlonipha imithetho ebekwe/yabekelwa isintu. Isijeziso kungaba ngesinye salokhu ukuthethiswa, ukushaywa, ukubizelwa phambi komndeni, uzalo noma komkhandlu uzobuzwa uphendule imibuzo, ukumiswa enkundleni phambi komndeni, uzalo noma komkhandlu uzobuzwa uphendule imibuzo, ukumiswa enkundleni phambi komkhandlu ophethe idolobha kumbe enkundleni yenkosi yesizwe noma-ke ukubela phambi kwemantshi enkantolo lapho esejeziso emuva kokufunyaniseka unecala kuba ukukhokhiswa inhlawulo equnyiwe noma ukugqunywa ejele. Nxa-ke kungukwephuka konthetho umuntu asuke ezibekele wona ukugeza kungaba ukugula, ububha, nokunye.

Umuntu (man) uyalibala ukuthi ukumphonsa kwakhe umbalane kuya ngokuyihlonipha kwakhe imithetho yemvelo - engeyendawo aphila kuyona.

Ikhaya lethu nendawo esiphila kuyona umhlaba. Nxa sihlonipha imithetho yawo yemvelo siziholela ekubeni sixhegule. Thina zilwane eziyisintu sinomsebenzi omkhulu kakhulu futhi onzima wokunakekela zonke lezozinto ezisekela impilo esaziphiwa nguMdali. Kungumthwalo osemahlombe ethu ukuginisekisa ukuthi thina sintu sinalo ingomuso. Lokhu-ke kusho ukuvikela zonke izinto ezixhase impilo endaweni esiphila kuyo. Lezozinto phela ziyizisekelampilo. Ngenxa yezinguququko ezenzeka nezisenzekayo endaweni esiphila kuyo siyaghubeka nokulahlekelwa uxhumano nomhlaba wemvelo. Akufanele neze sikuvumele kwenzeke lokhu.

Ukwenza sibe nesiginiseko sengomuso lethu elicacile kuhle sivikele umhlabethi wethu. Ngokubona kwami umhlabethi yiwonafa lethu eliwedlula onke endaweni esiphila kuyo. Nezinye izisekelampilo njengomoya, amanzi nokukhanya kwelanga kuhle zisetshenziswe ngendlela eyephusile. Kodwa-ke mncane umonakalo osuwenziwe kuzona nxa sighthathanisa nomonakalo osuwenzeke nosenzekayo enhlabathini. Asinawo amandla okwenza esikuthandayo ngelanga. Naphezu kunjalo sinakho ukufaka unyawo noma isandla kokwenziwe yilanga lapho siphila khona. Ukunukubezeka komoya nakho akukabi yona ingginamba kuleli lakithi njengakwamanye amazwe phesheya. Naphezu kunjalo-ke akufanele kuhlalwe phansi dekle kungenziwa mizamo yokukhalima lesisimo. Kanjalo futhi nasekunukubezekeni kwamanzi. Inhlabathi yeswe lakithi eyigugu elingaka, iyanyamalala, iyemuka ikhukhulwa amanzi ipheshulwa umoya ngenxa yokungayinakekeli kwethu. Njengoba ngikhuluma lapha manjenje ukubhujiswa kwalolontwentwesana

lomhlaba esiphila kuwo oluyinhlabathi idakhulukazi kulengxenye yomhlaba  
esiphila kuyona kudludlutheka ngejubane elingakaze libonwe emlandweni  
esingakaze sibonwe emlandweni womhlaba selokhu kwathi nhlo. Uma-ke  
loluntwentwesana olwemboze iziwe-okuyinhlabathi seluhambile izindawo  
zezwe ezivundile seziyosala ziyizingwadule ezesabekayo  
okungenakuphephela lutho kuzo.

Ukunakekelwa nokuvikelwa kwenhlabathi engophezulu kuphela kanye  
nokusetshenziswa kwayo ngokunakekelwa okungabangela ukuba kuyona  
kumile utho kumumatheke namanzi kuyo athubeleze, bese nomoya kanye  
nokukhanya kwelanga kukwazi ukubumba kunonge ukudla ezimileni  
kukwenza lokhu kukanye nezinye izidingo zokwenza lomsebenzi. Kulapho-ke  
lapho nesintu sifunana khona umoya owanele nomuhle ohlanzekele  
ukuphefunyulwa. Izimila sezingasinika isintu kanye nemifuyo vyaso  
nezinyamazane zaso ukudla kwempilo.

