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## Angiosperm weed diversity of Puliyankulam, Kovilpatti, Thoothukudis District, Tamil Nadu, India

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### Abstract

Survey on the weed plant diversity is an important activity to assess the existing flora. A total of 139 weed species belonging to 108 genera of 36 angiosperm families have been documented. 52% of Angiosperm weed species of them are herbaceous. The present study was enumerated 23 weed species documented in the family Euphorbiaceae and Fabaceae, followed by Asteraceae with 21 weed species, Acanthaceae with 20 species and Amaranthaceae with 18 species are observed as the dominant families. In this article, family, botanical name, habit, vernacular name and various applications of the recorded plants are enumerated systematically.

**Keywords:** Angiosperm, weed species diversity, medicinal plants, Puliyankulam

### Introduction

Understanding composition of weed species within the landscape of an agro-ecosystem is an important goal of weed science. The study of weed population is helpful in determining how population changes overtime in response to selective pressures applied by our agronomic practices and changing climate conditions. Weeds are important component of biodiversity in agriculture fields (Van Elsen 2000) [16]. Moreover, they are crucial trophic resources for many guilds (Marshall *et al.* 2009 and Petit *et al.* 2011) [6, 11]. During recent years, there is reduction in weed species diversity in agriculture lands because of intensification of farming practices like use of highly effective herbicides, crop rotation and high dose of fertilization (Aebischer 1999, Robinson and William 2002, Potts *et al.* 2010) [1, 13, 12]. Present work has recorded and documented the several weed plants Puliyankulam, Kovilpatti taluk, Thoothukudi district of Tamil Nadu. It gives the list of medicinal plants used for various diseases and their management strategies. A total of 139 weed plants were observed and documented. Botanical Name, family, local name and medicinal uses were analyzed and documented.

### Materials and Methods

#### Study Area

Puliampatti village is located in Kovilpatti taluk in Tuticorin District of Tamil Nadu State, India. It is located 8 KM away from sub-district headquarter and 60 km away from the district headquarter Thoothukudi. The total geographical area of village is 1025.95 hectares. Puliampatti village has a total population of 1802 (male 913 and 889 female respectively) peoples. There are about 536 houses in Puliampatti village.

#### Methods

An extensive floristic survey was conducted during the period of October, 2020 to March, 2021. A total of 139 weed plants were collected and documented. The collected specimens were identified taxonomically with the help of available monographs, taxonomic revisions and floras (Hooker 1872, 1984; Gamble and Fischer 1915- 1936; Henry and Nair 1983 - 1989; Mohanan and Henry 1994; Santapau and Henry 1994; Kabeer and Nair 2009) [3, 2, 4, 10, 14, 5] and by using the field keys devised by Subramanyam (1962) [15].

Many weed varieties are being found throughout the entire village especially over the fields. The weed plants were collected from different plantations and roadside vegetation.

Descriptions were prepared for all the collected specimens from the materials themselves.

Common features were included under description while variants were noted for diagnosis. The species description was prepared by extracting all the common features of the species. Information on nomenclature was taken from Gamble and Fischer (1915-1936)<sup>[2]</sup>, Mathew (1981-1988).

Vernacular (Tamil) names noted during the field work were evaluated and they were either precise or vague. However, some of them showed that they had real taxonomic value at various levels (family, genus and species). The following sources of reference were also used to check Tamil names: Mayuranathan (1929) and Lushington (1915)<sup>[17]</sup>.

During the course of present study, field trips were carried out to the area. Standard methodology was used to elicit the ethnomedicinal knowledge of weed plants from the local people. The enumerated 59 medicinal plants are arranged based on their medicinal value, Botanical names followed by family, local name and part(s) used. Information on the use of these medicinal plants was gathered from a literature review and interviews with traditional healers. Mostly, local herbalists and other experienced people were taken to the field for identification of medicinal plants used in folklore. All the relevant information, in particular, the method of use of each medicinal plant species was recorded. To bring an element of accuracy, the information was cross checked with elderly people.

