International Journal of Pharmaceutical research and Applications
Volume 11, Issue 1, Jan - Feb 2026, pp:59-61 www.ijprajournal.com ISSN: 2456-4494

Biodiversity of plants in lonarlake forest.

[1]Dr.Vinayak Rathod
[1]LecturerinBotany,[1]Departmentof Botany.
[1]Vasantartsandsciencejr.college,Chorpangra.Buldhana.

Date of Submission: 02-01-2026 Date of acceptance: 10-01-2026

Abstract-This study has been undertaken to study biodiversity ofplant in lonar lake forest. Biodiversity that we see today is the outcome of over
3.5billion of years of evolutionary history mainlyinfluenced by natural processes and of late influence of humans. the study has been carried out for the basic concept of biodiversity such as levels and patterns of biodiversity
,expanse,importance,lossandconservationmethodsan deffortsundertaken.

Keywords-
history,importance,evolution,levels,patterns.

I. Introduction

Diversity is variety. This variety of life is called Biodiversity. Biodiversity includes a vast array of species of microorganism-viruses, algae, fungi, plants animals occuring on Earth, either in terrestrial or aquatic habitat and the ecological complexes of which they are part. In lonar forest ,the diversity is with respect to size, shape, colour, form, reproduction, mobility, mode of nutrition ,type of habitat ,duration of life cycle span.

This is due to attempt of living beings to accommodate with different enviournmental conditions(climate, edaphic, topographic, geographic,etc.)or situation,solely for their survivaland perpetuation. In doing so,livingorganism adopts themselves to overcomes different situations and thusdevelops distinct but different features and thathas actually leads to diversityin them.

The diversity in features become influence in enviounments serves as basis for diversity .

Theterm Biodiversity was actually coined by Walter and Rosen (1982)but the trmwasproposedby sociologistEdwardWilsontodescribecombined diversity at all the levels of biological organization.

II. Objectives

Protection,upliftmentandscientificmanagementofbio diversity to maintain its optimum level and to derive sustainable benefits for the present and future strategies.

III. Material and Methods

To study thebiodiversity of plant in lonar lake forest ,the main method is used the vegetation study .later on another method is used as to initiative field study.Withthesestudydifferentlevelsandpatternsofbi odiversityofplants has been studied inlonar lake forest area.

Levels of biodiversityof plantsin lonar lake forest – diversity of plants can be observed at various levels,ranging from molecular to ecosystem levels.Major interrelated levelsare genetic diversity ,species diversity (community),ecosystem diversity(ecological)

Genetic diversity- It includes variations within a population and diversity between population that are associated with adaptation to local condition .This also improve the chances of continuation of species in the changing enviournmental condition or allow the best adopted to survive.

Anothercaseofgeneticdiversityisamedicinalplants*Ra ulfia vomitoria* which secretes active components respine is found. This plant shows variation in terms of potency and concentration of active chemical, from location to location.

Plantfoundwhichshowsgeneticdiversityis-
Raulfiavomitoria

Species diversity-The number of species of plants that are present in a lonar lake forestregion ,constitute its species diversitySome area are richer inspecies than the other areas.Species diversity related with variety of species of plants(species

International Journal of Pharmaceutical research and Applications
Volume 11, Issue 1, Jan - Feb 2026, pp:59-61 www.ijprajournal.com ISSN: 2456-4494

richness)as well as number of individuals of species of plants(species evenness)observed in area under study .Terrestrial plant species are more in lonar lake forest.

Ecological diversity –It is related to the different types of ecosystems/habitats within a given geographical areaof lonar lake forests.

Patterns of Biodiversity – Thereare two patters-Latitudinal and Altitudinal gradient and species-area relationship

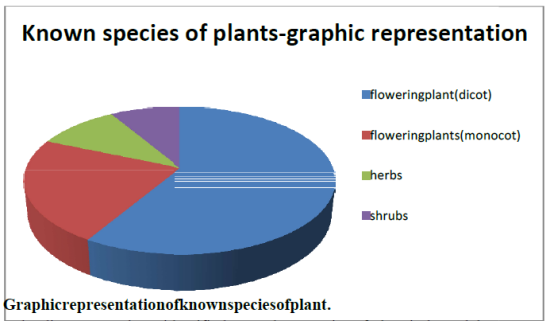
Methodof study of biodiversity ofplants-There are different methods of study of biodiversityas – transect sampling, quadret sampling,species inventories.