Noma ubani ongenandaba nendawo aphila kuyona akaphili. Umuntu ovumela  
ukonakala kwendawo aphila kuyona ubhugabhuga ingomuso lakhe lugobo.  
Udla indlu yakhe njengentwala.

M.S. Geumisa  
Urban Foundation

Begonia novembes

: 27

NATURE  
CONSERVANCY  
COUNCIL

England Headquarters  
Northminster House. Peterborough PE1 [UA Telephone Peterborough (0733) 4034  
â\204ç K H Cooper Our Ref: INTO3/01/21  
The Wildlife Society of Southern Africa  
Conservation Division  
100 Brand Road  
Durban 4001  
Republic of South Africa 27 January 1986

Dear Mr Cooper

Very many thanks for your helpful and interesting letter of 26 November and for the documents you sent with it. I have not had time yet to do more than leaf through the papers but they seem very relevant to what we are doing here and I shall look forward to studying them. I have written to Brenda Qook to ask to be put on the mailing list for the MOSS newsletter and will reciprocate by sending her our Urban Wildlife News. I have put you on the complimentary mailing for this publication too.

I am interested in the strong links which have been developed in South Africa between recreation and nature conservation. Although this has been a part of a planner's thinking for some time in Britain it is only recently that the people concerned primarily about nature conservation have accepted this link as a practical one - and many are still very cautious about it. It is a link which I am anxious to encourage myself. The material which you have sent to me, the work I have been told about in Johannesburg, and the Open Space and Recreation Plan for Cape Town all lead me to believe that you have advanced further down the line than we have in this respect.

I agree with you that motivation to protect and use natural resources sensitively is of vital importance. So much depends on the perceptions of different constituencies within the population and the values placed on wildspace by them. Here the perception of nature conservation is vastly different between, say, the rural communities in Scotland, â\200\230the suburban communities of SE England and the inner city communities of the industrial Midlands. Within the inner city community, for example, there are then many different groupings with very different perceptions, needs and values. We have hardly begun to scratch the surface of this - although some work is in hand which bears on the subject. I think that a good deal more has been done in the USA, but a lot of what I have seen there has been rather superficial.

The above letter is from the Urban Co-ordinator of the English Nature Conservancy Council. It may be of interest to readers.

Listen to Radio Port Natal

between 9.30 and 10am every Tuesday morning. Marion Newton will be interviewing different conservationists from organizations such as the Natal Parks Board, the Bureau of Natural Resources and the Oceanographic Research Institute. During the first 6 months of this year different people involved with MOSS were interviewed.

Editor

## Microlinks in the City

In urban areas continuing development and fragmentation of the natural landscape means that nature exists only in small, isolated pockets within the city. If these "habitat islands" are to preserve stable populations of indigenous plants and animals, it is important that species migration and exchange between these sites is maintained. Development pressures, however reduce the opportunity for establishing the necessary "links" or "dispersal corridors". This generates a need for innovative planning, and the use of open space resources that, up until now, have been largely ignored. Included in this category are areas such as road verges, traffic islands, powerline servitudes and vacant lots.

Studies in Britain have shown that freeway verges form one of the country's biggest wildlife reserves because the narrow strips of uncultivated land are seldom cut, sprayed or weeded, and are not utilised by people or domestic animals. The older freeways are already beginning to lay the foundation of typical woodland-edge life, and are now regarded as major migration routes for all types of weeds. Furthermore naturalists have shown that these areas are also ideal wildlife corridors. The verges of new roads, and especially the big banks and cuttings along freeways have a great potential for the creation of natural habitats and the establishment of "reservoirs" of wild plant and animal populations. It is anticipated that these could stabilise populations in places, more accessible to the public, and in greater danger of disturbance.

In order for road verges to function <=) ol

optimally in an ecological sense F> G %83?7%'\' consideration of management techniques >=/= 3\\% eg mowing regimes, is essential. Amenity Â¥ is the major reason given for road verge cutting. Unfortunately tidiness is often used as a synonym for amenity and it is this concern for tidiness in a suburban sense, that does a great deal of damage to road verges as conservation habitats. Very reasonable amenity can be achieved on most roads by contrasting a well-

## "Naturalisation of road

maintained frontal strip with a less verges will not only intensively managed remainder away improve ecological from the road. Not only is this ecologically continuity, but also preferable, improving the function of the greatly improve the verge as a dispersal corridor but it will aesthetic quality of also greatly reduce maintenance costs. the city.

