

Eco-taxonomic studies of Family Asteraceae (Compositae) in Raipur District of Chhattisgarh, India

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Abstract

Taxonomic investigation of the family Asteraceae (Compositae) growing throughout the Raipur was carried out. A total of about 57 species under 43 genera of the family Asteraceae were collected and identified. A brief taxonomic description of some common species is given below:

Members of Asteraceae can be easily identified by their capitulate inflorescence, inferior ovary with basal placentation and presence of pappus.

Following methodology was adopted during the present study:

1. Collection of the plants of family Asteraceae in Raipur district and in the vicinity of villages and township besides forest area in different seasons.
2. Preparation of herbarium specimen of the plants collected in standard format as per international norms after drying and poisoning was done.

Asteraceae (Compositae) is one of the most easily recognized and widespread family among flowering plants. The plants of this family are common in open area, wasteland and along roadsides. The family contains about 700 genera and 13,500 species distributed

throughout the world. In India there are about 138 genera and 1250 species.

In Chhattisgarh about 69 genera and 113 species are reported. In Raipur about 43 genera and 57 species have been explored. The greater proportion of the plants of this family is herbaceous in nature while only 2% plants are trees and shrubs. Relevant literature¹⁻²⁰ has been consulted for the preparation of this manuscript.

After a careful study of herbarium specimens deposited in BSA and perusal of literature it was found that the genus *Blumea* encompasses the maximum number of species, followed by *Vernonia*, *Pulicaria*, *Gnaphalium* and *Sonchus*.

Updated Eco-taxonomic description of plants is given in table-1.

Table-1. List of plant specimens collected by botanical survey of india,
Central circle Allahabad

S. No.	Name of Plant	District	Area explored by	Field No.
1	<i>Acanthospermum hispidum</i> DC.	Ambikapur	G. Sengupta	24149
		Bilaspur	Arora	6069
		Durg	Pant	29283
		Raipur	Verma	23621
2	<i>Ageratum conyzoides</i> L.	Ambikapur	G. Sengupta	24123
		Bilaspur	Panigrahi	13303
		Durg	-	-
		Raipur	Verma	23515
3	<i>Artemisia nilagirica</i> (Clarke) Pampan.	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
4	<i>Artemisia parviflora</i> Buch-Hump.	Ambikapur	G. Sengupta	15951
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
5	<i>Bidens biternata</i> (Lour.) Merr.	Ambikapur	G. Sengupta	20523
		Bilaspur	-	-
		Durg	Pant	29171
		Raipur	-	-
6	<i>Blainvillea acmella</i> (L.) Philipson	Ambikapur	G. Sengupta	19963
		Bilaspur	-	-
		Durg	Pant	29166
		Raipur	-	-
7	<i>Blepharispermum subsessile</i>	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	Verma	24701
8	<i>Blumea bifoliata</i> (L.) DC.	Ambikapur	-	-
		Bilaspur	Panigrahi	13059
		Durg	-	-
		Raipur	Verma	17507
9	<i>Blumea eriantha</i> DC.	Ambikapur	-	-
		Bilaspur	Panigrahi	8550
		Durg	Pant	20118
		Raipur	-	-

10	<i>Blumea fistulosa</i> (Roxb.) Kurz.	Ambikapur	G. Sengupta	18970
		Bilaspur	Panigrahi	6892
		Durg	-	-
		Raipur	Verma	23743
11	<i>Blumea hieracifolia</i> (D. Don) DC.	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
12	<i>Blumea lacera</i> (Burm.f) DC.	Ambikapur	G. Sengupta	18891
		Bilaspur	Panigrahi	8917
		Durg	-	-
		Raipur	-	-
13	<i>Blumea laciniata</i> (Roxb.) DC.	Ambikapur	-	-
		Bilaspur	Arora	3821
		Durg	-	-
		Raipur	Verma	17359
14	<i>Blumea membranacea</i> Wall.	Ambikapur	G. Sengupta	17845
		Bilaspur	Panigrahi	15207
		Durg	-	-
		Raipur	Verma	23721
15	<i>Blumea mollis</i> (D. Don) Merr.	Ambikapur	G. Sengupta	24054
		Bilaspur	Panigrahi & Arora	8873
		Durg	-	-
		Raipur	Verma	23521
16	<i>Blumea obliqua</i> (L.) Druce	Ambikapur	-	-
		Bilaspur	-	-
		Durg	Pant	20106
		Raipur	-	-
17	<i>Blumea oxyodonta</i> DC.	Ambikapur	G. Sengupta	19962
		Bilaspur	Panigrahi	8613
		Durg	-	-
		Raipur	-	-
18	<i>Blumea virens</i> DC.	Ambikapur	G. Sengupta	24068
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
19	<i>Blumeopsis flava</i> (DC.) Gagnep	Ambikapur	G. Sengupta	24022
		Bilaspur	Panigrahi	15357
		Durg	-	-
		Raipur	-	-