## Results and Discussion

The Angiospermic flora of the weeds has a total of 139 species (Table 2). They belong to 108 genera and 36 families (Table 1). 119 are Dicot and belong to 90 genera and 32 families; 20 are monocot and belong to 18 genera and 4 families depict the number of families, genera and species of Dicotyledons and Monocotyledons recorded in the area of study. Among the

dicots, 45 species are Polypetalae and family Fabaceae is the most dominant with 10 genera and 11 species. In Gamopetalae 38 genera covering 49 species are recorded and Asteraceae is the most dominant family with 15 genera and 15 species. In Monochlamydeae 25 species covering 17 genera are recorded and Amaranthaceae is the most dominant family with 8 genera and 13 species. In Monocot 20 species covers 18 genera representing 4 families. In the dicots 81 species are herbs, 24 shrubs, 13 climbers and only 1 tree species. Monocots have 20 species of herbs only documented. In the present study in monocot family Poaceae was represented with maximum number of species followed by Cyperaceae. The species *Chloris barbata*, *Cynodon dactylon*, *Oryza sativa*, *Panicum repens*, *Dactyloctenium aegyptium*, *Perotis indica* and *Aristida adscensionis* served as fodder grasses. These species are collected in the growing season, and also grazed by cattles. *Saccharum spontaneums* are grasses which reduce the pressure of flood, and prevent soil erosion.

During the field survey, ethno botanical data of 59 species of weed plants belonging to 32 families have been collected (Table 3). Among the documented useful species, the family Fabaceae is most frequently represented with a total of 6 species, followed by Amaranthaceae 5 species, Caesalpinioideae Convolvulaceae, Euphorbiaceae and Malvaceae 4 species, Aizoaceae, Asteraceae, Capparaceae, Lamiaceae, Pedaliaceae and Solanaceae 2 species and other with only 1 species. The data also indicated that 59 species were used to treat various diseases. The data on the medicinally important plants indicate that the observed species were used to treat throat disorders, fever, cough, diabetes, headache, respiratory ailments, dermatological illnesses, urogenital complaints, piles, asthma, cuts and wounds, cardiovascular complaints, skin diseases and other diseases.

**Table 1:** List of weed species in familywise identified from the study area

S. No	Family	No. of species	Percentage (%)
1.	Acanthaceae	3	2.15
2.	Aizoaceae	4	2.87
3.	Amaranthaceae	13	9.35
4.	Apiaceae	1	0.71
5.	Aristolochiaceae	1	0.71
6.	Asclepiadaceae	1	0.71
7.	Asteraceae	15	10.7
8.	Boraginaceae	1	0.71
9.	s	4	2.87
10.	Capparaceae	2	1.43
11.	Commelinaceae	1	0.71
12.	Convolvulaceae	11	7.91
13.	Cucurbitaceae	1	0.71
14.	Cyperaceae	4	2.87
15.	Elatinaceae	1	0.71
16.	Euphorbiaceae	10	7.19
17.	Fabaceae	11	7.91
18.	Lamiaceae	6	4.31
19.	Lythraceae	1	0.71
20.	Malvaceae	8	5.75
21.	Mimosaceae	2	1.43
22.	Nyctaginaceae	1	0.71
23.	Oxalidaceae	2	1.43
24.	Pappavaraceae	1	0.71
25.	Passifloraceae	1	0.71
26.	Pedaliaceae	2	1.43
27.	Poaceae	14	10.1
28.	Polygalaceae	1	0.71
29.	Portulacaceae	2	1.43
30.	Rubiaceae	2	1.43

31.	Scorpariaceae	2	1.43
32.	Solanaceae	4	2.87
33.	Tiliaceae	2	1.43
34.	Typhaceae	1	0.71
35.	Verbenaceae	2	1.43
36.	Zygophyllaceae	1	0.71

