Contribution To The Inventory Of The Fabaceous Species Distributing In Shwebo Township Of Myanmar

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Abstract

The plant resources of Fabaceae distributing in Shwebo Township extends from latitudes 22° 29´ North to 22° 41´ North and longitudes 95° 29´East to 95° 58´ East located in Central Myanmar of the dry zone, has been recorded. The topography of Shwebo Township can be divided the western plain called Mu Valley and the slightly hilly eastern part. Totally 71 species belonging to 38 genera of Fabaceae were recorded into the study area. The 15 species belonging to the genera *Acacia, Albizia, Desmanthus, Leucaena, Pithecellobium, Prosopis, Samanea, Senegalia, Vachellia* are in Subfamily Mimosoideae. The 16 species of the genera *Bauhinia, Caesalpinia, Cassia, Delonix, Parkinsonia, Peltophorum,* and *Senna* deal with Subfamily Caesalpinoideae and the remaining 40 species under the genera *Aeschynomene, Alysicarpus, Butea, Canavalia, Cajanus, Crotalaria, Cullen, Dalbergia, Derris, Desmodium, Erythrina, Gliricidia, Indigofera, Melilotus, Millettia, Tephrosia*and *Teramnus* are members of Subfamily Papilionoideae. The inventory of Fabaceae in Shwebo Township will partially accomplish the flora of the central dry area of Myanmar and give the valuable information of plant resources to further researchers who interested in local species of that area in various ways.

Keywords: Species inventory, Fabaceae, Shwebo Township

Introduction

The plant resources of Fabaceae distributing in Shwebo Township, one of the 38 Townships of Sagaing Region and it extends from latitudes 22° 29´ north to 22° 41´ north and longitudes 95° 29´east to 95° 58´ east located in Central Myanmar of the dry zone, has been studied. It stands on Mandalay-Myitkyina railroad and is 119.1 kilometers away to the northwest of Mandalay. The extent of east-west is about 48.3 kilometers and north-south is 22.5 kilometers and total area is 1067.5 square kilometers or 263803 acres. The river Ayeyarwadylimited the boundary on the east and the west is Mu river. Map of the studied floristic area is shown in Figure 1.

The topography of Shwebo Township can be divided into two positions. The western plain is almost a plain with no higher elevation called Mu Valley. The area is very fertile and almost flat and so it will remain to be a major region of agriculture. It constitutes 60 percent of the total area of Shwebo Township.The eastern part is slightly hilly and Than-Dahat forests are grown mixing with some xerophytes. Some of the areas are flat cultivated land. The eastern hills with Ayeyarwady valley are unlike the well-watered irrigated tracts to the west and it solely depends upon seasonal rain. Nowadays, Mahanandalake supplies water for the multipurpose projects, such as agriculture and animal husbandry as well as domestic use**.** Apart from Mu, Ayeyarwady and Kopin Chaung, the remaining streams are seasonal and no water during summer since Shwebo Township lies in dry zone of Myanmar.

The complete taxonomic work is the product of knowledge of the plants growing naturally. The information accumulated from these studies is fundamental to the scientific knowledge of the inventory of the earth's plant resources. Hla Aye

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(1977) had researched angiosperms along the roadside between Shwebo and Kyaukmyaung. His study area includes in the eastern part of Shwebo Township. He revealed 229 species from 174 genera of 66 families. However, the accumulated knowledge of Shwebo Township's flora is far from perfect until the present time. Thein Htun (1984) studied the forest and timber production from eastern Sagaing Division. Thida Aye (1998) recorded the regional geography of Shwebo Township. Nyo Nyo San researched the urban study of Shwebo Township in 1984. Although Myanmar researchers mostly studied the floristic works in various regions, the scientific publications on the inventory of species concerning Myanmar are very scarce. The list of inventory is very important for the future works dealing with diversity, like preparing the flora publication and preparation of red data books.

Although the area of ShweboTownship situated as part of a Dry belt, most of the soil is alluvial and very fertile for cultivation. In the rainy season, the various species of herbs and shrubs are densely growing in many parts of the area. To achieve the complete information of the local floristic area, it is needed to inventory the list of plants in different areas of Myanmar. The aims and objectives of this present research are to identify the fabaceous plants of Angiosperms, to get the inventory of Fabaceae in Shwebo Township, the part of Flora of Sagaing Region of Myanmar, and to achieve the valuable information of fabaceousspecies.

Materials and Methods

Fabaceous members of the angiosperms in Shwebo Township were collected during the years 2007-2010. Plant parts including leaves, inflorescences, flowers and fruits were collected. Precise locations and the habit of nature including the colour of flowers were recorded in the field notes. Identification of species was carried out by referring the key and description stated in Flora of British India (Hooker 1881-87), Indian Trees (Brandis 1906), Flora of Java (Backer& Brick 1965), Flora of Malaysiana (Nielson 1992), and Flora of Ceylon (Dassanayake 1980-2001). The verification was also made by comparing with photographs, images, and examination of the herbarium specimens as the earlier record.

