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Kenya Horticultural Society North Coast District



North Coast District

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Our cover photo

Our cover photo this month is of a pineapple coming into fruit. Its scientific name is *Ananas comosus* and it hails from the Bromeliaceae family, and is indigenous to South America..

Growing pineapples requires quite a lot of patience. When planted from an off-cut pineapple crown ,you will wait 18 months to three years for a pineapple to develop. And there are no guarantees. Even with perfect growing conditions you may never get a pineapple but you will have a striking looking plant.



This one was photographed in the garden of one of our Watamu members. It looks as if she has struck gold!

Chairman's Notes

Hello everybody, and welcome to the October 2024 edition of The Shamba Times. There are many of our regular features in this edition, including a My Garden piece from a lovely Kilifii garden, and a piece about how Nature Kenya is helping to protect the Arabuko Sokoke Forest.

There is also a report in this edition of our KHS North Coast District 2024 Gardeners' Courses. I have a background in adult training, sadly not in horticulture, but I know how important life-long learning is, and how motivating attending a relevant and inspirational training course can be. These annual gardeners' courses are amongst the most important activities of our KHS year. The courses aim to widen the knowledge and skills of our gardeners, and to show them that their work and that of their peers is important, and is valued.

But it's not only our gardeners who are learning, it is our members too. Not all our meetings or events contain an educational or informational component, but when they do, I see how highly you, our members, value the learning. An example is the hugely informative talk that Nina Chauven gave to us a few months ago about bees.

And so much learning takes place amongst members using our KHS NCD WhatsApp group. The group serves as a forum for plant identification, gardening problem solving, relevant and current horticultural news stories, and for learning where and how new plants can be sourced, and cared for after planting.

We must never stop learning, never lose our curiosity, never cease in our ambition to be better gardeners.

Crispin Sharp.

My Garden by Betty Bundotich

For many years I have tried to replicate the garden of my dreams, envisioning a sprawling evergreen and luxurious lawn with weather-worn structures covered in creepers and flanked with all manner of majestic trees and beautiful flowers.

We moved into our newly-built home - positioned high up on the southern side of Kilifi Creek - in 2014 between the long and short rains. In Kilifi, this is a rather hot and dry period, not conducive to plant growth due to water shortage. When the construction dust settled, we were left with wild bush and *incredibly* bad clay soil. We got organised and enthusiastically welcomed the challenge.

Knowing water would be one of our major issues, we installed sub-ground water tanks, rain-water collection and reed-bed filtration systems to alleviate water stress. Careful thought was given on how we could successfully migrate our precious orchid nursery. To increase the porosity of the soil, we tried introducing sand to the black cotton soil.

To our advantage, the wild bush had a good number of well-established trees like *Terminalia*, *Hyphaene*, and *Cycadales*. We were pleasantly surprised at the number of existing massive African Olive Trees (*Olea africana*), which now provide much-needed shade for other flora, fauna, and us!

Early on, we introduced the African black-wood (*Dalbergia melanoxylon*) as we were looking for hardy, indigenous trees that would thrive in this environment. Other species such as *Kigelia africana* (Sausage tree), *Bombax*, *Spathodea nilotica* (Nandi flame), *Sterculia appendiculata* (mfune or msefu), *Hibiscus*, *Petrea volubilis*, *Adenium obesum* (Desert rose), a couple of Baobabs (*Adansonia digitata*) and many varieties of cactus and palms were also introduced.



Of the countless attempts at planting and maintaining palms, the majority failed. Only recently did we make a breakthrough with the Golden Cane Palm (*Dypsis lutescens*), for the third time lucky! When we realised the seedlings would not survive past a certain stage, it was clear that root penetration was hampered due to the hardness of the soil. To protect their roots, we resolved to plant them in large pots filled with enriched soil, before inserting the pots in the soil - and it worked! Now our paths are lined with healthy rows of golden palm trees.

By Betty Bundotich



In the mid-2000s, we were introduced to orchids following a trip to Chiangmai, Thailand. We were in awe of the delicate and fleeting nature of orchids and took on the challenge of cultivating them in Kilifi! After years of trials and many errors, we seem to have found an equilibrium for several species including *Vanda*, *Dendrodium*, *Cymbidium* and *Cattaleya* species.