**Table 2:** Habitual diversity of weed species identified from the Study Area

S. No	Botanical Name	Family Name	Life Form
1.	<i>Abrus precatorius</i> L.	Fabaceae	Climber
2.	<i>Abutilon indicum</i> (L.) Sweet	Malvaceae	Herb
3.	<i>Acalypha indica</i> L.	Euphorbiaceae	Herb
4.	<i>Achyranthes aspera</i> L.	Amaranthaceae	Herb
5.	<i>Aerva javanica</i> (Burm.f.) Juss. Ex. Schult.	Amaranthaceae	Herb
6.	<i>Aerva lanata</i> (L.) Juss.	Amaranthaceae	Herb
7.	<i>Aeschynomene indica</i> L.	Fabaceae	Herb
8.	<i>Ageratum conyzoides</i> L.	Asteraceae	Herb
9.	<i>Allmania nodiflora</i> (L.) R.Br.	Amaranthaceae	Herb
10.	<i>Alternanthera pungens</i> Kunth	Amaranthaceae	Herb
11.	<i>Alternanthera sessilis</i> (L.) R.Br.	Amaranthaceae	Herb
12.	<i>Alysicarpus monilifer</i> (L.) DC.	Fabaceae	Herb
13.	<i>Amaranthus spinosus</i> L.	Amaranthaceae	Herb
14.	<i>Amaranthus viridis</i> L.	Amaranthaceae	Herb
15.	<i>Ammannia baccifera</i> L.	Lythraceae	Herb
16.	<i>Anisomeles indica</i> (L.)	Lamiaceae	Herb
17.	<i>Anisomeles malabarica</i> (L.) R.Br.	Lamiaceae	Shrub
18.	<i>Apulda mutica</i> L.	Poaceae	Herb
19.	<i>Argemone mexicana</i> L.	Papavaraceae	Herb
20.	<i>Aristida adscensionis</i> L.	Poaceae	Herb
21.	<i>Aristolochia bracteolata</i> Lam.	Aristolochiaceae	Herb
22.	<i>Arundo donax</i> L.	Poaceae	Herb
23.	<i>Asystasia gangetica</i> (L.) T. Anderson	Acanthaceae	Herb
24.	<i>Bergia capensis</i> L.	Elatinaceae	Herb
25.	<i>Bidens pilosa</i> L.	Asteraceae	Herb
26.	<i>Biophytum sensitivum</i> L.	Oxalidaceae	Herb
27.	<i>Blainvillea acmella</i> (L.)	Asteraceae	Herb
28.	<i>Boerhavia diffusa</i> L.	Nyctaginaceae	Herb
29.	<i>Calotropis gigantea</i> (L.) R.Br	Asclepiadaceae	Shrub
30.	<i>Celosia argentea</i> L.	Amaranthaceae	Herb
31.	<i>Celosia polygonoides</i> Retz.	Amaranthaceae	Herb
32.	37. <i>Centella asiatica</i> (L.) Urban	Apiaceae	Herb
33.	<i>Chloris barbata</i> Sw.	Poaceae	Herb
34.	<i>Chromolaena odorata</i> (L.) R.M.King & H.Rob.	Asteraceae	Shrub
35.	<i>Chrozophora rotleri</i> (Geiseler) A. Juss.	Euphorbiaceae	Herb
36.	<i>Cleome gynandra</i> L.	Capparaceae	Herb
37.	<i>Cleome viscosa</i> L.	Capparaceae	Herb
38.	<i>Clitoria ternatea</i> L.	Fabaceae	Climber
39.	<i>Coccinia grandis</i> (L.) Voigt.	Cucurbitaceae	Climber
40.	<i>Commelina benghalensis</i> L.	Commelinaceae	Herb
41.	<i>Corchorus trilocularis</i> L.	Tiliaceae	Shrub
42.	<i>Crotalaria paniculata</i> Willd.	Fabaceae	Shrub
43.	<i>Crotalaria verrucosa</i> L.	Fabaceae	Herb
44.	<i>Croton bonplandianus</i> Baillon.	Euphorbiaceae	Shrub
45.	<i>Cuscuta reflexa</i> Roxb.	Convolvulaceae	Herb
46.	<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	Herb
47.	<i>Cyperus haspan</i> L.	Cyperaceae	Herb
48.	<i>Cyperus iria</i> L.	Cyperaceae	Herb
49.	<i>Cyperus rotundus</i> L.	Cyperaceae	Herb
50.	<i>Dactyloctenium aegyptium</i> (L.) Willd.	Poaceae	Herb
51.	<i>Datura innoxia</i> Mill.	Solanaceae	Shrub
52.	<i>Datura metal</i> L.	Solanaceae	Shrub
53.	<i>Desmodium triflorum</i> (L.) DC.	Fabaceae	Herb
54.	<i>Digera muricata</i> (L.) Mart.	Amaranthaceae	Herb
55.	<i>Dipteracanthus prostratus</i> (Poir.) Nees	Acanthaceae	Herb
56.	<i>Echinochola colona</i> (L.) Link	Poaceae	Herb
57.	<i>Eclipta prostrata</i> (L.) L.	Asteraceae	Herb
58.	<i>Eragrostis minor</i> Host	Poaceae	Herb

