BALCAD NATURE RESERVE

NATURE TRAIL GUIDE

Publication Number 1

1987

Somali Ecological Society

The National Range Agency
P.O. Box 1759
Mogadishu, Somalia

URURKA IKOOLOJIYADA SOOMAALIYEED

SOMALI ECOLOGICAL SOCIETY

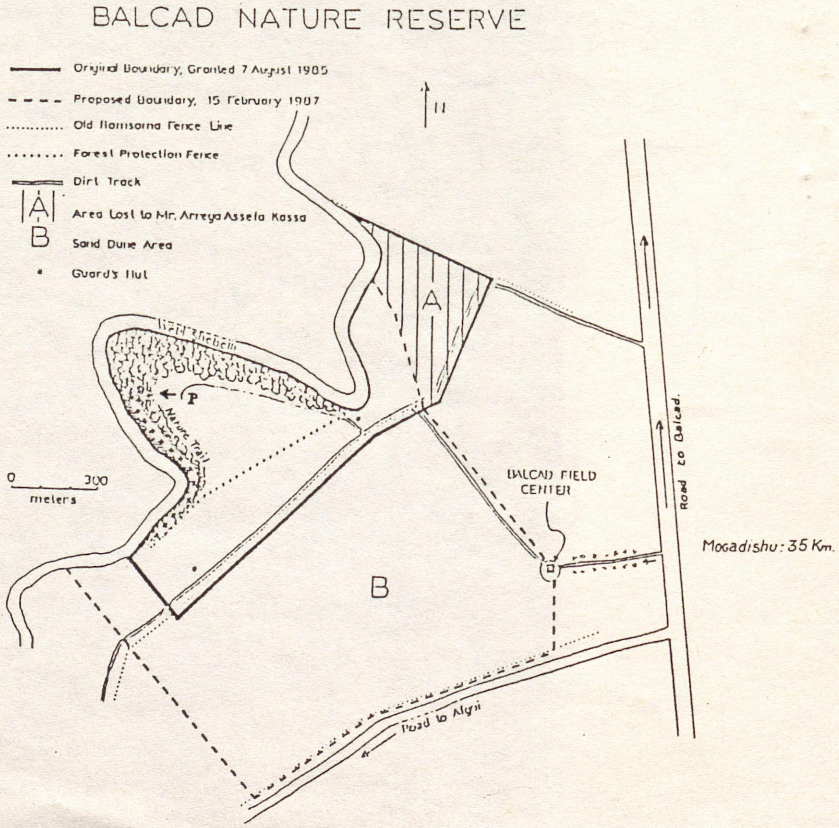
INTRODUCTION

The Balcad Nature Reserve protects a remnant of riverine forest, the likes of which once extended for hundreds of kilometers up and down the Shebelle River. This rich habitat of large trees and annual flooding supported a vast population of wildlife and plant life - an oasis of water and fertility in the surrounding dryer thorn bush and savanna.

The Reserve has been protected since 1985, with a major extention of bush covered upland sites in 1987, which includes the Balcad Field Center. Before its protection, the reserve was subject to grazing and woodcutting. Since these activities have been halted, we expect the vegetation to change rapidly, with the forest extending upland, and the bush becoming thicker. This will provide more cover and food for birds and other animals.

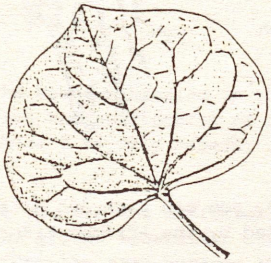
To get the most out of your visit to the Balcad Reserve, we suggest you carry binoculars and a bird book. Early morning and late afternoons are the best times for seeing birds and other animals.

We hope you will enjoy your visit to the Reserve. Please respect the animals living here. We hope you will support us in the conservation of this important relic habitat. Donations are needed for adequate fencing and equipping the Field Center.



STOP 1 - This area was in forest in 1972. Since being cut it has been grazed. The large mounds you see in the area were made by bulldozers .

- The yellow fruited plant nearby is Solanum jubae (waniinis, xanyd , cadhur or arundo). It is often found where animals have been penned in the past. The fruits and leaves can be dried and crushed to make medicines . This member of the nightshade family is poisonous .



- The common shrub you see around you with the heart-shaped leaves is Thespesia danis (kabxan, kobhan).

