

A survey of Indigenous semi-aquatic and aquatic Angiosperm biodiversity of district, Jaunpur, Uttar Pradesh

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Accepted : November, 2009

Key words : Aquatic, Semi-aquatic, Angiosperms

The present paper deals with aquatic and semi-aquatic angiosperms of Jaunpur district. The present study has been made on the survey basis. This paper include 108 species belonging to 76 genera and 35 families.

Aquatic plants play important role in maintenance of aquatic ecosystems. They provide food, shelter and variety of habitat for large number of organism. Many plants are directly used as food by human beings. In district Jaunpur major portion of precipitation comes in the form of rainfall. Lack of proper drainage results in several “Tal”, “Nullah” and ditches. There are few perennial water bodies and shallow depression. Probably dug during road construction and brick kiln scattered throughout the area. Almost all these water bodies provide an ideal habitat for the growth of aquatic and semi-aquatic vegetation.

This communication incorporates the author’s observation on the taxonomic and ecological behaviors of aquatic and semi-aquatic plants of Jaunpur. Jaunpur an eastern district of U.P. is situated between 25° 24’ – 26° 12’ north latitude and 82° 7’ – 83° 5’ east longitude. Total area of the district is 4038 km². Area is intercepted by many perennial lakes locally called ‘Tal’. Some important tal are Bithan, Gujar etc.

MATERIALS AND METHODS

The present work was based on intensive exploration and critical observation of wild semi-aquatic and aquatic plants of Jaunpur district. During trips observation on morphological characters and ecological notes were recorded plants were brought to the laboratory of the P.G. Department of Botany, T.D. P.G. College, Jaunpur, where they were identified with the help of relevant floras (Duthie, 1903-1929; Haines, 1921-25, Subramanyam, 1962; Biswas and Colder, 1937; Cook *et al.*, 1974). The results obtained are listed in Table 1.

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RESULTS AND DISCUSSION

The present study shows that 108 species belonging to 76 genera and 35 families were represented by semi-aquatic and aquatic angiosperms in Jaunpur district. The dominant family is Cyperaceae (17), Followed by Poaceae (15) and Asteraceae (10).

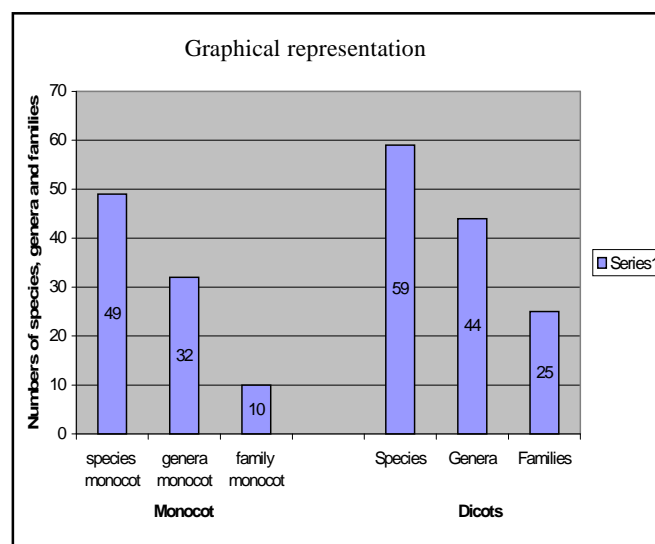


Fig. 1: Chart showing the distribution of plant species, genera and families in relation to their major plants

