

NATIONAL HERBARIUM AND BOTANIC GARDENS OF MALAWI

Brief Vegetation Survey Report for Shire Valley Transformation Program

Report Compiler: Elizabeth Mwafongo Center: Zomba Date(s): 2-4 November, 2020

Team composition

Elizabeth Mwafongo

Marlene Chikuni

Gladys Mkwapatira

Zacharia Magombo

Technicians

Driver

INTRODUCTION

Lengwe National Park is located in Chikwawa and about 40 miles southwest of Blantyre. Lengwe's topography consists of open deciduous and dense thickets of forests. Similarly, Majete Wildlife Reserve in Chikwawa and has served as a nature reserve since 1955, but reportedly "was a wildlife sanctuary in name only" by 2002. During the late 1970s and 1980s, charcoal burning, logging, and poaching decimated the area's wildlife, leaving few game other than antelope. The park's last elephant was killed in 1992. Majete Wildlife reserve occupies an area of 270 sq mi (700 km²) whilst Lengwe is 350 sq miles (900 sq km) in area.

The objective of the fieldwork was to carry out an inventory of economical plant species especially those that are targeted for charcoal making and hence have become rare and assess their conservation status.

METHODOLOGY

The team used motorized access to manoeuvre within Majete Wildlife Reserve on the first day and a general plant collection was done (Fig.1). In addition to general plant collection, all plant species encountered and their relative abundance were recorded as being common or rare by doing a birds eye view of their the area. In addition, the team did some data mobilization of past reports of the two targeted areas i.e. plant checklists of riverine flora of Shire at Majete and Lengwe Reserve.

RESULTS

Table 1 is a checklist of species recorded at the two reserves. The survey recorded Thirty-two and Twenty nine economic plant species were recorded in Majete and Lengwe respectively.

Cordyla africana, *Kigelia africana*., *Diospyros kirkii* and *Terminalia sericea* were the most common species.

Table 1: A preliminary checklist of species recorded

	MAJETE WILDLIFE RESERVE			
NO	FAMILY	GENUS	SPECIES	AUTHOR
1	Fabaceae	<i>Acacia</i>	<i>albida</i>	(Delile) A.Chev.
2	Fabaceae	<i>Acacia</i>	<i>nigrescens</i>	Oliv.
3	Fabaceae	<i>Acacia</i>	<i>nilotica</i>	(L.) Willd. ex Delile
4	Fabaceae	<i>Acacia</i>	<i>polyacantha</i>	Willd.
5	Bombacaceae	<i>Adansonia</i>	<i>digitata</i>	L.
6	Fabaceae	<i>Afzelia</i>	<i>quanzensis</i>	Welw.
7	Annonaceae	<i>Annona</i>	<i>senegalensis</i>	Pers.
8	Malvaceae	<i>Azanza</i>	<i>garckeana</i>	(F.Hoffm.) Exell & Hillc.
9	Arecaceae	<i>Borassus</i>	<i>aethiopum</i>	Mart.
10	Fabaceae	<i>Cassia</i>	<i>abbreviata</i>	Oliv.
11	Combretaceae	<i>Combretum</i>	<i>adenogonium</i>	Steud. ex A.Rich.
12	Combretaceae	<i>Combretum</i>	<i>imberbe</i>	Wawra
13	Combretaceae	<i>Combretum</i>	<i>zeyheri</i>	Sond.
14	Fabaceae	<i>Cordyla</i>	<i>africana</i>	Lour.
15	Sapindaceae	<i>Deinbollia</i>	<i>nyikensis</i>	Baker
16	Fabaceae	<i>Dichrostachys</i>	<i>cinerea</i>	(L.) Wight & Arn.
17	Fabaceae	<i>Faidherbia</i>	<i>albida</i>	(Delile) A.Chev.
18	Bignoniaceae	<i>Kigelia</i>	<i>africana</i>	(Lam.) Benth.
19	Anacardiaceae	<i>Lannea</i>	<i>discolor</i>	(Sond.) Engl.
20	Fabaceae	<i>Lonchocarpus</i>	<i>capassa</i>	Rolfe
21	Bignoniaceae	<i>Markhamia</i>	<i>obtusifolia</i>	(Baker) Sprague
22	Lamiaceae	<i>Ocimum</i>	<i>americanum</i>	L.
23	Fabaceae	<i>Pericopsis</i>	<i>angolensis</i>	(Baker) Meeuwen
24	Euphorbiaceae	<i>Pseudolachnostylis</i>	<i>maprouneifolia</i>	Pax
25	Fabaceae	<i>Pterocarpus</i>	<i>angolensis</i>	DC.
26	Anacardiaceae	<i>Sclerocarya</i>	<i>birrea</i>	(A.Rich.) Hochst.