59.	<i>Euphorbia heterophylla</i> L.	Euphorbiaceae	Herb
60.	<i>Euphorbia prostrata</i> Aiton	Euphorbiaceae	Herb
61.	<i>Euphorbia hirta</i> L.	Euphorbiaceae	Herb
62.	<i>Evolvulus alsinoides</i> (Linn.) Linn.	Convolvulaceae	Herb
63.	<i>Fimbristylis miliacea</i> (L.) Vahl	Cyperaceae	Herb
64.	<i>Glinus oppositifolius</i> (L.) A.DC.	Aizoaceae	Herb
65.	<i>Gomphrena globosa</i> L.	Amaranthaceae	Herb
66.	<i>Gomphrena celosioides</i> Mart.	Amaranthaceae	Herb
67.	<i>Heteropogon contortus</i> (L.) P.Beauv. ex Roem. & Schult.	Poaceae	Herb
68.	<i>Hibiscus lobatus</i> (Murray) Kuntz.	Malvaceae	Herb
69.	<i>Hibiscus vitifolius</i> L.	Malvaceae	Shrub
70.	<i>Hyptis suaveolens</i> (L.) Poit.	Lamiaceae	Shrub
71.	<i>Indigofera linnaei</i> Ali	Fabaceae	Herb
72.	<i>Ipomoea aquatica</i> Forssk.	Convolvulaceae	Climber
73.	<i>Ipomoea carnea</i> Jacq.	Convolvulaceae	Shrub
74.	<i>Ipomoea hederifolia</i> L.	Convolvulaceae	Climber
75.	<i>Ipomoea obscura</i> (L.) Ker Gawl.	Convolvulaceae	Climber
76.	<i>Ipomoea pes-tigridis</i> L.	Convolvulaceae	Herb
77.	<i>Ipomoea sepiaria</i> Koen. sEx Roxb.	Convolvulaceae	Climber
78.	<i>Jatropha glandulifera</i> Roxb.	Euphorbiaceae	Shrub
79.	<i>Jatropha gossypifolia</i> L.	Euphorbiaceae	Shrub
80.	<i>Lantana camara</i> L.	Verbenaceae	Shrub
81.	<i>Leucas aspera</i> (Willd.) Link.	Lamiaceae	Herb
82.	<i>Martynia annua</i> L.	Pedaliaceae	Shrub
83.	<i>Merremia gangetica</i> (L.) Cufod	Convolvulaceae	Herb
84.	<i>Merremia aegyptia</i> T. Cooke	Convolvulaceae	Climber
85.	<i>Merremia hederacea</i> (N. L. Burman) H. Hallier f.	Convolvulaceae	Climber
86.	<i>Mimosa pudica</i> L.	Mimosaceae	Shrub
87.	<i>Mollugo nudicaulis</i> Lam.	Aizoaceae	Herb
88.	<i>Mollugo pentaphylla</i> L.	Aizoaceae	Herb
89.	<i>Ocimum americanum</i> L.	Lamiaceae	Herb
90.	<i>Ocimum filamentosum</i> Forssk.	Lamiaceae	Herb
91.	<i>Oldenlandia corymbosa</i> L.	Rubiaceae	Herb
92.	<i>Oldenlandia umbellata</i> L.	Rubiaceae	Herb
93.	<i>Oryza sativa</i> L.	Poaceae	Herb
94.	<i>Oxalis corniculata</i> L.	Oxalidaceae	Herb
95.	<i>Pacciflora foetida</i> L.	Passifloraceae	Climber
96.	<i>Panicum repens</i> L.	Poaceae	Herb
97.	<i>Parthenium hysterophorus</i> L.	Asteraceae	Shrub
98.	<i>Pavonia odorata</i> Willd.	Malvaceae	Shrub
99.	<i>Pedaliium murex</i> L.	Pedaliaceae	Herb
100.	<i>Perotis indica</i> Ait.	Poaceae	Herb
101.	<i>Phyla nodiflora</i> (L.) Greene	Verbenaceae	Herb
102.	<i>Phyllanthus maderaspatensis</i> L.	Euphorbiaceae	Herb
103.	<i>Physalis minima</i> L.	Solanaceae	Herb
104.	<i>Polygala chinensis</i> L.	Polygalaceae	Herb
105.	<i>Portulaca oleracea</i> L.	Portulacaceae	Herb
106.	<i>Portulaca quadrifida</i> L.	Portulacaceae	Herb
107.	<i>Prosopis chilensis</i> (Molina) Stuntz.	Mimosaceae	Tree
108.	<i>Rhynchosia minima</i> (L.) DC.	Fabaceae	Climber
109.	<i>Rungia repens</i> (L.) Nees	Acanthaceae	Herb
110.	<i>Saccharum spontaneum</i> L.	Poaceae	Herb
111.	<i>Scoparia dulcis</i> L.	Scorpariaceae	Herb
112.	<i>Senna auriculata</i> (L.)Roxb.	Caesalpiniaceae	Shrub
113.	<i>Senna hirsuta</i> (L.) H.S.Irwin & Barenby	Caesalpiniaceae	Herb
114.	<i>Senna occidentalis</i> (L.) Link	Caesalpiniaceae	Shrub
115.	<i>Senna tora</i> (L.) Roxb.	Caesalpiniaceae	Herb
116.	<i>Sida acuta</i> Burm.f.	Malvaceae	Shrub
117.	<i>Sida cardifolia</i> L.	Malvaceae	Herb
118.	<i>Sida cordata</i> L.	Malvaceae	Climber
119.	<i>Solanum americanum</i> Mill.	Solanaceae	Herb
120.	<i>Sphaeranthus indicus</i> L.	Asteraceae	Herb
121.	<i>Sphagneticola trilobata</i> (L.) Pruski	Asteraceae	Herb
122.	<i>Spilanthes acmella</i> Murr.	Asteraceae	Herb
123.	<i>Striga angustifolia</i> (D. Don) C.J. Saldanha	Scorpariaceae	Herb
124.	<i>Synedrella nodiflora</i> (L.)	Asteraceae	Herb
125.	<i>Tephrosia purpurea</i> L.	Fabaceae	Shrub
126.	<i>Themeda triandra</i> Forskal	Poaceae	Herb