- Heliotropium pallans, (see Stop 12), is also found in this disturbed site .

- Trees nearby are:

Tamarindus indica (Stop 9)
Mimusops fruticosa (Stop 6)

NOTE: The wildlife on this trail should be respected. Never chase or frighten these animals: at best you won't see anymore, and at worst they could be dangerous if threatened. Remember, this is their home, and they have no where else to go .

STOP 2 - DANGER - THIS NEXT STOP IS A SERIES OF WARTHOGS DENS . THEY HAVE EXTREMELY SHARP TUSKS AND CAN BE DANGEROUS IF CHARGING. DO NOT STAND IN THE ENTRANCE TO THEIR DENS !

- You will usually see the warthogs from a distance, running away, with their tails pointed straightup in the air . They are out most of the day foraging and probably are not in their dens except from evening until dawn. The lack of predators in Somalia means that many warthogs are active at night as well, and some seem not to have a burrow at all. They are one of the few animals that enters its burrow in reverse -backing in ! Their dens are used by bats during the day, when they seek a dark place to sleep after their night's adventures .

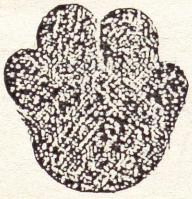
STOP 3 - The snag (standing dead tree trunk) next to you provides food and homes for many forest dwellers. The small holes were made by woodpeckers searching for insects to eat. Larger holes in both dead and live trees can serve as homes for cavity nesting birds and mammals, including bats. There are at least two species of bats in this forest .

- Dead wood not only provides food for numerous insects and microscopic animals and plants ; its decomposition also releases nutrients the remaining living plants take up through their roots in the soil . This fallen tree will make a nice bench until it decomposes .

STOP 4 - If you face down the trail, towards Stop 3, you can pick out a large nest in the nearby tree. It may be inhabited by the African Fish Eagle.

- You will often find a troop of baboon between here and the river . Two other monkeys can be found in this forest: the blue monkey and the vervet monkey. (See Stop 12 for characteristics) .

STOP 5 -



- Did you notice the Hippo path coming out of the river? This is a good spot to look for monitor lizards,too.

- Out in the river you might see a crocodile . (Be careful ! You might even find one at your feet that you thought was a log !)
If you have time, you might wait here to see brilliant colored King-fishers flying over the river, and possibly the African Fish Eagle (Haliaeetus vocifer) .

- A nearby tree is Garcinia livingstonei (See Stop 10). This tree produces large orange fruits that are eaten by local wildlife. Can you see any empty fruits lying on the ground ?

STOP 6 - You are now standing under a degaan (Mimusops fruticosa). These trees are often left when other trees are cleared in an area. They are important for their shade and their edible fruits.

degaan bark

- The beehive hanging in the tree is part of a research project linked with the eradication of tsetse flies . Can you tell if any bees live there ? Be very careful not to disturb them . Their sting is painful.

- Do you see the difference in the ground vegetation under the tree and the ground vegetation outside its branches ? Very little can grow under the tree because there is so little light. Plants get their food from sunlight .

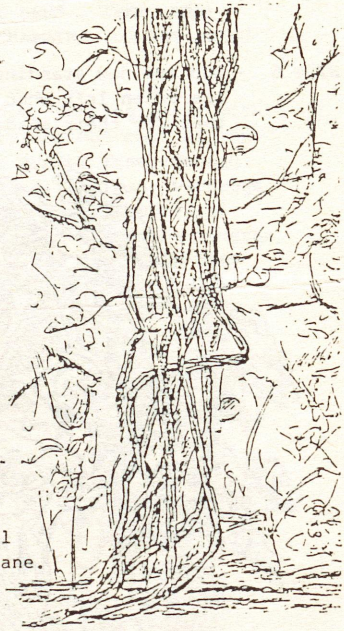
  The lack of even young seedlings under this tree suggests there may be a more active suppression of other plants by the degaan, perhaps from a chemical that is leached from fallen leaves. Such suppression is called allelopathy .

- Examine the soil pit and note the thick humus layer which results from rotting leaves and other vegetation mixing with the soil . This layer is very fertile.

NOTE: The quieter you are on this trail, the more wildlife you will see!