Some floristic information got from the information of web site "Floras" (http://www.efloras.org). The nomenclatural data were finalized by referring to the web site of the International plant Name Index (https://www.ipni.org), Tropicos (www.tropicos.org), and the plant list (https;//www. theplantlist.org). Local names were recorded by local inhabitants and previous records like the checklist of Hundley (1987) and Kress *et al* .(2003). The specimens are left in the Herbarium of Botany Department, Mandalay University to check. The generic and specific arrangements under the subfamilies were placed alphabetically.

Results

A total of 71 species belonging to 38 genera of 3 subfamilies, viz. Mimosoideae, Caesalpinoideae, and Papilionoideae of the family Fabaceae, were identified and the inventory of species recorded in detail citation. The location of the collected species was stated in Table 1.

A. Fabaceae subfam. Mimosoideae

1.*Acacia catechu* (L.f) Willd. Sp. Pl. 4(2): 1079. 1806.

Mimosa catechu L. f., Suppl. Pl. 439. 1781[1782]

2.*Acacia concinna* (Willd.)DC., Prod. 2: 464.1825

Mimosa concinna Willd., Sp.Pl. 4(2): 1039. 1806

3.*Acacia farnesiana* (L.) Willd.Sp. Pl. 4(2): 1083–1084. 1806.
Mimosa farnesiana L., Sp.Pl. 1:521. 1753.
4.***Acacia pennata* (L) Willd , Sp. Pl. 4(2): 1090–1091. 1806.**
Mimosa pennata L., Sp.Pl. 1: 522.1753.
Senegalia pennata (L.) Maslin, Nuytsia 22(6): 466. 2012.
5.*Acacia senegal* (L.) Willd., Sp. Pl. 4(2): 1077. 1806.
Mimosa senegal L., Sp.Pl. 1:521. 1753.
Senegalia senegal (L.) Britton, Sci. Surv. Porto Rico & Virgin Islands. 6: 538. 1930.
6.*Albizia lebbeck* (L.) Benth., London J. Bot. 3: 87. 1844.
Mimosa lebbeck L., Species Plantarum 1: 516. 1753.
Acacia lebbeck (L.) Willd., Sp. Pl. Editioquarta 4(2): 1066. 1806.
7.*Albizia lebbekoides* (DC.) Benth., London J. Bot. 3: 89. 1844.
Acacia lebbekoides DC., Prodr. Syst. Nat. Reg. Veg. 2: 467. 1825.
8.*Desmanthus virgatus* (L.) Willd., Sp. Pl. 4(2): 1047. 1806.
Mimosa virgata L., Species Plantarum 1: 519. 1753.
Acacia virgata (L.) Gaertn.Fruct. Sem. Pl. 2: 317. 1791.
Acuan virgatum (L.) Medik. ,Theodora Speciosa 62. 1786.
9.*Leucaena leucocephala* (Lam.) de Wit., Taxon 10(2): 54. 1961.
Mimosa leucocephala Lam., Encycl. Méth., Bot. 1(1): 12. 1783.
10.*Pithecellobium dulce* (Roxb.) Benth., London Journal of Botany 3: 199. 1844.
Mimosa dulcis Roxb., Pl. Coromandel 1(4): 67–68, pl. 99. 1798.
Inga dulcis (Roxb.) Willd., Sp. Pl. 4(2): 1005. 1806.
11.*Prosopis juliflora* (Sw.) DC., Prodr. 2: 447. 1825.
Mimosa juliflora Sw., Nova Genera et Species Pl. seuProdr. 85. 1788.
Neltuma juliflora (Sw.) Raf., Sylva Telluriana 119. 1838.
12.*Samanea saman* (Jacq) Merr., J. Wash. Acad. Sci. 6(2): 47. 1916.
Mimosa saman Jacq., Fragmenta Botanica 15, pl. 9. 1800.
Inga saman (Jacq.) Willd.,Sp. Pl.4(2): 1024. 1806.
13.*Senegalia kekapur* (I.C. Nielsen) Maslin, Seigler & Ebinger, Blumea 53(1): 40. 2013.
Acacia kekapur I.C. Nielsen, Opera Bot. 81:13.1895.
14.*Vachellia leucophloea* (Roxb.) Maslin, Seigler&Ebinger,Blumea 58(1): 42. 2013.
Acacia leucophloea (Roxb.) Willd. Sp. Pl. 4(2): 1083. 1806.
Mimosa leucophloea Roxb., Pl. Coromendal. 2: 27, pl. 150.1819
15.*Vachellia nilotica* (L.) P.J.H. Hurter &Mabb., Mabberley's Plant-Book ed. 3: 1021. 2008.
Mimosa nilotica L., Species Plantarum 1: 521–522. 1753.
Mimosa arabica Lam., Encyc. 1: 19. 1783.
Acacia arabica (Lam.) Willd., Sp. Pl. 4. 1085. 1806.
Acacia nilotica(L.) Willd. ex Delile, Descr. Égypte, Hist. Nat. 2(1): 79.1813.

B. Fabaceae subfam. Caesalpinoideae

16.*Bauhinia diphylla* Buch.-Ham. in Symes Embassy (ed. 2) 3: 311. 1846.
Lysiphyllum diphyllum (Buch.-Ham., in Symes) de Wit, Reinwardtia3: 431. 1956.
17.*Bauhinia hirsute* Weinm., Syll. Pl. Nov. 2: 9. 1828.
18.*Caesalpinia bonduc* (L.) Roxb., Fl. Ind. (ed. 1832) 2: 362. 1832.