As for the luxurious carpet of grass, this remains a dream as lawn establishment continues to evade us – probably because continuous irrigation is not sustainable for our ornamental garden. For decades, we have planted and replanted Pemba grass (*Stenotaphrum*) and *Paspalum* but both species refuse to take hold, the latter proving to be more difficult and thirsty. Nonetheless, we continue with tenacity, constantly experimenting with new methods and ideas, and tending to stick to what works for our coastal garden.

My Garden ... continued

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Large parts of our garden is slow-growing bush, an early decision to fence certain sections paid off, allowing the forest to grow naturally and safely from human interference (especially firewood harvesting). From the start, the plan was to enrich the environment, support the existing indigenous species, and choose plants that grow well in similar conditions. Our successes stem directly from solutions to the challenges that we experienced.

For instance, the drought-resistant bougainvillea - one of our best performers - was planted to bring in the much sought-after colour. They have not disappointed. Similarly, to enrich the soils, we ramped up compost development by establishing a wormery to digest our organic waste and use the vermicompost to make worm tea, used to boost flowering in the orchid garden.



In contrast to its bare beginnings, our garden is a rustic dream - constantly developing, healthy and with much room for improvement. We now have varieties of indigenous plants, flowering bushes, succulents, palms and larger trees covered in Old Man's Beard. The dotted lawn is interspersed with Galana stone paths leading you around the garden - to the orchid house, rockeries, fishpond, vegetable patch, chicken coop, or to relax in one of the quiet little nooks. As we get to know our garden better, it is a continuous journey of discovery.

What's up on WhatsApp? Flower Petals.

Carissa tetramera, posted by Norbert Rottcher on 6 July, provides a nice little entry point for learning more about flower petals as its specific epithet *tetramera* means 'four parts', referring to the number of petals comprising the flower. A *tetramerous* flower is thus one with four petals - or a multiple of that number. Curiously, however, and as well-spotted by Mariola Saliola on 7 July, the photo shows a five-petalled version of the flower



alongside! To continue with the numbering system, a flower with three petals or a multiple of that number is called a *trimerous* flower; and those with five (or a multiple of that number) are *pentamerous*. Interestingly, it is known that flowers are most likely to be five-petalled, followed

by six-petalled flowers, that four petals are unstable and almost no flower can be seven-petalled. Then there are flowers without petals such as the fragrant, pincushion-like flowers of *Maerua angolensis* (recently seen in our gardens) which, instead, shows off its numerous *filaments*.



Evolutionary history and coevolution have led to an incredible diversity of shape, size, colour, smell, and just about any other characteristic you can think of concerning petals but there are some basics that we can hang on to. First, petals are modified leaves that surround and protect the reproductive parts of flowers as well as operating to attract and/or repel specific pollinators. All of the petals of a flower are collectively known as the *corolla*. Petals are usually accompanied by another set of modified leaves called *sepals*, that collectively form the *calyx* and lie just beneath the corolla. Sometimes, sepals and petals are almost indistinguishable. If the corolla has separate petals without

fusion of the individual segments, it is referred to as *apopetalous*; if the petals are partially fused, it is *gamopetalous* or *sympetalous*.

Compiled by Wendy Taylor

Whether a petal corolla is *radially* or *bilaterally symmetrical* also brings about variations. Thus, if all the petals are essentially identical in size and shape, the flower is said to be *regular* or *actinomorphic* as is the case with the *Geranium* flower. Many flowers are, however, symmetrical in only one plane and are termed *irregular* or *zygomorphic*. Examples of the latter may be seen in or-



chids
and
members of the pea family.



Although the floral structure of the ivy-leaved Pelargonium, *Pelargonium peltatum*, is almost identical to that of geraniums, it is conspicuously zygomorphic.