STOP 7

- The woody ropes hanging from the trees are called lianes (woody vines). They use larger plants for support to reach the sunlight. They may germinate from seeds on the ground and climb up the trees, or some germinate in the crotch or branch of a tree and send roots down to the soil. However, they are not parasitic on their associated trees, meaning they do not take nourishment from them. The one in front of you is in the grape family and is called Cissus quadrangularis (cayn, yanbac). Can you figure out why the botanist who named it called it " quadrangularis ". Don't break any of it off, other people will want to see this interesting liane.

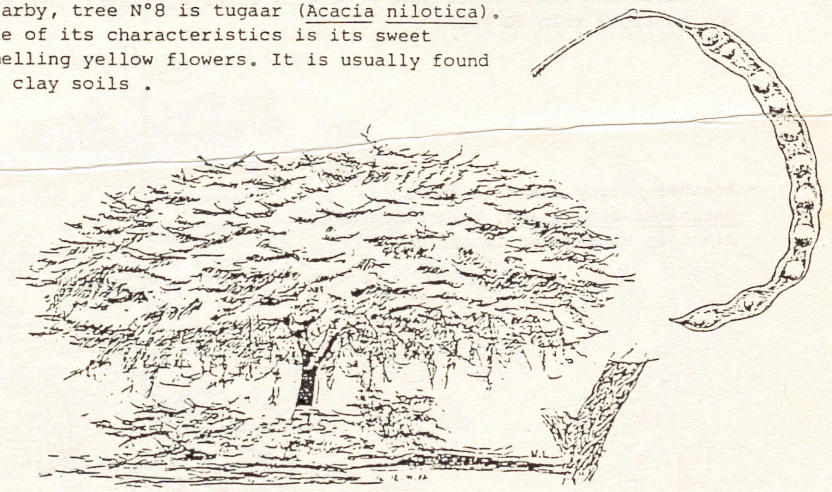


- Another shrub - qooqoon (Combretum constrictum) - is nearby .

It can sometimes be seen in bloom , with clusters of brilliant red flowers.

STOP 8 - You are under Acacia elatior. This species is highly valued in Somalia for the large area it shades . (See Stop 11)

- Nearby, tree N°8 is tugaar (Acacia nilotica). One of its characteristics is its sweet smelling yellow flowers. It is usually found on clay soils .



- Opposite to the Acacia is a Ficus sycamorus (dari) . (See Stop 10)

- At certain times of the year visitors will observe large numbers of giant, dark brown colored millipedes (hangarara) on the ground and on bushes or trees. Their movements are governed primarily by moisture : In dry conditions they burrow down and seek shelter in crevices , while during wet seasons their populations appear to increase explo - sively. Their diet consists mainly of leaf litter or other dead plant matter and they rarely damage living plants. When handled they roll up and eject a defensive, repulsive fluid which not only has an unpleasant smell but can also cause skin irritations .

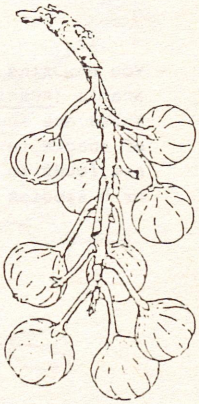
A second, smaller species, about 6 cm long and much flatter, is also common .

STOP 9 - These large old trees are Mimusops fruticosa. It is difficult to determine how old they are. Although they are large, they are on one of the most favorable sites in Somalia. Because they are so near the river and their roots have access to water all year, they may not be older than 50 years .

- Another nearby plant is the spiny Balanites aegyptiaca. This evergreen plant is widespread in Africa .

- Tree N°7 is also marked nearby. It is raqay (Tamarindus indica .) This plant is well known for the sweet and sour pulp that surrounds its seeds. When ripe, this pulp can be eaten raw, used to make a drink or used in cooking. The unripe seed pods are used as a medicine by Somali women. The tree produces fine shade - a cool place to go on a hot afternoon !

STOP 10 - The large tree by the river is a fig (Ficus sycamorus) (tree N°5). It produces round fruits full of tiny seeds. The fruits are cauliform: That is they hang directly from the trunk and main branches, in heavy branched masses. These fruits are eaten by wildlife in the area . If you look on the ground under the tree you may see old fruits. During the fruiting season this would be a good place to sit and watch for the animals attracted to the fruits .



- Monitor lizards are sometimes seen in this vicinity. They can grow to be 1,5 meters in length, and feed on small animals, eggs and carrion .