Guilandina bonduc L., Species Plantarum 1: 381. 1753.

19.*Caesalpinia digyna* Rottler, Ges. Naturf. Freunde Berlin Neue Schriften4: 198–200, pl. 3. 1803.

20.*Cassia fistula* L., Sp. Pl. 1: 377–378. 1753.

Cathartocarpus fistula (L.) Pers., Synopsis Plantarum 1: 459. 1805.

21.*Cassia javanica* L. subsp. *renigera*(Wall. ex Benth.) K. Larsen, Nordic J. Bot. 13(4): 404. 1993.

Cassia renigera Wall. ex Benth., Trans. Linn. Soc. London 27: 518. 1871.

22.*Delonix regia* (Bojer ex Hook.)Raf., Fl. Tellur. 2: 92. 1836/1837

Poinciana regia Bojer ex Hook. ,Bot. Mag. 56: pl. 2884. 1829. ,

23.*Parkinsonia aculeata* L., Sp. Pl. 1: 375. 1753.,

24.*Peltophorum pterocarpum*(DC.) Backer ex K. Hyene, Nutt. Pl. Ned.-Ind. ed.2 2: 755.1927.

Inga pterocarpa DC., Prodr. Syst. Nat. Reg. Veg. 2: 441. 1825.

25.*Senna alata* (L.) Roxb., Fl. Ind.ed. 2: 349. 1832.

Cassia alata L. , Species Plantarum 1: 378. 1753.

26.*Senna auriculata*(L.) Roxb., Fl. Ind. ed. 2: 349. 1832.

Cassia auriculata L., Species Plantarum 1: 379. 1753.

27.*Senna bicapsularis* (L.) Roxb., Fl. Ind. ed. 2: 342. 1832.

Cassia bicapsularis L., Species Plantarum 1: 376. 1753.

28.*Senna siamea*(Lam.) H.S. Irwin & Barneby, Mem. New York Bot. Gard. 35: 98. 1982.

Cassia siamea Lam., Encycl.1(2): 648–649. 1785.

29.*Senna spectabilis* (DC.) H.S. Irwin & Barneby, Mem. New York Bot. Gard. 35: 600.1982.

Cassia spectabilis DC., Cat. Pl. HortiMonsp. 90. 1813.

30.*Senna surattensis* subsp. *glauca* (Lam.) X.Y. Zhu, Legum. China. 1992

Cassia glauca Lam., Encycl.1(2): 647. 1785.

Senna surattensis var. *glauca* (Lam.) X.Y. Zhu, Legumes of China 31. 2007.

Common name: *Eng*.-Golden senna: *Local*-Pyiban-nyo

31.*Senna tora* (L.) Roxb., Fl. Ind. (ed. 1832) 2: 340. 1832.

Cassia tora L., Species Plantarum 1: 376. 1753.

Common name:*Eng*.-Java bean;foetid cassia; *Local*-Dan-gywe

C. Fabaceae subfam. Papilionoideae

32.*Aeschynomene americana* L. , Sp.Pl. 2: 713. 1753.

33.*Aeschynomene indica* L., Species Plantarum 2: 713–714. 1753.

34.*Alysicarpusbupleurifolius* (L.)DC., Prod. 2. 1825.

Hedysarum bupleurifolium L., Species Plantarum 2: 745–746. 1753.

35.*Alysicarpus rugosus*(Willd.) DC., Prod. 2. 353. 1825.

Hedysarum rugosum Willd., Species Plantarum. 3(2): 1172–1173. 1802.

36.*Alysicarpus vaginalis* (L.) DC., Prod. 2:353. 1825.

Hedysarum vaginale L., Species Plantarum 2: 746. 1753.

37.*Butea monosperma* (Lam.) Taub., Nat. Pflanzenfam. 3(3): 366, f. 131M–N. 1894.

Erythrina monosperma Lam., Encycl.2(1): 391–392. 1786.

38.*Canavalia ensiformis* (L.) DC., Prod. 2:404. 1825.

Dolichos ensiformis L., Species Plantarum 2: 725–726. 1753.

39.*Cajanus villosus* (Benth. ex Baker.f) Maesen, Agric. Univ. Wageningen Pap. 85(4): 205. 1985.

Atylosia villosa Benth. ex Baker f., Fl. Brit. India2(4): 214. 1876.

40.*Crotalaria albida*B. Hyene ex Roth, Nov. Pl. Sp. 333. 1821.

41.*Crotalaria spectabilis* Roth, Novae Plantarum Species 341–342. 1821.

Crotalaria leschenaultii DC., Prod. 2:125. 1825.

42.*Crotolaria medicaginea* Lam., Encycl. 2(1): 201. 1825.

43.*Crotalaria mysorensis* Roth, Nov. Pl. Sp. 338. 1821.

44.*Crotalaria orixensis* Willd., Ges.Naturf. Freunde Berlin NeueSchriften 4: 217. 1803.