20	<i>Caesulia axillaris</i> Roxb.	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
21	<i>Carthamus oxycantha</i>	Ambikapur	-	-
		Bilaspur	Panigrahi	16743
		Durg	-	-
		Raipur	-	-
22	<i>Centipeda minima</i> (L.)A.Br.	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
23	<i>Centratherum reticulatum</i> Benth.	Ambikapur	G. Sengupta	24198
		Bilaspur	Panigrahi	16796
		Durg	-	-
		Raipur	-	-
24	<i>Chrysanthellum americanum</i> (L.)	Ambikapur	G. Sengupta	20551
		Bilaspur	Panigrahi	8667
		Durg	-	-
		Raipur	-	-
25	<i>Conyza canadensis</i> (L.)Cronquist	Ambikapur	Panigrahi	8997
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
26	<i>Conyza leucantha</i> (D.) Ludlow	Ambikapur	-	-
		Bilaspur	Panigrahi	15406
		Durg	-	-
		Raipur	Verma	23861
27	<i>Conyza stricta</i> Willd.	Ambikapur	G. Sengupta	24055
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
28	<i>Cosmos caudatus</i>	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
29	<i>Cosmos sulphureus</i> Cavan.	Ambikapur	-	-
		Bilaspur	Panigrahi	13396
		Durg	-	-
		Raipur	-	-

30	<i>Crassocephallum crepidiodes</i> (Benth.) S.Moore	Ambikapur	-	-
		Bilaspur	Panigrahi	15280
		Durg	-	-
		Raipur	Verma	23821
31	<i>Cyatholine purpurea</i> (Ham.ex D.Don)	Ambikapur	G. Sengupta	24014
		Bilaspur	-	-
		Durg	Pant	20278
		Raipur	Verma	23670
32	<i>Echinops echinatus</i> (Roxb.Fl.)	Ambikapur	-	-
		Bilaspur	Panigrahi	8810
		Durg	-	-
		Raipur	Verma	17620
33	<i>Eclipta alba</i> (L.)	Ambikapur	G. Sengupta	15832
		Bilaspur	Murti	19501
		Durg	Pant	29288
		Raipur	Verma	17230
34	<i>Elephantopus scaber</i> (L.)	Ambikapur	G. Sengupta	18896
		Bilaspur	-	-
		Durg	-	-
		Raipur	Verma	23649
35	<i>Emilia sonchifolia</i> (L.)	Ambikapur	-	-
		Bilaspur	Panigrahi	8711
		Durg	-	-
		Raipur	Verma	23660
36	<i>Enhydra fluctuans</i> (Lour Fl.)	Ambikapur	-	-
		Bilaspur	Panigrahi	8918
		Durg	-	-
		Raipur	-	-
37	<i>Erigenon asteroides</i> (Roxb.Fl.)	Ambikapur	-	-
		Bilaspur	Panigrahi	8927
		Durg	-	-
		Raipur	Verma	23933
38	<i>Galinsoga parviflora</i> Cav.Ic.	Ambikapur	G. Sengupta	18982
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
39	<i>Glosocardia bosvallea</i> (L.f) DC.	Ambikapur	-	-
		Bilaspur	Murti	19478
		Durg	Pant	29274
		Raipur	-	-

