

# Study of Plant Diversity In Jarda Forest District Aravalli, Gujarat, India

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**Abstract-** Biodiversity Conservation is major problem of the day. We are trying to establishment of natural habitat for plant. Jarda forest is the part of Aravalli mountains, so it is unique example from floristic point of view. In present study, a total of 87 plant species belonging to 43 families have been recorded from Jarda forest in particular zone of district Aravalli, North Gujarat. During September 2019. The investigation also reveals the ecological balance is being upset due to rapid rise of human population and their increased demand for more utilization of natural resources.

**Keywords-** Jarda forest, Plant diversity, Natural habitat, Ecological balance

## I. INTRODUCTION

Diversity means floristic variety of plant forms. Rich diversity suggests a great many kinds of plant species and conversely poor diversity indicates fewer types of living species. On this diversity hinges the future, health and beauty of the living planet. Habitat of floristic diversity contains wild species and genetic variation within, it is useful in the development of agriculture, medicines and industry. The present study aims to highlight the biodiversity of herbs, shrubs and trees of Jarda forest range of Aravalli district, North Gujarat.

The Aravalli district is situated in the North West part of Gujarat between latitudes 20° 13' 15" and 24° 34' 30" North and Longitudes 72° 47' 0" and 73° 37' 30" East. Part of the western Aravallis. The Jarda forest is situated on latitude 23° 49' 68" North and Longitude 73° 51' 31" North and Longitude 73° 52' 32" East. The total forest area 722.08 ha. The great floristic diversity of Jarda forest range of Aravalli district has contributed to the expression of very rich cultural diversity, one of the major components in knowledge of natural resources as an integral part of its culture and which reveals not only in the systematic knowledge the native tribal people of this region with regard to native flora and fauna, and but also the development of large groups of cultivated plants of taxoethno-botanical value. The main aim of present study was to study the floristic composition of flora in Jarda forest range of Aravalli district, North Gujarat.

## II. MATERIALS AND METHODS

To carry out work on floral diversity in Jarda forest range Aravalli district, first of all, the study area was selected and divided into different regions for the sake of convenience and systematic study. To study the floristic diversity in different forest areas of Jarda range forest, frequent visits were made to the study area in the different seasons, so that seasonal variation could be studied.

A general survey of the vegetation was made and observed different plants such as herbs, shrubs and trees. The general associations of plants were observed in all the unprotected areas. Apart from the study of vegetation, plant species are collected and Herbarium sheets are prepared, and also to take photographs of particular species. Frequency percentage of each species was calculated by following the method given by Mishra (1968).

## III. RESULT AND DISCUSSION

The present study shows that the floral diversity in the Jarda range forest district Aravalli is now decreasing to loss and less as compared to earlier studies which was noted through Density, abundance and important value indices. Indication of loss in floristic diversity. The loss of floristic diversity is not only an ethical tragedy but also a great social, economical and cultural loss.

Sr.No.	Botanical name	Family	V.N.	Habit
1.	<i>Annona squamosa</i> L.	Annonaceae	Sitaphal	T
2.	<i>Cocculus hirsutus</i> (L.) Diels	Menispermaceae	Vevdi	Cl
3.	<i>Cocculus villosus</i> DC.	"	Vevdi	Cl
4.	<i>Capparis decidua</i> (Forsk.) Edgew.	Capparaceae	Kerado	S
5.	<i>Capparis sepiaria</i> L.	"	Kanther	S
6.	<i>Capparis spinosa</i> L.	Capparaceae	Kantalo kanther	S
7.	<i>Cleome viscosa</i> L.	"	Pilitilvan	H
8.	<i>Crateva nurvala</i> Buch.	"	Vayvarno	T
9.	<i>Maerua oblongifolia</i> (Forsk.) A.Rich	"	Hemkand	S
10.	<i>Sida cordifolia</i> L.	Malvaceae	Bala	H
11.	<i>Sida ovata</i> Forsk.	Malvaceae	Bala	H
12.	<i>Bombax ceiba</i> L.	Bombacaceae	Shimlo	T
13.	<i>Helicteres isora</i> L.	Sterculiaceae	Mardasing	H
14.	<i>Sterculia urens</i> Roxb.	Malveae	Kadayo	T
15.	<i>Triumfetta rhomboidea</i> Jacq.	Tiliaceae	Zipti	H
16.	<i>Triumfetta pentandra</i> A.	"	Zipti	H