45.*Crotalaria quinquefolia* L., Species Plantarum 2: 716. 1753.

46.*Crotalaria retusa* L., Sp. Pl. 2: 715. 1753.

47.*Cullen corylifolium* (L.) Medik., Vorles. Churpfälz. Phys.-Ökon. Ges. 2: 381. 1787.

Psoralea corylifolia L., Species Plantarum 2: 764. 1753.

48.*Dalbergia kurzii* PrainJ. Asiat. Soc. Bengal, Pt. 2, Nat. Hist., 66: 450. 1897.

49.*Dalbergia lanceolaria* L. f., Suppl. Pl. 316. 1781.

50.*Dalbergia sisso* Roxb. ex DC., Prodr. 2. :416. 1825.

51.*Derris scandens* (Roxb.) Benth., J. Linn. Soc., Bot. 4(Suppl.): 103–104. 1860.

Dalbergia scandens Roxb., Pl. Coromandel 2: 49, pl. 192. 1798.

52.*Desmodium multiflorum* DC., Ann. Sci. Nat. (Paris) 4: 101. 1825.

53.*Desmodium triflorum* (L.) DC., Prodr. 2: 334. 1825.

Hedysarum triflorum L., Sp. Pl.: 749. 1753.

54.*Erythrina euodiphylla* Hassk., Hort. Bogor. Descr.1: 178. 1858.

55.*Erythrina microcarpa* Koord. & Valeton, Exkurs.-Fl. Java2: 401. 1912.

56.*Erythrina variegata* L., Herb. Amboin. 10. 1754.

57.*Gliricidia sepium*(Jacq.) Kunth ex Walp., Repert. Bot. Syst. 1(4): 679. 1842.

Robinia sepium Jacq. , Enum. Syst. Pl. 28. 1760.

58.*Indigofera linifolia* (L.f) Retz, Observ. Bot. 4: 29. 1786.

59.*Indigofera linnaei* Ali, Bot. Not.111: 549. 1958.

60.*Indigofera longiracemosa* Boiv. ex Bail., Bull. Mens. Soc. Linn. Paris1(50): 399. 1883.

61.*Indigofera tinctoria* L.,Sp. Pl. 2: 751. 1753.

62.*Indigofera trita* L.f., Suppl. Pl. 335. 1781.

63.*Melilotus alba*Medik., Vorles. Churpfälz. Phys.-Ökon. Ges. 2: 382. 1787.

64.*Millettia peguensis* Ali, Kew Bulletin 21(3): 489–490. 1968.

65.*Sesbania sesban*(L.) Merr., Philipp. J. Sci. 7(4): 235. 1912.

66.*Sesbania javanica* Miq., Fl. Ned. Ind. 1(1): 288. 1855.

67.*Stylosanthes humilis*Kunth, Nov. Gen. Sp. (quarto ed.) 6: 506, pl. 594. 1823.

68.*Stylosanthes scabra* Vogel, Linnaea 12: 69–70. 1838.

69.*Taverniera nummularia* DC., Mém.Légum. 340. 1823.

70.*Tephrosia villosa* (L.) Pers., Syn. Pl. 2(2): 329. 1807.

Cracca villosa L., Species Plantarum 2: 752. 1753.

71.*Teramnus labialis* (L.f.) Spreng., Syst. Veg. [Sprengel] 3: 235. 1826.

Glycine labialis L. f., Suppl. Pl.325–326. 1781[1782]. (Apr 1782)