Another methods are - systematic collection of data species distribution abundance communitycompositionwithinagivenarea.(AgarkarS .B.1953)

Vegetation/fieldsurvey and collection of data-The field survey of lonar lake forestfor study of biodiversity of plants are carried out and followings are the species of plants are found as –

Table-1

Sr.no	Name of the plantspecies		
1	Ashvgandha	40	Bel
2	Valerian	41	Vasaka
3	Indiansquill	42	Calamus
4	Tylophora	43	Avonite
5	Gokhru	44	Indianacalypha
6	Bishkhapra	45	Sida
7	Tinospora	46	Saussura
8	Bellericmyrobalan	47	Ashoka
9	Tamarind	48	Sandalwood
10	Jmbol	49	Castoroilseed
11	Lodh		
12	Chirayata	50	Rhubarb
13	Karaya	51	Raulfia
14	Kantakari	52	Indiankino
15	Digitalis	53	Psloria
16	Dathura	54	Indianpodophylum
17	Cymbopogon	55	Ishbagul
18	Costus	56	Picrorhiza
19	Coscinium	57	Pergulatia
20	Coptis	58	Harmal
21	Colchicum	58	Turpeth
22	Cinnanum	59	Tulsi
23	Cinchona	60	Jatamansi
24	Ipecac	61	Kamlela
25	Centratherum	62	Madhuca
26	Centrela	63	Lobela
27	Cathranthus	64	Henna
28	Cassia	65	Kaladana
29	Butea	66	Hyoscymus
30	Punarnaya	67	Talamakhana
31	Indianbarberry	68	Chalmogra
32	Brahmi	69	Kurchi
33	Nim	70	Indiansarsaparilla
34	Bellodonnna	71	Liquorice
35	Wormseed	72	Indiangentian
36	Indianbirthwort	73	Wintergreen
37	Kalmegh	74	Asafoetida
38	Chhatim	75	Euphorbia



Graphicrepresentationofknownspeciesofplant.

Graphicrepresentationofknownspeciesofplant.

Inthe diagram, we have identified around 75 species of plant in lonar lake forest.But major concern is the possibility of loss of these varieties.It needs conservation.(vegetation study)

IV. Result and conclusions-

It should be made clear that, the purpose of the present studyis to prepareplant productsand conservation of biodiversity of plant for valuable products from nature. (Biswas K.1956)

It is concluded that, the immense importance of biodiversity and dire need to protect it.(B.P.C.1963)

We do not right to destroy the diversity simply because we share the Earth with them

All living beings have equal right to survive

International Journal of Pharmaceutical research and Applications
Volume 11, Issue 1, Jan - Feb 2026, pp:59-61 www.ijprajournal.com ISSN: 2456-4494

irrespective of theirknown or prospective economic use . (Bhandarichandraraj 1951-57)

Not least important reason is that so many plants of medicinal value, actal or potential ,grow there. (Jain SK1963)

For millennia, early and primitive culture have understood the healing and restorative property of wild plant, not only those growing in rain forests or the tropics.Evenwiththe modernabilitytosynthesizedrugs,wildplantsare today of crucial importance in pharmacology.(Bhatnagar,S.S.,1961)

References-

Agarkar S.B.1953.Gazetter of Bombay state ,General –A botany pt-1- Medicinal plants, Bombay.

B.P.C.1963.Thepharmaceuticalcodex,London.

Bhandarichandraraj 1951-57.Vanaushadi chandrodaya Varanasi,10 parts (in hindi) (49)5

Biswas K.1956.common medicinal plants ofDarjeeling and the Sikkim Himalayas Calcutta.

Bhatnagar,S.S.,1961.Physiological activity of Indian medicinal plants,J,.sci.&industry.res.suppl.20A;1-24

ChopraR.N.1958.ChopraindigenousdugsofIndia,NewDelhi.

Gupta R.1972.Vital Drugs and essential oil-bearing plants as furure cash crop in India ,Indian farming,p-33.

Jain SK1963.Studies of Indian Ethanobotany –plant used in medicine.region.res.la.jammu1(2);126-128

Majumdar G.P.1927Vanaspati.plants and plant lifeas in Indian treatises and traditions, Calcutta.

Santpau,H.1953 The flora of khandala on the western ghat of India Rec.Bot.surv. India(16)1-335 .

Several journals on general science, economic botany, particularly followings, *Indian Journals of Medical research and Journals of Scientific and Industrial Research.*