40	<i>Glossogyne bidens</i> (Retz.)	Ambikapur	G. Sengupta	12927
		Bilaspur	Panigrahi	3916
		Durg	Pant	20212
		Raipur	Verma	17688
41	<i>Gnaphalium luteoalbum</i> L.	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
42	<i>Gnaphalium polycaulon</i> pers.	Ambikapur	G. Sengupta	18849
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
43	<i>Goniocaulon glabrum</i> Cass.	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	Verma	17783
44	<i>Grangea maderaspatana</i> L. Poir	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
45	<i>Guizotia abyssnica</i> L.f.	Ambikapur	G. Sengupta	18853
		Bilaspur	Panigrahi	12708
		Durg	-	-
		Raipur	Verma	25786
46	<i>Lagascea mollis</i> Cav.	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	Verma	24900
47	<i>Laggera alata</i> (D.Don) C.	Ambikapur	G. Sengupta	20012
		Bilaspur	Murti	15209
		Durg	-	-
		Raipur	Verma	23875
48	<i>Launea procumbens</i> (Roxb.)	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
49	<i>Oligochaeta ramosa</i> (Roxb.)	Ambikapur	-	-
		Bilaspur	Panigrahi	15482
		Durg	-	-
		Raipur	-	-

50	<i>Parthenium hysterocarpus</i> L.	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	Verma	17794
51	<i>Pantanema indicum</i> L.	Ambikapur	G. Sengupta	24003
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
52	<i>Pulicaria angustifolia</i>	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	Verma	24830
53	<i>Pulicaria foliolosa</i> DC.	Ambikapur	-	-
		Bilaspur	Panigrahi	15489
		Durg	-	-
		Raipur	-	-
54	<i>Pulicaria wightiana</i> DC.	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
55	<i>Senecio nudicaulis</i> Buch-Ham.	Ambikapur	G. Sengupta	20024
		Bilaspur	Panigrahi	8527
		Durg	-	-
		Raipur	-	-
56	<i>Sigesbekia orientalis</i> L.	Ambikapur	G. Sengupta	24154
		Bilaspur	Murti	19181
		Durg	-	-
		Raipur	-	-
57	<i>Sonchus oleraceus</i> L.	Ambikapur	-	-
		Bilaspur	Panigrahi	16854
		Durg	-	-
		Raipur	-	-
58	<i>Sonchus wightianus</i> DC.	Ambikapur	-	-
		Bilaspur	Panigrahi	13340
		Durg	-	-
		Raipur	-	-
59	<i>Solidago</i> sp.	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-

60	<i>Sphaeranthus indicus</i> L.	Ambikapur	G. Sengupta	24196
		Bilaspur	-	-
		Durg	Pant	20101
		Raipur	Verma	23533
61	<i>Spilanthes iabadiceasis</i> DC.	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
62	<i>Tagetes erecta</i> L.	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
63	<i>Tagetes patula</i> L.	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	-	-
64	<i>Tridax procumbens</i> L.	Ambikapur	G. Sengupta	20011
		Bilaspur	-	-
		Durg	Pant	29184
		Raipur	Verma	24813
65	<i>Vernonia cinerea</i> L.	Ambikapur	-	-
		Bilaspur	Panigrahi	13090
		Durg	-	-
		Raipur	Verma	23514
66	<i>Vernonia divergens</i> Roxb.	Ambikapur	G. Sengupta	24034
		Bilaspur	Panigrahi	13299
		Durg	-	-
		Raipur	-	-
67	<i>Vernonia pyramidale</i> D.Don	Ambikapur	G. Sengupta	24208
		Bilaspur	Panigrahi	12888
		Durg	-	-
		Raipur	Verma	25160
68	<i>Wedelia urticifolia</i> DC.	Ambikapur	-	-
		Bilaspur	-	-
		Durg	-	-
		Raipur	Verma	25129
69	<i>Xanthium indicum</i> (Roxb.)	Ambikapur	G. Sengupta	18856
		Bilaspur	Arora	6055
		Durg	-	-
		Raipur	Verma	23789

In table 2, the habitat and phenology of the family Asteraceae in Raipur District of Chhattisgarh has been highlighted. The observation is based on the studies of the present worker.