Table 1. List of specimens and collected numbers

No.	Scientific name	Common name	Specimens Location & Collection no.
1	***Acacia catechu***	*Eng.*- Catechu; black cutch; *Local*-Sha	N. Lat. 22˚ 38′ 30″ and E. Long. 95˚ 40′ 28″, 84.65 m above sea-level; Collection no.792
2	***Acacia concinna***	*Eng*- Sour acacia; *Local*-Kinmon-chin	N. Lat. 22˚ 35′ 30.6″ and E. Long. 95˚ 55′ 47.9″, 95 m above sea-level; KhinHnin Yee Collection no.802
3	***Acacia farnesiana***	*Eng.*- Sweet acacia; *Local*-Nan-lonkyaing	N. Lat. 22˚ 32′ 57″ and E. Long. 95˚ 35′ 41″, 91.49 m above sea-level; Collection no.922
4	***Acacia pennata***	*Eng.*-Climbing acacia*; Local*- Su-yit	N. Lat. 22˚ 34′ 29.5″ and E. Long. 95˚ 47′ 21.0″, 116 m above sea-level; Collection no.645
5	***Acacia senegal***	*Eng.*-Senegal gum; *Local*- Unknown	N. Lat. 22˚ 31′ 49″ and E. Long. 95˚ 41′ 20″, 112.78 m above sea-level; Collection no.894
6	***Albizia lebbeck***	*Eng.*-Indian siris; *Local*-Ba-mar-kokko	N. Lat. 22˚ 32′ 59″ and E. Long. 95˚ 35′ 45″, 94.5 m above sea-level; Collection no.803
7	***Albizia lebbekoides***	*Eng.*-Siris; *Local*-Bon-me-za	N. Lat. 22˚ 34′ 29.5″ and E. Long. 95˚ 47′ 21.0″, 116 m above sea-level; Collection no.896.
8	***Desmanthus virgatus***	*Eng.*-Wild tantan; *Local*-Unknown	N. Lat. 22˚ 34′ 00″ and E. Long. 95˚ 55′ 00″, 105.5 m above sea-level; Collection no.925
9	***Leucaenaleucocephala***	*Eng.*-White Leadtree: *Local*- Baw-za-gaing,	N. Lat. 22˚ 31′ 53.1″ and E. Long. 95˚ 41′ 21.8″, 109.2 m above sea-level; Collection no.927
10	***Pithecellobium dulce***	*Eng.*-Manila tamarind; *Local*-Tayoke-magyi	N. Lat. 22˚ 38′ 30″ and E. Long. 95˚ 40′ 28″, 84.65 m above sea-level; Collection no.929
11	***Prosopis juliflora***	*Eng.*-Mesquite; *Local*-Gan-ta-ya, Gandasein	N. Lat. 22˚ 38′ 30″ and E. Long. 95˚ 40′ 28″, 84.65 m above sea-level; Collection no.898
12	***Samanea saman***	*Eng.*-Rain Tree; *Local*-Kala-kokko	N. Lat. 22˚ 32′ 57″ and E. Long. 95˚ 35′ 41″, 91.49 m above sea level; Collection no. 203
13	***Senegalia kekapur***	*Eng.*-Cha-om acacia; *Local*- Su-boke-galay	N. Lat. 22˚ 34′ 50.5″ and E. Long. 95˚ 50′ 25.1″, 129.6 m above sea-level; Collection no.924
14	***Vachellia leucophloea***	*Eng.*-Kuteera-gum; *Local*- Hta-naung	N. Lat. 22° 31' 49" and E. Long. 95° 41' 20", 112 m above sea-level; Collection no.357
15	***Vachellia nilotica***	*Eng.*-Arabic gum; *Local*- Su-phyu	N. Lat. 22° 31' 49" and E. Long. 95° 41' 20", 112 m above sea-level; Collection no.360
16	***Bauhinia diphylla***	*Eng.*-Mountain ebony; *Local*-Phalan-nwe	N. Lat. 22˚ 34′ 29.5″ and E. Long. 95˚ 47′ 21.0″, 116 m above sea-level; Collection no.900
17	***Bauhinia hirsuta***	*Eng.*- White Bauhinia; *Local*- Swe-daw-phyu	N. Lat. 22˚ 34′ 29.5″ and E. Long. 95˚ 47′ 21.0″, 116 m above sea-level; Collection no.931
18	***Caesalpinia bonduc***	*Eng.*-Nicker bean; Local Name: Ka-lein	N. Lat. 22˚ 35′ 10″ and E. Long. 95˚ 38′ 24″, 95.40 m above sea-level; Collection no.932
19	***Caesalpinia digyna***	*Eng.*-Teri pods; *Local*-Taw-kinmon-yaing.	N. Lat. 22˚ 34′ 29.5″ and E. Long. 95˚ 47′ 21.0″, 116 m above sea-level; Collection no. 461
20	***Cassia fistula***	*Eng.*-Indian Laburnum; *Local*-Ngu-shwe-wa	N. Lat. 22˚ 32′ 57″ and E. Long. 95˚ 35′ 41″, 91.49 m above sea-level; Collection no.615
21	***Cassia javanica* subsp. *renigera***	*Eng.*-Pink shower; *Local*- Ngu-sat	N. Lat. 22˚ 34′ 37″ and E. Long. 95˚ 44′ 22″, 88.39 m above sea-level; Collection no.618
22	***Delonix regia***	*Eng.*-Flame tree; *Local*-Sein-ban-gyi	N. Lat. 22˚ 34′ 37″ and E. Long. 95˚ 44′ 22″, 88.39 m above sea-level; Collection no.62
23	***Parkinsonia aculeata***	*Eng.*-horse bean; *Local*-Mya-sein	N. Lat. 22˚ 38′ 38.1″ and E. Long. 95˚ 40′ 31.9″, 84.5 m above sea-level; Collection no.934
24	***Peltophorum pterocarpum***	*Eng.*-Copper Pod Tree; *Local*-Kalapadauk	N. Lat. 22˚ 34′ 08″ and E. Long. 95˚ 42′ 05″, 87.48 m above sea-level; Collection no.936

