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Wetland phytodiversity of Rajura water reservoir of Amravati district, Maharashtra (India)

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Abstract
Aquatic habitat plays an important role in the conservation of biodiversity. Rajura is the village place of Amravati District, Maharashtra. Rajura Lake lies in Rajura and has 232.435 Square Meter area as measured by Google Earth Software. A phytodiversity survey around the wetland of lake was conducted in 2020-2021. The species like *Ipomoea carnea, Eliptica alba, Typha provincialis, Colocasia esculenta, Nymphaea stellata and Polygonum glabrum* found to be the most dominant vegetation around the margin of the aquatic body. In the present study, family Asteraceae was represented by 8 species; Amaranthaceae, Convolvulaceae and Fabaceae each represented by 2 species; Euphorbiaceae was represented by 3 species; Acanthaceae, Araceae, Arecaceae, Cleomaceae, Commelinaceae, Cyperaceae, Lamiaceae, Malvaceae, Nymphaeaceae, Oxalidaceae, Papaveraceae, Poaceae, Polygonaceae, Pontederiaceae, Phyllanthaceae, Solanaceae, Scrophulariaceae, Typhaceae and Verbenaceae represented by Single species each. Total 36 species were found belonging to 24 families.

Keywords: wetland, phytodiversity, Rajura, water reservoir, Amravati

Introduction
Wetland around the lake provides a very good environment for the growth of diversity of the plants. It is the transitional ecosystem between aquatic and terrestrial ecosystem. Wetlands carry out immense functions such as nutrient recycling, recharging of ground water, support the growth of wildlife and are mostly dominated by Macrophytes (Gopal B, 2016) [7]. The documentation of plant diversity of any region is importance to utilize and conserve the resources as well as to protect the interests of the society (NBAP, 2008) [12]. So, the efforts have been made to explore the plant diversity around the wetland of Rajura Lake, District. Amravati.

Material and Methods
Rajura village is located in Amravati district in Maharashtra, India. It is situated 8 km away from sub-district headquarter Amravati. Rajura lake is situated at coordinates 20°57'42"N, 77°48'55"E and has 232.435 Square Meter area as measured by Google Earth Software (Figure 1 and Figure 2). A phytodiversity survey around the wetland of lake was conducted periodically in 2020-2021. The plant species were identified using different flora such as Ugemuge (1986) [17], Cook (1996) [2], Naik (1998) [11], Dhore (2002) [5], Yadav and Sardesai (2002) [20]. The photography of plant species was done.

Results and Discussions
All total 36 plant species belonging to 24 families were found in the wetland (Borderline) area of the Rajura lake of Amravati district (Table 1 and Graph 1). The species like *Ipomoea carnea, Eliptica alba, Typha provincialis, Colocasia esculenta, Nymphaea stellata and Polygonum glabrum* found to be the most dominant vegetation around the margin of the aquatic body. The family Asteraceae was represented by 8 species; Amaranthaceae, Convolvulaceae and Fabaceae each represented by 2 species; Euphorbiaceae was represented by 3 species; Acanthaceae, Araceae, Arecaceae, Cleomaceae, Commelinaceae, Cyperaceae, Lamiaceae, Malvaceae, Nymphaeaceae, Oxalidaceae, Papaveraceae, Poaceae, Polygonaceae, Pontederiaceae, Phyllanthaceae, Solanaceae, Scrophulariaceae, Typhaceae and Verbenaceae represented by Single species each. The tabular information about the species is given in (Table1). Different researchers such as Chavan *et al*., 2021 [1]; Deshmukh *et al*., 2016 [3]; Dhore *et al*., 2012 [4]; Dhore and Lachure, 2014 [6]; Harney, 2014 [8]; Harney *et al*., 2013 [9]; Khinchi, *et al*., 2008 [10]; Raut *et al*., 2020 [13]; Reddy and Chaturvedy, 2016, Sitre, 2013 [15]; Tiwari, 2014 [16]; Wadekar and Tondare, 2015 [15]; Wadhave *et al*., 2010 [19] have documented the wetland diversity of different area in Maharashtra. For the conservation of native wetland biodiversity, we must know about its biodiversity potential and its importance. Native people have to educate about the available biodiversity and its sustainable use.