This approach to naturalisation and low maintenance techniques has already been utilised in countries such as Britain and Holland.  
k]

In the same vein, the ecological value and functioning of many other suburban habitats particularly avenues, gardens and parks could be greatly enhanced as inter-island corridors, if they carried a greater variety and number of indigenous plant species. Particularly important in this regard are the suburban gardens which constitute the largest amount of open space per se in the urban environment, but which have been largely neglected by ecologists, horticulturalists and planners alike. The assumption is that



gardens are barren and that exotic plants harbour few animals, and that suburbia is an unmitigated ecological disaster. This extensive area is, in actual fact, probably a far bigger potential reservoir of indigenous species, than are the tracts set aside and designated as nature reserves. In order to realise this potential large scale public education and awareness of the need for the preservation of indigenous species, in the urban environment, is necessary. Voluntary action groups such as the MOSS Committee, have a vital role to play in this regard, through active involvement with the local community school groups and so on. Furthermore Government and local authorities could encourage such initiatives by maintaining nurseries of indigenous plants and provision of expert horticultural services to the public.

Just as the naturalisation of suburban parks greatly reduces establishment and maintenance costs, if the co-operation of house owners could be obtained on a large scale (with regard to indigenous planting) this would not only provide an extensive network of dispersal corridors throughout the urban environment, but recurring costs for local authorities would tend towards zero. The local community would also benefit from this approach to conservation: with individuals achieving a sense of purpose, by adopting the role of conservationist in their everyday surroundings, and the local population becoming more aware of the need for broad-scale conservation, instead of assuming that only government and local authorities are responsible for this function.

Ultimately then, what is required in the urban environment is a new approach to conservation and open space planning and management. One that will ensure that the remaining natural areas do not become ecologically isolated but survive as functional conservation units. In order to achieve this, greater emphasis on indigenous planting and naturalisation, together with the utilisation of little-exploited open space resources is required.

Debra Roberts  
Department of Biological Sciences )  
University of Natal, Durban

<

Bugtree it can be eradicated!

Bugtree (*Solanum mauritianum*), also known as Bugweed, Wild tobacco tree, Luisboom or Nbongobongo is a shapely small tree with very large green - grey leaves and occasional erect bunches of blue star-shaped flowers which develop into

yellow fruit, each the size of a marble. In moist or shaded sites > 6

it can grow to a height of 12m with a dull green or grey coloured /" r, i- "g' â \234â\230\.-,\ .

trunk. It is now believed to come from central South America and was- TR 10 N already growing on the North coast in 1881 when Dr. Medley Wood, the TR AR

botanist, recorded it there. Was it introduced deliberately or by accident, we N donâ\200\231t know, do you ? It is now common in disturbed sites such as plantations N and wasteland in the moist parts of Natal and Transvaal and can be found in the Cape. Very simple surveys in State pine plantations in Natal indicate that the area where it occurs increased by 22% over the period 1981 to 1983 and it can now be found in ca. 30 000 ha.

Bugtree has an indeterminate flowering period and fruit can usually be found throughout the year on well grown trees. Frost kills the younger branches but new shoots soon appear and will produce flowers within the year. Birds feed on the fruit and a study in the Natal Midlands lasting 18 months showed that the Rameron pigeon will feed on it exclusively. A total of 109 pigeons were collected from 11 localities and only- one did not have bugtree fruit in it's gizzard. The fruit contains little . \_ flesh and consists Bugweed with flowers and fruit. Photo" D. Noel mostly of round,

flattened seeds. Up

to 200 seeds have

been counted in a single fruit and most are able to germinate a few months

after they are formed. The seed coat is thin and the contents are quickly

attacked by insects etc. when they become exposed on the ground or are voided by birds, so they should not survive for long. This has been confirmed in a recent study where seeds were recovered from the needle layer and soil in a mature pine plantation. Seeds were present in all layers to a depth of 100mm (the greatest depth examined) and 55-65% were severely damaged and 22-24% were intact but dead. The remainder were alive and germination increased with depth, from nil amongst the pine needles to 16% at a depth of 100mm. Unfortunately these low percentages still represent a few million potential seedlings per hectare | :

*Solanum mauritianum* showing leaves, inflorescence, fruit and a single flower.

Methods of eradication.

(a) Established plants.

Bugtree has a shallow root system, and seedlings and young trees growing where litter is present are easily "pulled-out". They should be removed with roots intact and placed on the ground-so roots remain exposed and die quickly.