25	***Senna alata***	*Eng.*-Candlestick; *Local*-Thinbaw-mazali	N. Lat. 22° 34′ 37″ and E. Long. 95° 44′ 22″, 88.39 m above sea-level; Collection no.938
26	***Senna auriculata***	*Eng.*-Avaramsenna; *Local*- Peik-thin-gat	N. Lat. 22° 38′ 30″ and E. Long. 95° 40′ 28″, 84.65 m above sea-level; Collection no.620
27	***Senna bicapsularis***	*Eng.*-Wild currant; *Local*- Unknown	N. Lat. 22° 34′ 37″ and E. Long. 95° 44′ 22″, 88.39 m above sea-level; Collection no.75
28	***Senna siamea***	*Eng.*-Kassod tree; *Local*-Mezali	N. Lat. 22° 34′ 08″ and E. Long. 95° 42′ 05″, 87.48 m above sea-level; Collection no.622
29	***Senna spectabilis***	*Eng.*-American cassia; *Local*- Panama-ngu	N. Lat. 22° 34′ 37″ and E. Long. 95° 44′ 22″, 88.39 m above sea-level; Collection no.940
30	***Senna surattensis* subsp. *glauca***	*Eng.*-Golden senna: *Local*- Pyiban-nyo	N. Lat. 22° 34′ 37″ and E. Long. 95° 44′ 22″, 88.39 m above sea-level; Collection no.805
31	***Senna tora***	*Eng.*-Java bean; *Local*-Dan-gywe	N. Lat. 22° 32′ 57″ and E. Long. 95° 35′ 41″, 91.49 m above sea-level; Collection no.941.
32	***Aeschynomene americana***	*Eng.*- American joint-vetch;*Local*- Unknown	N. Lat. 22° 34′ 37″ and E. Long. 95° 44′ 22″, 88.39 m above sea-level; Collection no.768
33	***Aeschynomene indica***	*Eng.*-Indian joint-vetch; *Local*- Unknown	N. Lat. 22° 34′ 37″ and E. Long. 95° 44′ 22″, 88.39 m above sea-level;Collection no.967
34	***Alysicarpus bupleurifolius***	*Eng.*-Alyce Clover; *Local*- Unknown	N. Lat. 22° 34′ 37″ and E. Long. 95° 44′ 22″, 88.39 m above sea-level; Collection no. 441
35	***Alysicarpus rugosus***	*Eng.*-Red moneyword; *Local*- Unknown	N. Lat. 22° 34′ 50.5″ and E. Long. 95° 50′ 25.1″, 129.6 m above sea-level; Collection no.719
36	***Alysicarpusvaginalis***	*Local*- Than-manaing-kyauk-manaing	N. Lat. 22° 34′ 37″ and E. Long. 95° 44′ 22″, 88.39 m above sea-level; Collection no.748
37	***Butea monosperma***	*Eng.*-Flame of the forest:*Local*- Pauk	N. Lat. 22° 34′ 29.5″ and E. Long. 95° 47′ 21.0″, 116 m above sea-level; Collection no.807.
38	***Canavalia ensiformis***	*Eng.*- Horse Bean; *Local*- Taw-pe-dalet	N. Lat. 22° 34′ 29.5″ and E. Long. 95° 47′ 21.0″, 116 m above sea-level; Collection no. 450
39	***Cajanus villosus***	*Eng.*-Wild cajan; *Local*-Tawpewar	N. Lat. 22° 34′ 37″ and E. Long. 95° 44′ 22″, 88.39 m above sea-level; Collection no.717
40	***Crotalaria albida***	*Eng.*-Rattlepod; *Local*-Unknown	N. Lat. 22° 35′ 33″ and E. Long. 95° 51′ 51″, 173 m above sea-level; Collection no.902
41	***Crotalaria spectabilis***	*Eng.*-Showy crotalaria; *Local*- Unknown	N. Lat. 22° 34′ 37″ and E. Long. 95° 44′ 22″, 88.39 m above sea-level; Collection no.773
42	***Crotolaria medicaginea***	*Eng.*-Trefoil Rattle pod; *Local*- Taw pae lay	N. Lat. 22° 32′ 57″ and E. Long. 95° 35′ 41″, 91.49 m above sea-level; Collection no.771
43	***Crotalaria mysorensis***	*Eng.*-Rattlepod; *Local*-Unknown	N. Lat. 22° 35′ 33″ and E. Long. 95° 51′ 51″, 173 m above sea-level; Collection no.942
44	***Crotalaria orixensis***	*Eng.*-Unknown; *Local*-Unknown	N. Lat. 22° 30′ 57.8″ and E. Long. 95° 57′ 10.2″, 154 m above sea-level; Collection no.707
45	***Crotalaria quinquefolia***	*Eng.*-Rattlepod: *Local*-Unknown	N. Lat. 22° 32′ 57″ and E. Long. 95° 35′ 41″, 91.49 m above sea-level; Collection no.748
46	***Crotalaria retusa***	*Eng.*- Wedge-leaf rattle-box;*Local*-Unknown	N. Lat. 22° 34′ 00″ and E. Long. 95° 55′ 00″, 105.5 m above sea-level; Collection no.944
47	***Cullen corylifolium***	*Eng.*-Babchi; *Local*- Ne-hle	N. Lat. 22° 31′ 49″ and E. Long. 95° 41′ 20″, 112.78 m above sea-level;Collection no.904
48	***Dalbergia kurzii***	*Eng.*-Unknown; *Local*-Thitpok	N. Lat. 22° 34′ 29.5″ and E. Long. 95° 47′ 21.0″, 116 m above sea-level; Collection no.809
49	***Dalbergia lanceolaria***	*Eng.*-Takoli; *Local*-Thit-pa-gan	N. Lat. 22° 30′ 57.8″ and E. Long. 95° 57′ 10.2″, 154 m above sea-level; Collection no.656
50	***Dalbergia sisso***	*Eng.*-Indian rosewood; *Local*- Ye-padauk	N. Lat. 22° 34′ 08″ and E. Long. 95° 42′ 05″, 87.48 m above sea-level; Collection no.811