Table-2. Habitat and phenology of family Asteraceae in Raipur district of Chhattisgarh during the year 2014-15

S. No.	Name of Plant	Area of collection	Habitat	Flowering and Fruting	Habit
1	<i>Acanthospermum hispidum</i> DC.	Kurra	Wasteland	July-Nov.	Annual herb
2	<i>Ageratum conyzoides</i> L.	Uparwara	Wasteland	Throughout the year.	Annual herb
3	<i>Artemisia nilagirica</i> (Clarke) Pampan.	Sankra	plantation area	Oct-Sept	Perrennial herb
4	<i>Artemisia parviflora</i> Buch-Hump.	Mandar	Rocky area	Nov- Feb	Perrenial Shrub
5	<i>Bidens biternata</i> (Lour)Merr.	Charoda	Roadside	Jan-Feb	Annual herb
6	<i>Blainvillea acmella</i> (L.) Philipson	Charoda	Wasteland	Aug-Nov	Annual herb
7	<i>Blepharispermum subsessile</i>	Siliari	Dry area	Aug	Perrenial Shrub
8	<i>Blumea bifoliata</i> (L.)DC.	Kumhari	Roadside	May	Annual herb
9	<i>Blumea eriantha</i> DC.	Siliari	Wasteland	Jan-Mar	Perennial herb
10	<i>Blumea fistulosa</i> (Roxb)Kurz.	Tapongi	degraded forest	Dec-Feb	Annual herb
11	<i>Blumea hieracifolia</i> (D.Don)DC.	Siliari	Dry stream beds	April	Annual herb
12	<i>Blumea lacera</i> (Burm.f)DC.	Raipur city	Roadside	Nov-Jan	Annual herb
13	<i>Blumea laciniata</i> (Roxb.)DC.	Sankara	Shady places	May	Annual herb
14	<i>Blumea membranacea</i> Wall.	Raipur city	Wasteland	Jan-Feb	Annual herb
15	<i>Blumea mollis</i> (D.Don)Merr.	Siliari	Pond	Jan	Annual herb
16	<i>Blumea obliqua</i> (L.)Druce	Tapongi	Dry area	Mar-April	Annual herb
17	<i>Blumea oxyodonta</i> DC.	Siliari	Dry area	Jan-Feb	Annual herb
18	<i>Blumea virens</i> DC.	Mana	Dry area	Feb-Mar	Annual herb
19	<i>Blumeopsis flava</i> (DC.)Gagnep	Siliari	Shady area	Feb-April	Annual herb
20	<i>Caesulia axillaris</i> Roxb.	Raipur city	Moist places	April-Jan	Annual herb
21	<i>Carthamus oxycantha</i>	Kurra	Cultivated field	Jan-Feb	Annual herb
22	<i>Centipeda minima</i> (L.)A.Br.	Tarpongi	Moist places	Nov-Feb	Annual herb

