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Common weeds of Family Asteraceae (Compositae) in Raipur District of Chhattisgarh, India

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Abstract

During 2013-15, five sites of Raipur were botanically explored to assess the status of family Asteraceae in the said District. It was revealed that 16 species belonging to 16 genera are moderately to abundantly found. They occupy different ecological habitats, their occurrence at the five selected sites has been depicted in table-1.

Asteraceae or compositae with its approximately 1,620 genera and 23,600 species is the largest family of Flowering plants. The Latin name Asteraceae is derived from type genus Aster which is a Greek term meaning 'star' Copositae is a old and still valid name. The Family Asteraceae has the distinction of an extremely natural taxon with its unique floral theme and micro-morphological features including those of pollen grains and pappus.This Family was first described in 1792 by German botanist Paul Dietrich Griseke. The plants of this Family are common in open and dry waste lands and along roadsides. It is observed that most of the species of Family Asteraceae grow in winter season from mid. july to April, mostly in moist and shaded places. The greater proportion of the plants of this family is herbaceous in nature ,while only 2% are shrub. In recent years no work has been done to observe how many species of this family are surviving and how many of them have disappeared in Raipur district of Chhattisgarh. Due to impact of increasing population and pollution, in this respect the study of species composition of the Asteraceae family in Raipur is required.

Raipur district is situated in the fertile plain of Chhattisgarh Region. The plants are found as weed in cultivated field or in wasteland in this district is situated between 22^{o} 33N to 21^{o} 14N Latitude and 82^{o} 06 E to 81^{o} 38E Longitude. At present the district of Raipur comprises of Tilda, Dharsiwa, Arang, Abhanpur, and Rajim. The Raipur district is surrounded by district Bilaspur in north, district Bastar and part of Odisha state in south, district Mahasamund and part of Odisha state in east and district Durg in west.

In Present research plant of family Asteraceae in Raipur district of Chhattisgarh was conducted in the year 2013-2015. The material and method used in the study are described

under following heading:

Selection of sites of Raipur : During survey of 5 sites of Raipur including :, Dharsinwa, Tendua, Arang, Mana, Abhanpur, were selected for field survey.

Method of field survey: During the period of (2013-2015) different sectors were visited for plant collection at least twice during a period of six month. Plants were collected in different developmental stage. Habit of plants, Habitat, Flower colour, Flowering and Fruiting. Ecological surrounding and adaptation, morphological peculiarities, if present were also recorded enlisting of collected specimens were also carried out simultaneously.

It also covered different habitat in the area like waste places, road sides, fallow lands, aquatic fields. Implements like field press knife shears, polythene begs, necessary chemicals, solutions etc. as mentioned in plant collectors manual in the field diaries were always considered more important.

Literature consulted :

The collected plant specimens were indentified. The scientific name of the plant listed in the present work have been consulted with experts and literature followed by citation along with original references of the valid name. Appropriate citation with the help of standard published literature flora of Hooker[5], Haines[3] Hajra *et al.*,[4] Flora of Madhya Pradesh vol. I[11] Flora of Bilaspur vol. 1[14] and Flora of Raipur, Durg and Rajnandgaon[22]. Relevant literature[1-22] has been consulted for the preparation of this manuscript.

Table-1. Distribution of species of family Asteraceae in Raipur District of Chhattisgarh during the year 2013-2015:

S. No.	Name of the plant	Sampling sites					
		Tilda	Dhars-inwa	Mana	Abhan-pur	Rajim Road	Status
1	*Acanthospermum hispidum* DC.	+	+	+	-	+	Abundunt
2	*Ageratum conyzoides* L.	+	+	-	+	+	Abundant
3	*Blainvillea acmella* (L.) Philipson	_	+	+	+	_	Moderate
4	*Blumea eriantha* DC.	+	-	+	+	+	Abundant
5	*Caesulia axillaris* Roxb.	_	+	_	+	+	Abundant
6	*Carthamus oxycantha*	+	_	+	+	+	Abundant
7	*Conyza leucantha*(D)Ludlow	_	+		+	+	Abundant
8	*Echinops echinatus* (Roxb.Fl.)	+	+	+	_	+	Abundant
9	*Erigenon asteroids* (Roxb.Fl.)	+	_	+	-	_	Moderate
10	*Launea procumbens*(Roxb.)	+	+	-	+	_	Abundant
11	*Sphaeranthus indicus*(L.)	-	+	+	_	_	Moderate
12	*Spilanthes iabadiceasis* DC.	+	-	-	_	+	Moderate
13	*Tridax procumbens*(L.)	-	+	_	+	_	Moderate
14	*Vernonia cinera*(L.)	+	_	+	+	+	Abundant
15	*Wedelia urticifolia*(DC.)	_	+	_	-	+	Moderate
16	*Xanthium indicum*(Roxb.)	+	_	+	+	_	Moderate

Survey of 5 sites of Raipur District was done during the year 2013-2015 to determine the status of family Asteraceae. Plants of Family Asteraceae are abundant in number and commonly found as weed in cultivated field and waste land.Species of *Acmella, Ageratum, Blumea* and *Tridax* are common waste land species. *Xanthium* is found abundantly in dry ditches along the road sides. Acmella is also found along water canals and domestic drainage in moist habitat. Sphaeranthus is found growing luxirantly in harvested pady field. Echinops grows in dry rocky habitats besides near old Temples and in the vicinity of the village.In industrial area of Raipur various species of *Blumea* may be seen growing on carbon rich soil where flyashes has been disposed.Various species of family Asteraceae are of potent medicinal use and may be harvested for this purpose.

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