51	***Derris scandens***	*Eng.*-Jewel Vine; *Local*-Mi-gyaung-nwe	N. Lat. 22˚ 32′ 57″ and E. Long. 95˚ 35′ 41″, 91.49 m above sea-level; Collection no.906
52	***Desmodium multiflorum***	*Eng.*-desmodium; *Local*-Unknown	N. Lat. 22˚ 32′ 06″ and E. Long. 95˚ 44′ 35″, 126.2 m above sea-level; Collection no.945
53	***Desmodium triflorum***	*Eng.*- Black Clover; *Local*- Pe-pan-bin	N. Lat. 22˚ 34′ 00″ and E. Long. 95˚ 55′ 00″, 105.5 m above sea-level; Collection no.968
54	***Erythrina euodiphylla***	*Eng.*-Coral Tree; *Local*-Kathit-phyu	N. Lat. 22˚ 32′ 68″ and E. Long. 95˚ 54′ 34″, 150 m above sea-level; Collection no.813
55	***Erythrina microcarpa***	*Eng.*-Coral Tree; *Local*-Kathit-Lay	N. Lat. 22˚ 32′ 68″ and E. Long. 95˚ 54′ 34″, 150 m above sea-level; Collection no.815
56	***Erythrina variegata***	*Eng.*- Indian Coral Tree; *Local*- Kathit	N. Lat. 22˚ 34′ 29.5″ and E. Long. 95˚ 47′ 21.0″, 116 m above sea-level; Collection no.579
57	***Gliricidia sepium***	*Eng.*-Quickstick; *Local*-Pe-cherry	N. Lat. 22˚ 34′ 37″ and E. Long. 95˚ 44′ 22″, 88.39 m above sea-level; Collection no.817
58	***Indigofera linifolia***	*Eng.*-Flax-leaf Indigo; *Local*- Unknowm	N. Lat. 22˚ 34′ 37″ and E. Long. 95˚ 44′ 22″, 88.39 m above sea-level; Collection no.94
59	***Indigofera linnaei***	*Eng.*-Birdsville Indigo; *Local*- Unknown	N. Lat. 22˚ 34′ 37″ and E. Long. 95˚ 44′ 22″, 88.39 m above sea-level; Collection no.430
60	***Indigofera longiracemosa***	*Eng.*-Idian Indigo; *Local*-Thwe-hauk	N. Lat. 22˚ 29′ 56″ and E. Long. 95˚ 50′ 07″, 127 m above sea-level; Collection no. 461
61	***Indigofera tinctoria***	*Eng.*-True Indigo;*Local*-Unknown	N. Lat. 22˚ 34′ 29.5″ and E. Long. 95˚ 47′ 21.0″, 116 m above sea-level; Collection no.629
62	***Indigofera trita***	*Eng.*-Asian Indigo; *Local*- Me-nai	N. Lat. 22˚ 34′ 08″ and E. Long. 95˚ 42′ 05″, 87.48 m above sea-level; Collection no.948
63	***Melilotus alba***	*Eng.*-Sweet Clovers; *Local*- Mepan-nyo	N. Lat. 22˚ 32′ 06″ and E. Long. 95˚ 44′ 35″, 126.2 m above sea-level; Collection no.967.
64	***Millettia peguensis***	*Eng.*- rosewood; *Local*-Thin-win	N. Lat. 22˚ 32′ 68″ and E. Long. 95˚ 54′ 34″, 150 m above sea-level; Collection no.819.
65	***Sesbania sesban***	*Eng.*-Common Sesban; *Local*- Ye-tha-gyi	N. Lat. 22˚ 34′ 08″ and E. Long. 95˚ 42′ 05″, 87.48 m above sea-level; Collection no.580
66	***Sesbania javanica***	Eng.-Dhaincha: *Local*-TaungyiPadauk	N. Lat. 22˚ 34′ 37″ and E. Long. 95˚ 44′ 22″, 88.39 m above sea-level; Collection no.949
67	***Stylosanthes humilis***	*Eng.*-Townsville Stylo; *Local*- Unknown	N. Lat. 22˚ 34′ 37″ and E. Long. 95˚ 44′ 22″, 88.39 m above sea-level; Collection no.951
68	***Stylosanthes scabra***	*Eng.*-Shrubby Stylo; *Local*- Unknown	N. Lat. 22˚ 34′ 37″ and E. Long. 95˚ 44′ 22″, 88.39 m above sea-level; Collection no.952
69	***Taverniera nummularia***	*Eng.*-Indian Moneywort; *Local*- Unknown	N. Lat. 22˚ 32′ 57″ and E. Long. 95˚ 35′ 41″, 91.49 m above sea-level; Collection no.321
70	***Tephrosia villosa***	*Eng.*-Hoary Tephrosia; *Local*- Me-yaing	N. Lat. 22˚ 32′ 06″ and E. Long. 95˚ 44′ 35″, 126.2 m above sea-level; Collection no.908
71	***Teramnuslabialis***	*Eng.*-Blue Swiss; *Local*-Taw-pe-pyar	N. Lat. 22˚ 34′ 37″ and E. Long. 95˚ 44′ 22″, 88.39 m above sea-level; Collection no. 420