Tall trees can be "ring-barked" by beating the bark with a blunt instrument e.g. hammer, in a band around the stem near ground level and then removing all the loose pieces. Only a narrow band, 100 - 200mm is necessary, but large trees will take 18 months to die. Flowers already formed will develop

into fruit but further crops are unlikely. Dense stands of trees with either thin single stems or many stems caused by previous slashing are more difficult to kil and the method used must be suited to the area infested and the resources of cash and labour available. The alternatives are:-

• Dig-out each tree (not as difficult as it sounds).

- o Fell the trees by cutting with a saw close to the ground and treat the cut surfaces of the stump with herbicide.

- e Cut down the tree by slashing or sawing at a convenient height and spray the regrowth with herbicide before it is shoulder high.

- o Treat the lower part of the stem and root crown with a herbicide mixture designed to penetrate the bark, (gives a rapid ringbark effect).

The ideal solution is a combination of methods, each plant being treated according to height and size.

(b) Future growth.

Some preliminary data suggest that the plants growing in an area are probably less than half the problem. Seeds will continue to germinate for a number of years and cleared areas must be inspected every six months and seedlings pulled-out. Where ringbarking has been used, regrowth below the band should be removed. In addition, visitors should be encouraged to remove seedlings near paths. Why not increase awareness by the use of slogans, for example: "Pull a bugtree a day and keep the weed at bay".

Robin Denny & Darwin Noel  
P.P.R.l. Weeds Laboratory  
Private Bag X 9059  
Pietermaritzburg

## Isipingo Lagoon Seminar

In the last MOSS newsletter you will have read about proposals to revitalise the Isipingo Lagoon area. These proposals were brought to a stage nearer fruition on 2 April when a seminar was held on the subject at the Isipingo Island Hotel.

The seminar was organised by the Town and Regional Planning Commission, the Isipingo Branch of the Wildlife Society, and the Isipingo Town Council. A generous contribution by the B.P. Company covered most of the costs, and understandably the organisers are very grateful for this sponsorship.

The Hon. S.V. Naicker, Deputy Minister for Environment Affairs opened the seminar and told those present that the proposal to create a nature reserve that would link up with the Treasure Beach/Reunion Rocks area had his full support as well as that of Minister John Wiley. After pointing out a number of problems that would have to be overcome - he instanced littering, pollution and an adequate supply of water - Mr. Naicker called on individual members of the Wildlife Society to â\200\234spread the gospelâ\200\235 to friends and relatives and to take the lead in preserving the area.

Mr Barry Anderson, Deputy Chief Town and Regional Planner, dealt with aspects of planning for outdoor recreation, and Mr Nico Geldenhuys, a Deputy Director in the Department of Environment Affairs, spoke on coastal zone management. Keith Cooper gave delegates details of the Wildlife Societyâ\200\231s proposals and dealt with some of the implications of the scheme. The biological conditions in the lagoon were described by Dr. Alan Ramm of C.S.I.R., who painted a dark picture of the present condition. However both he and Dr. Harry Swart of C.S.I.R., Stellenbosch, were able to make constructive suggestions for improving things.

AMANZIMTOTI  
MUNICIPALITY

MUNICIPALITY  
ZONED NOXIOUS INDUSTRIAL

ISIPINGO  
MUNICIPALITY

Map showing location of proposed Isipingo Nature Reserve.

During the proceedings it became clear that a major concern was the inadequate flow of water through the Prospecton Canals and a ripple of applause went through the gathering when Mr. Stroude, the Town Engineer of Amanzimtoti, agreed to keep both sluice gates open at the head of the canal.

Before lunch, Prof. Pat Berjak of the Department of Biological Sciences at the University of Natal, Durban, took a group on a conducted â\200\234walk aboutâ\200\235 in the area.

The time after lunch was taken up by a discussion session in which many of the delegates participated. From the questions put forward it was obvious that there was a goodly store of concern at the present condition, and sincere interest in improving things. In particular Dr. George Hughesâ\200\231 promise of the full support of the Natal Parks Board in managing the proposed nature reserve was very well received. '

At the end of the day Mr Tony Little, Chief Town and Regional Planner, ably summarised the proceedings and offered to convene a meeting to establish a management committee to take the proposals further.

After the seminar was over, the Isipingo Town Council hosted a cocktail party where participants could relax and cement new friendships made in the course of organising and taking part in it.

Ken Bromley  
Environmental Planning Division  
N.P.A.

A familiy picnicing on the edge of the mangroves. Photo: D. Dingley

Prophile  
Keith Cooper

Keith Cooper was one of the initiators of MOSS and is still intimately involved as a member of the MOSS Action Committee.

He was born in 1937 and was educated at Scottsville Primary School and Maritzburg College. He worked for Standard Bank, the Oceanographic Research Institute and Durban Aquarium before joining the Wildlife Society as Director in 1971. He is at present Director (Conservation) which post he has held since 1975.