Table 1 : List of wild semi-aquatic and aquatic angiosperms of district Jaunpur

Sr. No.	Family	Botanical name	Flowering- Fruiting
1.	Ranunculaceae	<i>Ranunculus scleratus</i> Linn.	Nov. – Feb.
2.	Nymphaeaceae	<i>Nymphaea nouchali</i> Burm F. <i>Nymphaea stellata</i> Willd.	Jun. – Oct. Jun. – Sept.
3.	Nelumbonaceae	<i>Nelumbo nucifera</i> Gaertn.	May – Oct.
4.	Sterculiaceae	<i>Melochia corchorifolia</i> Linn.	Aug. – Oct.
5.	Fabaceae	<i>Aeschenomene aspera</i> Linn. <i>Aeschenomene indica</i> Linn.	July – Sept. July – Nov.
6.	Mimosaceae	<i>Neptunia prostrata</i> Bail.	Sept. – Feb.
7.	Lythraceae	<i>Ammania baccifera</i> Linn. <i>Ammania multiflora</i> Roxb. <i>Rotala rotundifolia</i> (Buchamm) roehne.	July – Feb. Aug. – Nov. Dec. – Mar.
8.	Rosaceae	<i>Potentilla supina</i> Linn.	Jan. - June
9.	Onagraceae	<i>Ludwigia adscendens</i> Linn. <i>Ludwigia perennis</i> Linn.	Sept. – Nov. Nov. – Dec.
10.	Trapaceae	<i>Trapa bispinosa</i> Roxb.	Sept. – Oct.
11.	Apiaceae	<i>Seseli diffusum</i> Roxb.	Mar. – June
12.	Rubiaceae	<i>Dentella repens</i> (Linn.) Forst. <i>Oldenlandia corymbosa</i> Linn. <i>Oldenlandia paniculata</i> Linn.	June – Jan. July – Sept July – Oct.
13.	Asteraceae	<i>Adenostemma lavenia</i> (Linn.) Kuntze. <i>Caesulia axillaries</i> Roxb. <i>Chrysanthellum indicum</i> DC. Prodr. <i>Eclipta prostrata</i> (Linn.) Linn. Mant. <i>Gnaphalium affine</i> D.Don, Prodr. <i>Gnaphalium indicum</i> Linn. <i>Gnaphalium pulvinatum</i> Dilile. <i>Grangea maderaspatana</i> (Linn) Poir. <i>Solvia anthemifolia</i> (Juss) R. Br. <i>Spilanthes acmella</i> Linn.	Oct. – Feb. Sept. – April Sept. – Feb. Throughout the year Dec. – April Dec. – April Nov. – April Major part of the year Feb. – May Throughout the year
14.	Campanulaceae	<i>Wahlenbergia marginata</i> (Thunb.) D.C.	May – Oct.
15.	Sphenocleaceae	<i>Sphenoclea zeylanica</i> Gaertn	Aug. – Feb.
16.	Gentianaceae	<i>Conscora decussata</i> (Roxb) S. <i>Hoppea dichotoma</i> Willd. <i>Nymphoides cristatum</i> (Roxb.) Kuntze. <i>Nymphoides indicum</i> (Linn.) Kuntze.	Aug. – Oct. Sept. – Oct April – Nvo.
17.	Hydrophyllaceae	<i>Hydrolea zeylanica</i> (Linn.) Vahl	Sept. – Oct.
18.	Convolvulaceae	<i>Ipomoea aquatica</i> Forsk. <i>Ipomoea fistulosa</i> Mart.	Sept. – Feb. Throughout the year
19.	Serophulariaceae	<i>Bacopa monnieri</i> (Linn.). <i>Pennell</i> in Proc. <i>Glossostigma spathulatum</i> Arn. <i>Limnophila indica</i> (Linn.) Druce. <i>Lindernia ciliata</i> (Colsm.) Pennell. <i>Lindernia cordifolia</i> (Colsm.) Merrill. <i>Mazus pumilus</i> (Burm.f.) Van Steenis. <i>Verbascum chinensis</i> Linn.	July – Dec. Sept – Feb. Aug. – Nov. Aug. – Jan. Aug. – Jan. Jan. – July.
20.	Lentibulariaceae	<i>Utricularia stellaris</i> Linn.	Oct. – Jan.
21.	Acanthaceae	<i>Hygrophila auriculata</i> (Schun.) Heine. <i>Lepidagathis incurva</i> Don prodr.	Sept. – Dec. Dec. – April