Plants in the aster family have their own petal story to tell. Taking the sunflower, *Helianthus annuus*, as a representative species, it is noted that the "flower" is actually a "flower head" (*pseudanthium*), comprising two types of flower. The outer flowers, which resemble petals, are called *ray flowers*. Each is a coalescent five-petaled flower, that is, four of the original petals have degenerated with one ray petal remaining. The spirally arranged flowers in the centre of the head are called *disk or tubular flowers* - hundreds of condensed small flowers, which mature into fruit, sunflower seeds.



There is so much more to learn about petals...not least to understand why five-petaled flowers are the most usual and in what way a four-petaled flower such as *Carissa tetramera* is unstable!

Sources: Wikipedia Petal; Why Is Flower Five-Petaled? By Yutaka Nishiyama, Osaka University of Economics, Journal of Science Education and Technology, March 2004

Protecting Arabuko Sokoke Forest

Promoting the Kuni Mbili stove to ease fuel-wood demand in Arabuko-Sokoke Forest

By Steve Kioko

Surrounded by 54 villages with an estimated 22,051 households, the Arabuko- Sokoke Forest is a vital biodiversity conservation area, rich in flora and fauna. It is home to over 270 bird species, including six globally threatened species: Amani Sunbird, Sokoke Scops Owl, Kilifi (Clarke's) Weaver, Spotted Ground Thrush, Sokoke Pipit and East Coast Akalat. The communities adjacent to Arabuko-Sokoke Forest mostly rely on firewood for cooking. A previous study indicated that the communities collect an estimated 137,000 tons of firewood annually, with a household consuming approximately 2.9 kilograms daily. This heavy reliance on firewood seriously threatens the forest's unique biodiversity and the valuable ecological services it provides.

To ease pressure on Arabuko- Sokoke Forest for fuelwood, Nature Kenya, with support from the People Partner with Nature (PPN) project, is providing the communities with improved energy-efficient cook stoves called Kuni Mbili (Swahili for two firewoods). These stoves offer a more refined cooking experience. The stoves' chambers are designed to retain more heat, resulting in quicker cooking times. This efficiency saves on fuelwood, eases cooking and reduces smoke emissions. Approximately 3,000 Kuni Mbili stoves have been distributed in Jilore, Sokoke, and Gede.

Amina, the chairperson of Bidii Yetu na Kazi Women's Group based in the area, shared her experience: "Since I started using the Kuni Mbili stove, I have seen several benefits. The stove emits less smoke, which is good for my health. The stove uses less firewood and cooks faster than the traditional three-stone stove I initially used."

Despite the benefits of the Kuni Mbili stove, its adoption around Arabuko-Sokoke is slow. A recent survey revealed most forest-adjacent households still use the traditional three-stone stove. Some challenges hindering the adoption of the improved stove include cost and the need for more information. Nature Kenya has been conducting awareness sessions to educate communities on the benefits of the Kuni Mbili stove, providing training on installation and usage. Nature Kenya is also supporting the communities in acquiring stoves.

Nature Kenya and its mission



The article you have just read about the Kuni Mbili stoves has been reproduced here with the kind permission of Nature Kenya - the East Africa Natural History Society (the EANHS), appearing in its original format in the August 2024 issue of Nature Net, the organisation's monthly newsletter.



Nature Kenya-the EANHS is Africa's oldest environmental Society, established in 1909 to promote the study and conservation of nature in eastern Africa. It remains a non-political and not for profit membership Society.

As a membership organisation, Nature Kenya derives its strength from the support of members. Annual subscriptions vary according to different membership types, which include: Full - Ksh. 2,000; Student - Ksh. 1,200; Family - Ksh. 2,800; Institution/School - Ksh. 1,500. Membership benefits include:

* Unlimited free entry to Kenya's National Museums and museum sites * Free weekly guided nature walks including Birdwalks in Malindi and Mombasa * Free Kenya Birding magazine and monthly Nature Net newsletter

Nature Kenya

4.3 ★★★★★ (13)
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Hill, Kilifi

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KHS NCD 2024 Gardeners' Courses

As many members may be aware, KHS North Coast District has run annual gardeners' training courses here in the district for many years.