Keith has undertaken numerous projects in the conservation field including a survey of the Transkei Coast, identification of important areas for conservation in Natal, KwaZulu, Transvaal and QuaQua, proposals for marine and estuarine reserves for South Africa and a survey of indigenous forests in the Transvaal, Natal and Orange Free State. He is also joint editor of the book "Studies on the Ecology of Maputaland."

Keith represents the Wildlife Society on numerous bodies at both the national and provincial level. These include among others, the Habitat Council, " / S.A. Nature Foundation, various C.S.I. R. committees, N.A.K.O.R. (National Plan for Nature Conservation), Umfolozi Dams Committee of Enquiry and management committees for Beachwood Mangroves Nature Reserve, Umhlanga Lagoon Nature Reserve, New Germany Commonage Nature Reserve and Silverglen Nature Reserve.

Keith is also a member of the Royal Society of S.A., S.A. Institute of Ecologists and the Institute of Race Relations.

He is married with 4 children (all conservationists)



## BOOK REVIEW

Palmiet Nature Reserve: Self-Guided Trails  
by C.A. Schoute-Vanneck

This booklet written by Professor Corrie Schoute-Vanneck contains a wealth of fascinating information. Professor Schoute-Vanneck was one of the founders of the Nature Reserve, a member of the Palmiet Nature Reserve Management Committee and for many years led the regular monthly Sunday trail through the Reserve.

The author takes the reader along the self-guided trails in the Reserve. ! : C.A.SCHOUTE-VANNECK  
Features of interest along paths are indicated by numbered markers which correspond to the numbers in the interpretative text. Trees, plants, insects, birds, animals, their spoor, geology and even some history is pointed out. The botanical and zoological names, some common names and the traditional medicinal uses of plants are included in the descriptions, together with a wealth of natural history. This includes information such as how the Hluhluwe creeper got its name, the reason for the spatial distribution of grassland, bush and forest, the life cycles of antlions and termites, research being done on Triffid weed, the functioning of the hydraulic ram pump and the formation of sandstone.

A list of trees found in the Reserve giving botanical as well as English, Zulu and Afrikaans common names, a list of birds recorded in the Reserve and maps of the Reserve and of the

self-guided trails are included at the back of the booklet. The text is illustrated with beautifully clear sketches by the author.

This booklet is highly recommended not only for those who are intending to visit the Reserve but for anyone with an interest in nature and also for educationalists and scholars.

It is obtainable for R3 from Mike Cottrell, telephone 031-866191, or from Neville Braude of People's Chemist, Hofmeyr Heights, Jan Hofmeyr Road, Westville. It is well shaped, slim enough to slip into a pocket, and printed clearly on quality paper.

Editor

Published by Palmiet Publications, 111 Jan Hofmeyr Road, Westville (1986) 54 pages. Size 100 x 210 mm. Soft Cover. R3 (excl. G.S.T.)

Onder beskerming van die Stads-  
en Streekbeplanningkommissie van  
Natal.

Die menings deur medewerkers uit-  
gespreek, is nie noodwendig dié van  
die Natalse Stads- en Streekbeplan-  
ningkommissie nie.

Redaktrise: Brenda Crook

Gedruk deur die Natalse Provinsiale  
Administrasie

Bydraes Welkom

Bydraes in die vorm van artikels,  
illustrasies idees en kritiek is  
welkom en moet geadresseer word  
aan:

Die Redaktrise

MOSS Nuusbrief

Die Stads- en Streekbeplanning-  
kommissie van Natal

Privaatsak 9038  
Pietermaritzburg

3200

Issued by the Natal Town and  
Regional Planning Commission.

The views expressed by contri-  
butors are not necessarily those of the  
Natal Town and Regional Planning

Commission

Editor: Brenda Crook

Printed by the Natal Provincial  
Administration

Contributions Welcome

Contributions in the form of  
articles, illustrations, ideas and  
criticisms would be welcome and  
should be addressed to:

The Editor

MOSS Newsletter

Natal Town and Regional Planning  
Commission

Private Bag 9038  
Pietermaritzburg

3200

The Editor

Iminikelo Iyathakazelwa

Iminikelo engaba yizimpahla,  
imifanekiso,  
nezinsolo iyothakazelwa futhi  
ibothunyelwa kulelikheli:

imicabango

MOSS Newsletter

Natal Town and Regional Planning  
Commission

Private Bag 9038  
Pietermaritzburg

3200