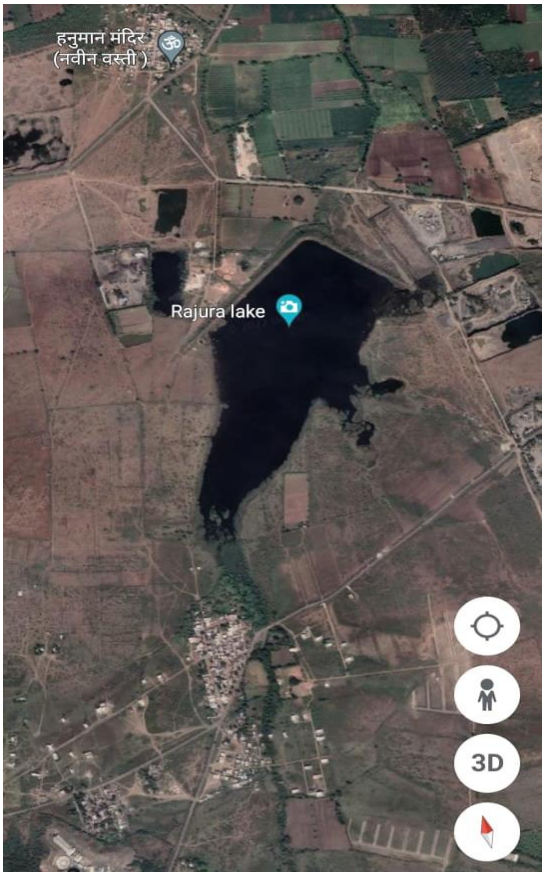


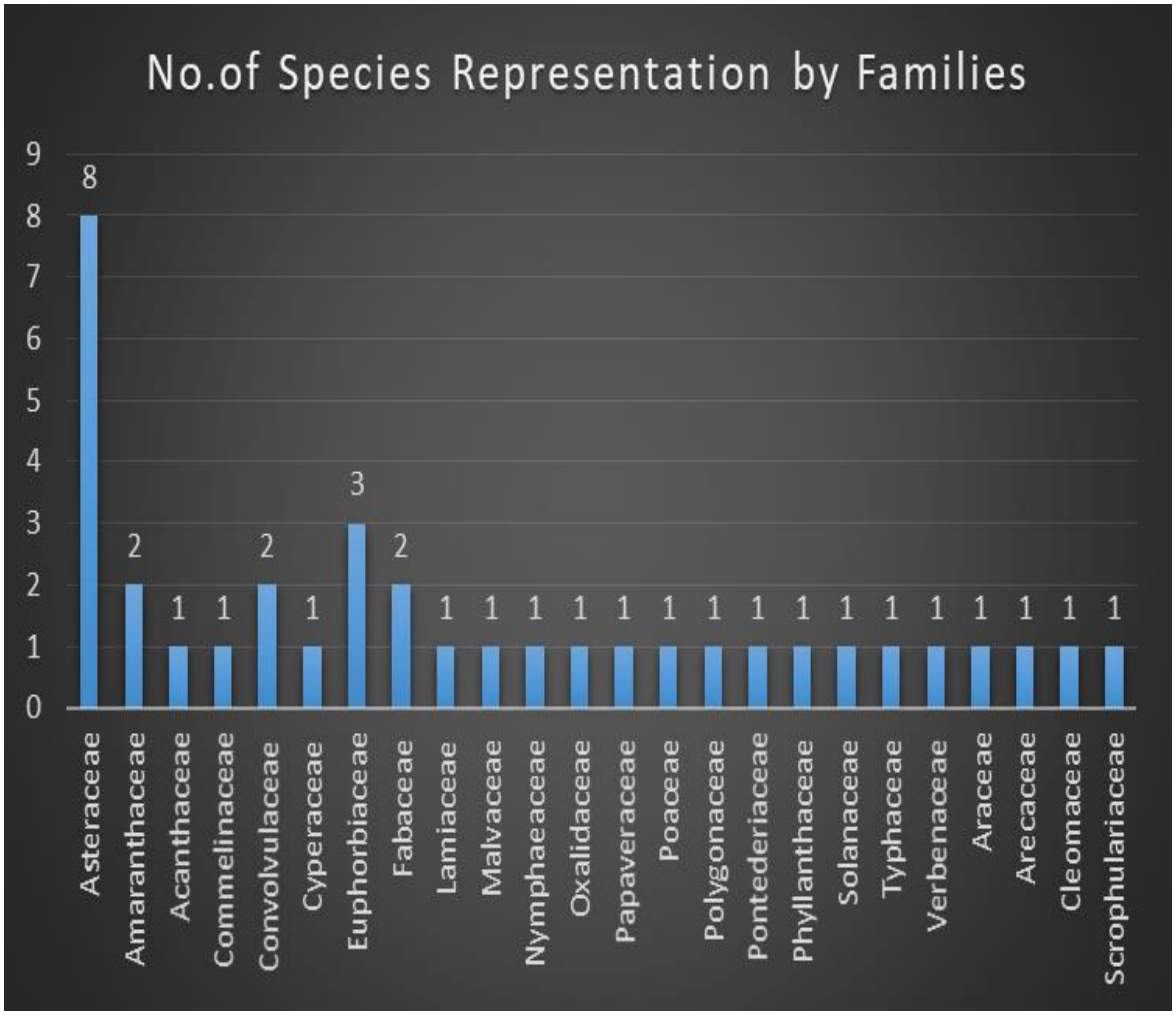
Fig 1: Geographic location of Rajura Lake (20°57'42"N, 77°48'55"E)