23	<i>Centratherum reticulatum</i> Benth.	Tapongi	Roadside	Oct-Nov	Annual herb
24	<i>Chrysanthellum americanum</i> (L.)	Dharsiwa	Grassy field	Aug-Nov	Annual herb
25	<i>Conyza canadensis</i> (L.) Cronquist	Dharsinwa	Irrigation canals	Dec-Jan	Annual herb
26	<i>Conyza leucantha</i> (D.)Ludlow	Somnath	Forest area	Jan-Feb	Perennial shrub
27	<i>Conyza stricta</i> Willd.	Siliari	Dry soil	Dec-Jan	Annual herb
28	<i>Cosmos caudatus</i>	New raipur	Wasteland	Jan	Annual herb
29	<i>Cosmos sulphureus</i> Cavan.	Dharswia	cultivated	Sept-Dec	Annual herb
30	<i>Crassocephallum crepidiodes</i> (Benth.)S.Moore	Mana	Bank of canal	Dec-Jan	Annual herb
31	<i>Cyatholine purpurea</i> (Ham.ex D.Don)	Mana	Damp soil	Jan-June	Annual herb
32	<i>Echinops echinatus</i> (Roxb.Fl.)	Dhanauli	Wasteland	Mar-May	Annual herb
33	<i>Eclipta alba</i> (L.)	Chandkuri	Moist place	Aug-may	Annual herb
34	<i>Elephantopus scaber</i> (L.)	Dharsiwa	Degraded forest	Jan-Mar	Annual herb
35	<i>Emilia sonchifolia</i> (L.)	New raipur	Irrigation cannal	Feb-Mar	Annual herb
36	<i>Enhydra fluctuans</i> (Lour Fl.)	Dharswia	Moist places	Nov-Dec	Annual herb
37	<i>Erigeron asteroides</i> (Roxb.Fl.)	Mana	Wasteland	Wild	Aug
38	<i>Galinsoga parviflora</i> Cav.Ic.	Uparwara	Wasteland	Wild	Feb-Mar
39	<i>Glosocardia bosvallea</i> (L.f)DC.	Sankra	Wasteland	Wild	Sept-Oct
40	<i>Glossogyne bidens</i> (Retz.)	Mandar	Forest area	Wild	Jan-April
41	<i>Gnaphalium luteoalbum</i> L.	Charoda	Rocky area	Wild	Mar-April
42	<i>Gnaphalium polycaulon</i> pers.	Charoda	Roadside	Wild	Mar-April
43	<i>Goniocaulon glabrum</i> Cass.	Siliari	Wasteland	Wild	Nov-Jan
44	<i>Grangea maderaspatana</i> (L.)Poir	Kumhari	Rocky area	Wild	Mar-april
45	<i>Guizotia abyssnica</i> (L.f.)	Siliari	Roadside	Wild	Dec-Feb
46	<i>Lagascea mollis</i> Cav.	Tapongi	Wasteland	Wild	Oct-Dec

47	<i>Laggera alata</i> (D.Don) C.	Siliari	Miscellaneous forest	Wild	Jan
48	<i>Launea procumbens</i> (Roxb.)	Raipur city	Dry stream beds	Wild	Dec-Feb
49	<i>Oligochaeta ramosa</i> (Roxb.)	Sankara	Roadside	Wild	Oct-May
50	<i>Parthenium hysterocarpus</i> L.	Raipur city	Shady places	Wild	Jan
51	<i>Pantanema indicum</i> (L)	Siliari	Wasteland	Wild	Oct-April
52	<i>Pulicaria angustifolia</i>	Tapongi	Pond	Wild	Aug-Dec
53	<i>Pulicaria foliolosa</i> DC.	Siliari	Dry area	Wild	April
54	<i>Pulicaria wightiana</i> (DC.)	Mana	Dry area	Wild	Nov-Dec
55	<i>Senecio nudicaulis</i> Buch-Ham.	Siliari	Dry area	Wild	Feb-Mar
56	<i>Sigesbekia orientalis</i> L.	Raipur city	Shady area	Wild	Nov
57	<i>Sonchus oleraceus</i> (L.)	Kurra	Moist places	Wild	Feb-Mar
58	<i>Sonchus wightianus</i> DC.	Tapongi	Cultivated field	Wild	Jan-April
59	<i>Solidago</i> sp.	Tapongi	Wasteland	Wild	Oct-Dec
60	<i>Sphaeranthus indicus</i> (L.)	Dharsiwa	Wasteland	Wild	Nov-Mar
61	<i>Spilanthes iabadiceasis</i> DC.	Dharsinwa	wasteland	Wild	Mar-April
62	<i>Tagetes erecta</i> L.	Siliari	Rocky area	Cultivated	Oct-Feb
63	<i>Tagetes patula</i> L.	Siliari	Roadside	Cultivated	Oct-Feb
64	<i>Tridax procumbens</i> L.	New raipur	Wasteland	Wild	Throught the year
65	<i>Vernonia cinerea</i> L.	Dharswia	Forest area	Wild	Aug-May
66	<i>Vernonia divergens</i> Roxb.	Mana	Roadside	Wild	Nov-April
67	<i>Vernonia pyramidale</i> D.Don	Mana	Wasteland	Wild	Oct-May
68	<i>Wedelia urticifolia</i> DC.	Dhanauli	Miscellaneous forest	Wild	Sept-Oct
69	<i>Xanthium indicum</i> Roxb.	Chandkuri	Dry stream beds	Wild	Oct-Dec

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