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22.	Verbenaceae	<i>Lippia alba</i> Mill. <i>Phyla nodiflora</i> (Linn.) Greene	Mar. – Oct. Throughout the year
23.	Amaranthaceae	<i>Alternanthera pungens</i> Kunth. <i>Alternanthera sessilis</i> (Linn.) Dc.	Jan. – Dec. July – Feb.
24.	Polygonaceae	<i>Polygonum barbatum</i> Linn. <i>Polygonum glabrum</i> Willd. <i>Polygonum hydropiper</i> Linn. <i>Polygonum limbatum</i> Meissn. <i>Polygonum plebeium</i> R.Br. <i>Rumex hastatus</i> D.Don	Sept. – Jan. Sept. – Jan. Sept. – Jan. Sept. – Jan. Throughout the year Dec. - April
25.	Ceratophyllaceae	<i>Ceratophyllum demersum</i> Linn.	Sept. - Nov.
26.	Hydrocharitaceae	<i>Hydrilla verticillata</i> (Linn. F.) Royle. <i>Nechamandra alternifolia</i> (Roxb.) Thw. <i>Ottelia alismoides</i> (Linn) Pers. <i>Vallisneria spiralis</i> Linn.	Aug. – Dec. Oct. – Feb. Sept. – Dec. Jan. – April
27.	Pontederiaceae	<i>Eichhornia crassipes</i> (Mart.) Solms. <i>Monochoria vaginalis</i> (Burm. F.) Prest.	May – Oct. Sept. – April
28.	Typhaceae	<i>Typha angustata</i> Bory & Chaub.	Oct. – April
29.	Araceae	<i>Pistia stratioides</i> Linn.	July – Oct.
30.	Lemnaceae	<i>Lemna perpusilla</i> Torrey. <i>Spirodela polyrhiza</i> (Linn.) Schleid.	Oct. – Dec. Feb. - April
31.	Aponogetonaceae	<i>Aponogeton crispus</i> Thunb. <i>Aponogeton natans</i> (Linn.) Engl.	Dec. – Mar. Aug. – Nov.
32.	Potamogetonaceae	<i>Potamogeton crispus</i> Linn. <i>Potamogeton nodosus</i> Poir. <i>Potamogeton pectinatus</i> Linn.	Nov. – Mar. Dec. – April Dec. – April
33.	Eriocaulanaceae	<i>Eriocaulon quinguangulare</i> Linn. <i>Eriocaulon cinereum</i> R.Br. Prodr.	Aug. – Nov. Aug. – Nov.
34.	Cyperaceae	<i>Bulbostylis barbata</i> (Rottb.) Clarke. <i>Carex fedia</i> Nees. <i>Cyperus brevifolius</i> (Rottb.) Hassk. <i>Cyperus corymbosus</i> Rottb. <i>Cyperus difformis</i> Linn. <i>Cyperus exaltastus</i> Retz. <i>Cyperus platystylis</i> R.Br. <i>Cyperus triceps</i> (Rottb.) Schult. <i>Eleocharis acutangula</i> (Roxb.) Schult. <i>Eleocharis dulcis</i> (Burm. F.) Henschel. <i>Eleocharis ovata</i> R.Br. <i>Fimbristylis aestivalis</i> (Retz.) Vahl. <i>Fimbristylis dichotoma</i> (Linn.) Vahl. <i>Fimbristylis littoralis</i> Gaud. <i>Scirpus articulatus</i> Linn. <i>Scirpus mucronastus</i> Linn. <i>Scirpus squarrosus</i> Linn.	Jan. – Mar. Feb. – April Jan. – Oct. Aug. – Nov. Aug. – Nov. Aug. – Nov. April – Sept. July – Nov. May – Jan. Sept. – Jan. Jan. – Mar. Aug. – Dec. May – Oct. Sept. – Nov. Aug. – Dec. Oct. – Mar. Sept. – Jan.

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35.	Poaceae	<i>Arundo donax</i> Linn.	Sept. – Feb.
		<i>Coix lachryma –jobi</i> Linn.	Sept. – Feb.
		<i>Cynodon dactylon</i> (Linn.) Pers.	Most plant of the year
		<i>Echinochloa colonum</i> (Linn.) Link.	June – Nov.
		<i>Echinochloa crusgalli</i> (Linn.) Beauv. Agrost.	July – Nov.
		<i>Eleusine indica</i> (Linn.) Gaertn.	July – Oct.
		<i>Eragrostis tenella</i> Roem & Schult.	Aug. – Jan.
		<i>Eragrostis viscosa</i> (Retz.) Trin.	July – Dec.
		<i>Hygrorhiza aristata</i> (Retz.) Nees.	Oct. – Dec.
		<i>Oplismenus burmanii</i> (Retz.) P. Beauv.	July – Dec.
		<i>Oryza rufipogon</i> Griff.	July – Nov.
		<i>Paspalum paspaloides</i> (Michx.) Scibb.	June – Sept.
		<i>Phragmites maxima</i> (forsk.) Blatt.	Dec. – Feb.
		<i>Rottboellia exaltata</i> Linn. F.	July – Nov.
<i>Vetiveria zizanioides</i> (Linn.) Nash.	Aug. – Jan.		

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