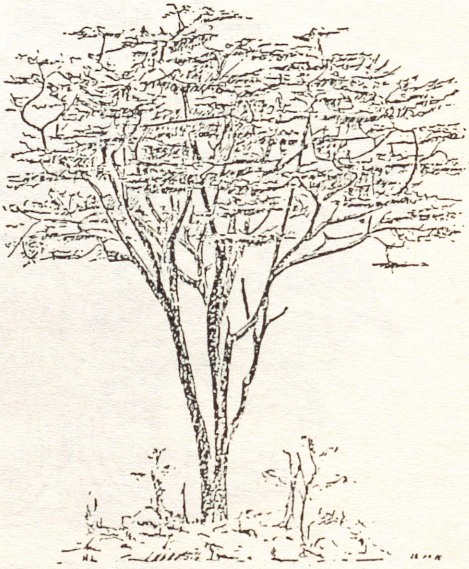
Tree N° 6
Garcinia livingstonei

STOP 11 - Across the river you may see hippos resting in the water under the overhanging vegetation.

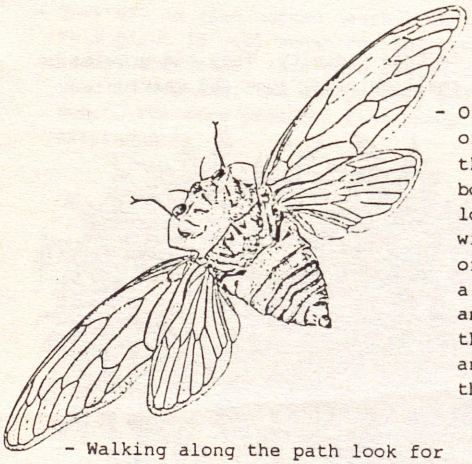
- This would be a good spot to sit in the shade and watch for birds . Some you might look for are :

Goliath Heron (Ardea goliath)
Green-backed Heron (Butorides striatus)
Hadada Ibis (Bostrychia hagedash)
Water Dikkop (Burhinus vermiculatus)

- You now find yourself under a large acacia (Acacia elatior) (tree N°4). There are several hundred species of acacia in the world and about 35 are found in Somalia. Of these , 8 or 9 species occur only in Somalia.

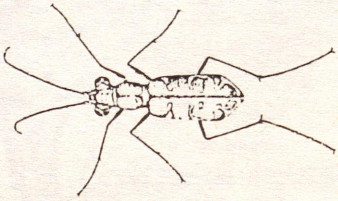


Acacia elatior



- Often you can hear the constant ring of the cicadas, particularly early in the rains . Cicadas are large, heavy bodied plant feeding bugs up to 5 cm long. They have large transparent wings, netted with a beautiful pattern of fine veins. The wings are held in a tent shape over the back when at rest, and it is by resonating the wings that it makes its call . The adults and nymphs feed by sucking plant juices, the nymphs underground on tree roots .

- Walking along the path look for tiger beetles (Myriochile melancholica) which are predators on other insects. You might mistake them for a swarm of flies, flitting along the ground in short bursts of flight, and then running a few centimeters. They are usually found within 20 feet of the river bank.



STOP 12 - This area, next to the river, was felled in 1985 as an access point to water livestock. As a result of this disturbance the vegetation is in the early stages of succession . One plant common in such situations is the Castor oil bean (Rincinus communis). Another is Helitropium pallans, a small plant with tiny white flowers curled into spiral .

Rincinus communis

Helitropium pallans

- Other trees in the area are :

Cordia rothii	(N°1) mareer	The fruit is edible and used to produce an oil.
Maytenus	(N°2)	
Mimusops fruticosa	(N°3)	This tree is used for charcoal and construction materials.

- A short distance up the river you can see a trough leading to dry land, as opposed to the normally steep river bank . This is where hippopotamus walk onto shore to graze during the evening. Are there any hippo foot-prints now ? When the river is low this animal moves upstream to deeper water .

- Across the river you will see a large tree . In the crotch of branches you can see a large nest of the Hamerkop (Scopus umbretta) . If you are lucky you will see this bird and sometimes you can see the Blue Monkey (Cercopithecus albogularis) in the same tree . The Blue Monkey is distinguished from the Vervet Monkey by its ears, white throat and dark legs, but no white on its brows.