The courses aim to widen knowledge, and enhance the skills of our gardeners, as well as to bring them together for a morning and to offer them encouragement to learn more about plants, trees and gardening. The courses are delivered by two professional gardeners, being Jonathan Baya and Katana Baya, and are a blend of theory and practice. At the completion of a course each gardener is awarded a KHS Certificate, and leaves the course better informed, more skilled, and greatly motivated.



**KHS North Coast District
September 2024.
Gardeners' Training Courses.**

KHS Gardeners' Courses will remain at the former price of KSh1,000 per gardener.

KHS NCD Gardeners' Courses are designed to widen the knowledge and the practical skills of gardeners and of those who own gardens too.

To book a place for your gardener please send KSh1,000 per gardener to Rupert on 0702767177 and a text to the same number with the name of your gardener and the location of the course.

| | | |
|---------|--------------|-------------|
| WATAMU | 24 September | 0930 - 1400 |
| MALINDI | 25 September | 0930 - 1400 |
| KILIFI | 26 September | 0930 - 1400 |
| VIPINGO | 27 September | 0930 - 1400 |

2024 COURSE CONTENT

1. General garden care, Keeping a good garden, feeding, and pest control.
2. Propagating plants from seed, cuttings, and grafting.
3. Growing vegetables on the coast.

Course delivery is 50% theory and 50% practical and will be delivered in local language by our own experienced and knowledgeable African gardeners, Jonathan Baya and Katana Baya.



We charge members KSh1,000 for each gardener who attends the course, which includes a welcome cup of tea and a mandazi, the course tuition, a set of gardeners' notes to take home, and the certificate.



This year, as always, the courses are delivered in four centres within our district to enable the greatest number of gardeners to be able to attend. We deliver in Malindi, Watamu, Kilifi and Vipingo and thanks are due to those members who offer up their gardens and facilities in which the training takes place.



We welcome suggestions from members as to what topics you would like to see covered in the annual gardeners courses. Where could your gardener improve? What could he or she do better, and what's important to you in the maintenance and care of your garden? Let us know.

KENYA HORTICULTURAL SOCIETY NORTH COAST DISTRICT

CERTIFICATE OF ATTENDANCE

2024

This certificate is awarded to _____

Name of Recipient _____

For successful completion of the KHS North Coast District 2024 Gardeners' Course.

Instructor's signature _____

Instructor's signature _____



Plants, trees, and climate of the NCD.

A gallery of members' recent photographs



Agave

Crispin Sharp, Malindi



Ochna purpurea

Norbert Rottcher, Kilifi



Eastern dotted border

Mimi Shaw, Malindi



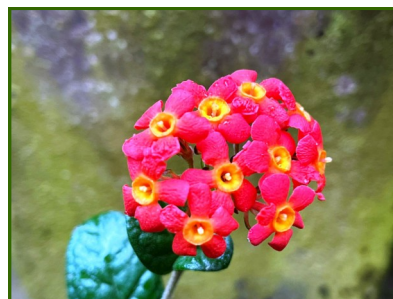
Gloriosa superba

Holly Hamilton, Malindi



Euphorbia millii

Crispin Sharp, Malindi



Rondeletia leucophylla

Mimi Shaw, Malindi



Basket stinkhorn

Carole Korschen, Lamu



Flower mantia

Mimi Shaw, Malindi



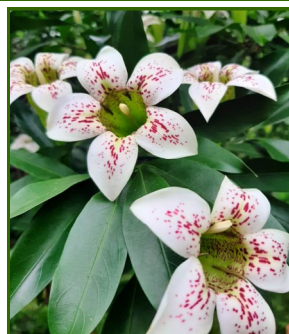
Tilandsia ionantha

Pauline Balletto, Malindi



Variegated bougainvillea

Gail Outram, Kilifi



Rothmannia ravae

Pauline Balletto, Malindi



Hibiscus

Angela Turner, Shanzu

Reports on our recent meetings

On **Tuesday 30 July**, about 35 members gathered for a guided walk around the remarkable garden that Pauline Balletto has created at her home in North Malindi. The garden covers an acre and is a true collection of tropical plants and trees, both exotics and indigenous.. Everything you see in the garden was planted by Pauline herself - it is on the edge of what used to be a mango plantation, so Pauline started from scratch, planting a wide collection of tropical plants , palms and trees, and today the garden is an important repository of exotics and indigenous plants from all over Sub-Saharan Africa including Madagascar.