27	Anacardiaceae	<i>Sclerocarya</i>	<i>birrea</i>	(A.Rich.) Hochst.
28	Sterculiaceae	<i>Sterculia</i>	<i>africana</i>	(Lour.) Fiori
29	Fabaceae	<i>Tamarindus</i>	<i>indica</i>	L.
30	Combretaceae	<i>Terminalia</i>	<i>sericea</i>	Burch. ex DC.
31	Olacaceae	<i>Ximenia</i>	<i>caffra</i>	Sond.
32	Rhamnaceae	<i>Ziziphus</i>	<i>mucronata</i>	Willd.
	SPECIES IN ABUNDANCE			
1	Fabaceae	<i>Cordyla</i>	<i>africana</i>	Lour.
2	Bignoniaceae	<i>Kigelia</i>	<i>africana</i>	(Lam.) Benth.
3	Ebenaceae	<i>Diospyros</i>	<i>kirkii</i>	Hiern
4	Combretaceae	<i>Terminalia</i>	<i>sericea</i>	Burch. ex DC.
	LENGWE WILDLIFE RESERVE			
1	Fabaceae	<i>Acacia</i>	<i>nigrescens</i>	Oliv.
2	Fabaceae	<i>Acacia</i>	<i>nilotica</i>	(L.) Willd. ex Delile
2	Bombacaceae	<i>Adansonia</i>	<i>digitata</i>	L.
4	Fabaceae	<i>Burkea</i>	<i>africana</i>	Hook.
5	Fabaceae	<i>Brachystegia</i>	<i>utilis</i>	Burt Davy & Hutch.
6	Rubiaceae	<i>Catunaregam</i>	<i>spinosa</i>	(Thunb.) Tirveng.
7	Fabaceae	<i>Cordyla</i>	<i>africana</i>	Lour.
8	Fabaceae	<i>Colophospermum</i>	<i>mopane</i>	(J.Kirk ex Benth.) J.Kirk ex J.L. onard
9	Combretaceae	<i>Combretum</i>	<i>adenogonium</i>	Steud. ex A.Rich.
10	Combretaceae	<i>Combretum</i>	<i>imberbe</i>	Wawra
11	Fabaceae	<i>Dalbergia</i>	<i>melanoxylon</i>	Guill. & Perr.
12	Apocynaceae	<i>Diplorhynchus</i>	<i>condylocarpon</i>	(Mull.Arg.) Pichon
13	Euphorbiaceae	<i>Euphorbia</i>	<i>ingens</i>	E.Mey. ex Boiss.
14	Flacourtiaceae	<i>Flacourtia</i>	<i>indica</i>	(Burm.f.) Merr.
15	Fabaceae	<i>Julbernardia</i>	<i>globiflora</i>	(Benth.) Troupin
16	Anacardiaceae	<i>Lannea</i>	<i>discolor</i>	(Sond.) Engl.
17	Fabaceae	<i>Lonchocarpus</i>	<i>capassa</i>	Rolfe
18	Euphorbiaceae	<i>Pseudolachnostylis</i>	<i>maprouneifolia</i>	Pax
19	Anacardiaceae	<i>Sclerocarya</i>	<i>birrea</i>	(A.Rich.) Hochst.
20	Sterculiaceae	<i>Sterculia</i>	<i>africana</i>	(Lour.) Fiori
21	Strychnaceae	<i>Strychnos</i>	<i>innocua</i>	Delile
22	Fabaceae	<i>Tamarindus</i>	<i>indica</i>	L.

23	Combretaceae	<i>Terminalia</i>	<i>sericea</i>	Burch. ex DC.
24	Olacaceae	<i>Ximenia</i>	<i>americana</i>	L.
25	Olacaceae	<i>Ximenia</i>	<i>caffra</i>	Sond.
26	Rhamnaceae	<i>Ziziphus</i>	<i>mucronata</i>	Willd.
27	Fabaceae	<i>Acacia</i>	<i>nigrescens</i>	Oliv.
28	Fabaceae	<i>Dalbergia</i>	<i>melanoxylon</i>	Guill. & Perr.
29	Fabaceae	<i>Colophospermum</i>	<i>mopane</i>	(J.Kirk ex Benth.) J.Kirk ex J.L. onard

What is interesting about these two areas is that it does have tree species which are considered as rare outside of the two reserves due to charcoal burning, timber harvesting and fuel wood use. Fig. 2 is a stand of *Dalbergia melanoxylon* observed at Lengwe. This species is rare outside of the reserve and in Malawi due to its use in timber which is sought after within and outside Malawi as it is used in the manufacture of musical instruments and fine furniture. It is considered as Near Threatened globally but needs to be re-evaluated nationally.



Figure 1; Some of the team members doing general plant collection at Majete Wildlife Reserve



Figure 2 A stand of Dalbergia melanoxylon Guill. & Perr.