17.	<i>Triumfetta rotundifolia</i> Lam.	"	Zipto	H
18.	<i>Tribulus terrestris</i> L.	Zygophyllaceae	Gokhru	H
19.	<i>Aegle marmelos</i> (L.) Corr.	Rutaceae	Bili	T
20.	<i>Limonia acidissima</i> L.	Rutaceae	Kotha	T
21.	<i>Ailanthus excelsa</i> Roxb.	Simaroubaceae	Moto arduo	T
22.	<i>Balanites aegyptiaca</i> (L.) Del.	Balanitaceae	Ingoriyo	S
23.	<i>Boswellia serrata</i> Roxb.	Burseraceae	Haleri	T
24.	<i>Maytenus emarginata</i> (Willd.) D.Hou.	Celastraceae	Vico	S
25.	<i>Cardiospermum halicacabum</i> L.	Sapindaceae	Kagdolio	Cl
26.	<i>Sapindus laurifolius</i> Vahl.	"	Aritha	T
27.	<i>Lannea coramandelica</i> (Houtt.) Merrill.	Anacardiaceae	Moyno	T
28.	<i>Moringa oleifera</i> L.	Moringaceae	Sargavo	T
29.	<i>Abrus precatorius</i> L.	Fabaceae	Chanothi	Cl
30.	<i>Butea monasperma</i> (Lam.) Taub.	"	Khakhro / Kesudo	T
31.	<i>Dalbergia latifolia</i> Roxb.	"	Sisam	T
32.	<i>Mucana prurita</i> HK.f.	"	Kuvech	Cl

33.	<i>Cassia auriculata</i> L.	Caesalpinaceae	Aval	S
34.	<i>Cassia fistula</i> L.	"	Garmalo	T
35.	<i>Cassia tora</i> L.	"	Kuvandio	H
36.	<i>Acacia chundra</i> (Roxb. Ex. Rottl.) Willd.	"	Khair	T
37.	<i>Acacia nilotica</i> (L.) Del.	mimosaceae	Baval	T
38.	<i>Albizia lebbeck</i> (L.) Bth.	"	Siris	T
39.	<i>Prosopis chilensis</i> (Molina) Stun.	Mimosaceae	Gando baval	T
40.	<i>Anogeissus latifolia</i> (Roxb.)	Combretaceae	Dhav	T
41.	<i>Terminalia arjuna</i> (Roxb.) W	"	Arjunsadad	T
42.	<i>Terminalia bellerica</i> (Gaertn.) Roxb.	"	Baheda	T
43.	<i>Syzygium cumini</i> (L.) Skeels.	Myrtaceae	Jambu	T
44.	<i>Woodfordia fruticosa</i> (L.) Kurtz.	Lytharaceae	Dhavdi	S
45.	<i>Alangium salvifolium</i> (L.f.) Wang.	Alangiaceae	Ankol	T
46.	<i>Echinops echinatus</i> Roxb.	Asteraceae	Utkanto	H
47.	<i>Eclipta prostrata</i> (L.) L.Mant.	"	Bhangro	H
48.	<i>Parthenium hysterophorus</i> L.	Asteraceae		H
49.	<i>Tridax procumbens</i> L.	"	Pardesi	H