Fig 2: Rajura Lake (District Amravati, Maharashtra)

Table 1: List of plants (Rajura Lake)

	Botanical Name	Local Name	Family
01	*Laun procumbens*	Pathar bhaji	Asteraceae
02	*Parthenium hysterophorus*	Gajargavat	Asteraceae
03	*Tridax procumbens*	Kambarmodi	Asteraceae
04	*Eliptica alba*	Bhrungraj	Asteraceae
05	*Xanthium strumarium*	Chitaki	Asteraceae
06	*Vernonia cinerea*	Sahdevi	Asteraceae
07	*Acmella paniculata*	Akkalkadha	Asteraceae
08	*Cyathocline purpurea*	Gangotra	Asteraceae
09	*Amaranthus viridis*	Chawali	Amaranthaceae
10	*Alternanthera sessilis*	Bechkusal	Amaranthaceae

11	*Hygrophila schulli*	Talimkhana	Acanthaceae
12	*Colocasia esculenta*	Alu	Araceae
13	*Phoenix sylvestris*	Shindi	Arecaceae
14	*Cleome viscosa*	Pivali tilvan	Cleomaceae
15	*Commelina benghalensis*	Kena	Commelinaceae
16	*Ipomoea carnea*	Beshram	Convolvulaceae
17	*Merremia emarginata*	Undirkani	Convolvulaceae
18	*Cyperus rotundus*	Nagarmotha	Cyperaceae
19	*Euphorbia hirta*	Mothi dudhi	Euphorbiaceae
20	*Chrozophora rottleri*	Suryavarti	Euphorbiaceae
21	*Ricinus communis*	Erandi	Euphorbiaceae
22	*Cassia tora*	Tarota	Fabaceae
23	*Melilotus albus*	Pandhari Ranmethi	Fabaceae.
24	*Hyptis suaveolens*	Jangali Tulas	Lamiaceae
25	*Sida acuta*	Chikna	Malvaceae
26	*Nymphaea stellata*	Kamal	Nymphaeaceae
27	*Oxalis corniculata*	Amti	Oxalidaceae
28	*Argemone mexicana*	Satyanashi	Papaveraceae
29	*Cynodon dactylon*	Harali	Poaceae
30	*Polygonum glabrum*	Sheral	Polygonaceae
31	*Eichhornia crassipes*	Jalkumbhi	Pontederiaceae
32	*Phyllanthus niruri*	Bhuiaola	Phyllanthaceae
33	*Solanum xanthocarpum*	Bhui-ringani	Solanaceae
34	*Verbascum sp.*	Kutaki	Scrophulariaceae
35	*Typha provincialis*	Cattail	Typhaceae
36	*Lantana camara*	Ghaneri/Tantani	Verbenaceae



Graph 1: Graphical representation of number of species represented by Families

Photographs of Rajura Lake Plant Diversity

Argemone mexicana

Eichhornia crassipes

Eliptica alba

Polygonum glabrum

Commelina benghalensis

Amaranthus viridis

Cyathocline purpurea

Ipomoea carnea

Nymphaea stellata

Typha provincialis

Laun procumbens

Melilotus albus

Verbascum sp.

Euphorbia hirta

Parthenium hysterophorus

Acmella paniculata

Cassia tora

Colocasia esculenta

Fig 3

Conclusion

In the present study, the species like *Ipomoea carnea, Eliptica alba, Typha provincialis, Colocasia esculenta, Nymphaea stellata and Polygonum glabrum* found to be the most dominant vegetation around the margin of the Rajura aquatic body. Abundance of other diverse groups of plants indicates that the Rajura lake is productive in term of conservation.

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