Discussion and Conclusion

According to Kress *et al.* (2003), the type of the forest in Dry belt (65 to 100 cm rainfall) are *Acacia* Thorn Scrub forest or *Zizyphus* Thorn Scrub forest. One of the most characteristic vegetation types is a sparse scrub in which *Acacia catechu* (L.f) Willd. occurring as low bushes is the most characteristic plant. In some area *Vachellia leucophloea* (Roxb.) Maslin largely replaces *Acacia catechu*. In the drier parts on sand *Acacia catechu* (L.f) Willd. is accompanied by *Tectona halmatoniana* Wall., *Miliusa velutina* Hoof. & Thoms, and *Jatropha gossypifolia* L. together with scattered trees of *Boscia variabilis* (Kurz) Coiiect & Hems. The types of forest and all the members of Fabaceae stated by Kress *et al*. occur in the present study.

Brummitt (1992) stated Mimosaceae as Leguminosae-Mimosoideae containing 66 Genera. Kress *et al.* (2003) had recorded 17 genera in the checklist of Myanmar. 7 genera are found in this study area. Eight species of *Acacia*, two species of *Albizzia*, *Desmanthus virgatus* (L.) Willd., *Leucaena leucocephala* (Lam.) DC., *Pithecellobium dulce* Benth., *Prosopis juliflora* (Swartz) DC. and *Samanea saman* (Jacq.) Merr. are included. Hla Aye (1977) stated the species *Vachellianilotica* (L) P. J. H. Hurter & Mabb. As *Acacia Arabica* Willd., *Leucaena leucocephala* (Lam.) DC.as *L. glauca* Benth. and *Samanea saman* (Jacq.) Merr. as *Albizia retusa* Benth. Six species are not included in his study.

Brummitt (1992) treated the family Caesalpiniaceae as Leguminosae-Caesalpinoidae. He stated that the family Caesalpiniaceae consisting of 125 genera are mostly distributed in tropics. Two species of *Bauhinia*, two species of *Caesalpinia*, two species of *Cassia, Delonixregia* (Hook.)Raf., *Parkinsonia aculeata* L., *Peltophorum pterocarpum* (DC.) Hyene, and 7 species of *Senna* are distributed in the study area. Among the 16 study species, *Caesalpinia digyna* Rotl., *Cassia fistula* L., *Cassia javanica* L., *Delonixregia* (Bojer ex Hook.) Raf., *Parkinsonia aculeata* L. and *Senna siamea* (Lam.) Irwin & Barnebyhad been studied in the record of Hla Aye (1977) and the rest species were not included in his previous work.

Brummit(1992) treated the family Fabaceae as Leguminosae-Papilionoideae consisting of 455 genera that widespread in distribution. Kress *et al.* (2003) stated 82 genera in the checklist of Myanmar.40 species belonging to 20 genera are found in the study area. *Alysicarpus vaginalis* (L.) DC., *Butea monosperma* (Lam.) Taub., *Dalbergia sisso* Roxb., *Erythrina microcarpa* Kurz & Vahl and *E. variegata* L. had been recorded in studies of Hla Aye (1977) and the rest 35 species were not stated in his studies.

According to the list of International Union for Conservation of Nature (IUCN), among the collected species, *Erythrina euodiphylla* is a vulnerable(VU) species; *Bauhinia diphylla* is nearly threatened (NT) species, *Dalbergia lanceolaria* and *D. sisso* are in the Convention on International Trade in Endangered Species (CITES) of Wild Fauna and Flora appendix II; *Alysicarpus buplerifolius*, *Crotalaria albida*, *Dalbergia kurzii*, *Indigofera linifolia*, *Indigofera trita*, *Seabania javanica* and *Tephrosia villosa* are least concerned (LC) species; while *Millettia peguensis* is a species of Data Deficient (DD)

Radford (1986) stated that plants are our fundamental sources of food and energy, of shelter and clothing, of drugs and beverages, of the oxygen we breathe; and they form the aesthetic base of our environment. The characterizing, naming, classifying, and identifying of all plants, whether actually or potentially useful to man, were the professional duties of the taxonomists or Plant Systematics. From the present study, it is hoped that some species of local plant support for the source of food and

shelter as a basic need. To understand the value of the local plants it is needed to identify, classify, and name to all the species growing in the selected area.

Lawrence (1969) stated that the information accumulated from plant collection was fundamental to the scientific knowledge of the inventory of the earth's plant resources. Kress *et al.* (2003) stated that Myanmar was exceptionally rich in plant biodiversity, but during the last half-century, very few new plant collections had been made in this area. But, the many local floral types of research had been carried out in the various selected areas since about 25 years ago and by compilation of these valuable data, the flora of Myanmar will be partially accomplished in the future. Therefore, it is hoped that the inventory of Fabaceae in Shwebo Township will partially accomplish the flora of the central dry area of Myanmar and give the valuable information of plant resources to further researchers who interested in local species of that area in various ways.

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