			bhangro	
50.	<i>Madhuca indica</i> J.F.	Sapotaceae	Mahudo	T
51.	<i>Diospyros melanoxylon</i> Roxb.	Ebenaceae	Timbru	T
52.	<i>Nyctanthes arboristis</i> L.	Oleaceae	Parijatak	T
53.	<i>Carissa congesta</i> Wt. Icon. T.	Apocynaceae	Karamda	S
54.	<i>Holarthra antidysenterica</i> (L.) Wall.	"	Kadvo indrajav	T
55.	<i>Calotropis procera</i> (Ait.) R.Br.	Asclepiadaceae	Nano akdo	S
56.	<i>Pergularia daemia</i> (Forsk.) Chiov.	"	Chamar dudheli	Cl
57.	<i>Cardia sebestena</i> L.	Ehretiaceae	Gunda	S
58.	<i>Caldenia procumbens</i> L.	Boraginaceae	Okhrad	H
59.	<i>Heliotropium indicum</i> L.	Boraginaceae	Hathi sundho	H
60.	<i>Ipomoea eriocarpa</i> R.Br.	Convolvulaceae	Bodi fudardi	Cl
61.	<i>Ipomoea fistulosa</i> Mart.	"	Besharmi	Cl
62.	<i>Merremia dissecta</i> (Jacq.) Hall f.	Convolvulaceae	Underkani	Cl
63.	<i>Solanum surattense</i> Burm.f.	Solanaceae	Bho ringni	H
64.	<i>Withania somnifera</i> (L.) Dunal.	"	Ashvagandha	H

65.	<i>Striga angustifolia</i> (D.Don). Saldhana.	Orbanchaceae	Dholo agio	P
66.	<i>Striga gesneroides</i> (Willd.) Vatke.	"	Rato agio	P
67.	<i>Martynia annua</i> L.	Martyniaceae	Vinchhudo	H
68.	<i>Adhatoda vasica</i> (L.) Nees.	Acanthaceae	Arduso	S
69.	<i>Lapidagathis trinervis</i> Wall.	"	Harancharo	H
70.	<i>Lantana camara</i> L.	Verbenaceae	Indradhanu	S
71.	<i>Lantana salvifolia</i> Jacq. Hort.	"		S
72.	<i>Tectona grandis</i> L.	"	Sag	T
73.	<i>Vitex negundo</i> L.	Verbenaceae	Nagod	T
74.	<i>Salvia officinalis</i> L.	"		H
75.	<i>Boerhavia diffusa</i> L.	Nyctaginaceae	Satodi	H
76.	<i>Breynia retusa</i> (Dennst.) Alst.	Euphorbiaceae	Kamboi	S
77.	<i>Jatropha curcus</i> L.	"	Ratanjot	S
78.	<i>Jatropha multifida</i> L.	"		S
79.	<i>Asphodelus tenuifolius</i> Cav.	Liliaceae	Dungro	H
80.	<i>Asparagus racemosus</i> Willd.	Asparagaceae	Satavari	Cl
81.	<i>Chlorophytum bonvillianum</i>	Asparagaceae	Karli	H

82.	<i>Commelina bengalensis</i> L.	Commelinaceae	Motu sismuliu	H
83.	<i>Commelina diffusa</i> Burm.f.	"	Nanu sismuliu	H
84.	<i>Scripus lateriflorus</i> Gmel.	Cyperaceae		H
85.	<i>Cynodon dactylon</i> Pers.	Poaceae	Dhoro	H
86.	<i>Desmostachya bipinnata</i> (L.) Stapf.	"	Dabhado	H
87.	<i>Setaria tomentosa</i> (Roxb.) Kunth.	"	Kutra grass	H

During the present works, I have noted 87 plant species and 43 families have been reported in that perticular zone Jarda which I have been reported in this paper. Number of plant species lost is often most widely used measures of diversity depletion. The overall causes of diversity loss are the same as those responsible for land use and surface of land changed. The study also reveals that the ecological balance is being upset by rapid rise of human population with their increased demand for more utilization of natural resources. The existing natural forests were protecting our living environment.

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