Pauline very kindly led us on a guided walk around the garden, pointing out important plants, their proper names and their history in the garden. She is always a source of excellent practical advice as to the care of plants, and the best locations for planting any given species. Pauline, and her husband Ellio, both welcome any and all birdlife into their garden and make sure that birds are kept safe and comfortable within the shelter of their garden.

On **Saturday 24 August**, more than 40 KHS members found their way out to the well-known Hanging Gardens in Malindi. But this time our visit was not to see orchids, but to learn about Aquaponics from our host, Nick Conway. Nick has recently started creating garden ponds using the basic principles of aquaponics, being the symbiotic relationship that can exist between water, plants and fish life. Each creates a habitat for the other, as we saw at the very large, well planted and well stocked pond that Nick has created within The Hanging Gardens. Nick spoke to us about how the pond is constructed, why the plants have been chosen and where they are placed, and how the fish feed the water which in turn feeds the planting within and around the pond. Our KHS pop-up shop was there, as always, and many members left the visit feeling inspired to create their own garden ponds.



On **Saturday 21 September**, upwards of 35 KHS members gathered in the delightful sea-front garden of Annelise de la Rosa on the Marine Park in Malindi. As we entered the garden we were greeted by two teenage Baobabs, both sturdy, wide and wonderful with feet like those of elephants. We passed through a cluster of Desert Roses, and onto a grassy area planted up with palms, ixora, ferns and other tropical exotics. The garden walls were on one side lined with Darcena and on the other with a lovely flowering Quisqualis.



The KHS North Coast District pop-up shop, now stocked with a wide range of garden tools, feeds, pots etc as well as lots of nice things for the home or garden, was on our right as we entered and Holly was serving coffee and biscuits by the pool. Annelise led us through to the challenging front garden that adjoins the beach. Not easy to garden within metres of the ocean!

Diary of upcoming NCD events



22 October 2024. We visit the Arabuko Sokoke Forest.

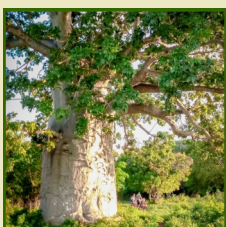
Arabuko Sokoke is the largest extant fragment of the forests that originally extended from southern Somalia to northern Mozambique. Ranked among the 35 identified world's biodiversity hotspots due to the concentration of many endemic species and habitat loss, come now and listen to Jes Carey, the new Chief Executive Officer of the Friends of Arabuko Sokoke Forest (FoASF) and her team tell us about their work.

Saturday 30 November 2024 at 1000. A Shanzu creek-side garden.



We invite members to visit a coastal garden in a lovely location on the creek at Shanzu, north of Mombasa. The garden is at the home of Ursula Brennesein, one of our district's most senior members, and a very knowledgeable and keen collector of plants.

KHS will be offering a simple light lunch and bar service to members, and asking all those who want to stay for lunch to 'bring a plate' to share at the lunch.



Saturday 14 November at 1000. Seedling Designs.

We invite members to visit the wonderful workshop and retail outlet of Seedling Designs located close to The Food Hub on The Plantation at Kilifi. Seedling Designs champions the baobab tree and all its products are made from baobab seed pods. This will be a great chance to learn more about the commercial potential of baobabs and to do a little Christmas shopping. We hope members will stay on for an informal lunch at the Food Hub.

KHS North Coast District



KENYA HORTICULTURAL SOCIETY

Gardening Kenya

North Coast District Contacts

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Hon Treasurer **Mr Rupert Partridge**
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NCD MPESA **0702 767 177**

NCD Shop **Call Maike on 0722526187**



Erythrina abyssinica

Elizabeth Loker

2025 Calendar



KENYA HORTICULTURAL SOCIETY
Gardening Kenya



To join the **KHS North Coast District WhatsApp group**, please contact **Crispin Sharp on 0798 902 442** and ask to be added to the group.