127.	<i>Tragia involucrata</i> L.	Euphorbiaceae	Climber
128.	<i>Trianthema portulacastrum</i> L.	Aizoaceae	Herb
129.	<i>Tribulus terrestris</i> L.	Zygophyllaceae	Herb
130.	<i>Trichodesma indicum</i> (L.) R. Br	Boraginaceae	Herb
131.	<i>Tridax procumbens</i> L.	Asteraceae	Herb
132.	<i>Triumfetta rhomboidea</i> Jacq.	Tiliaceae	Shrub
133.	<i>Typha angustata</i> Bory & Chaub.	Typhaceae	Herb
134.	<i>Urena lobata</i> L.	Malvaceae	Shrub
135.	<i>Vernonea cinerea</i> (L.) Less.	Asteraceae	Shrub
136.	<i>Vicoa indica</i> (L.) DC	Asteraceae	Herb
137.	<i>Wedelia chinensis</i> (Osbeck) Merr.	Asteraceae	Herb
138.	<i>Xanthium indicum</i> Koen.	Asteraceae	Shrub
139.	<i>Zornia diphylla</i> (L.) Pers.	Fabaceae	Herb

**Table 3:** List of medicinal plants (weed) from the study area.

S. No	Botanical name	Local name	Family	Parts used / uses
1.	<i>Abrus precatorius</i> L.	Kuntrimani	Fabaceae	Roots diuretic, tonic, seed paste used in affections of nervous system
2.	<i>Abutilon indicum</i> L.	Thuthi	Malvaceae	Root and leaf decoction used in cough, cold. Seeds poisonous.
3.	<i>Acalypha indica</i> L.	Kuppaimeni	Euphorbiaceae	Bark – Astringent. Pods in urinary diseases. Twigs used as tooth brush.
4.	<i>Achyranthes aspera</i> L.	Nayuruvi	Amaranthaceae	Whole plant – used in kidney stone. Root in dental care.
5.	<i>Aerva lanata</i> (L.) Juss. Ex Schult.	Poolaipoo	Amaranthaceae	Flowers useful in kidney stone. Root extract useful in head-ache
6.	<i>Aeschynomene indica</i> L.	Nettithakkai	Fabaceae	Leaf in leprosy
7.	<i>Alternanthera sessilis</i> (L.) R.Br. ex DC.	Ponnanganni keerai	Amaranthaceae	Leaves boiled and eaten. Stem and leaves used in eye troubles.
8.	<i>Amaranthus spinosus</i> L.	Mullukeerai	Amaranthaceae	Whole plant – suitable food for patients suffering from fever. Leaves used as enema and to cure piles and leprosy.
9.	<i>Ammannia baccifera</i> L.	Neermel neruppu	Lythraceae	Whole plant – extract used against ring worm.
10.	<i>Anisomeles malabarica</i> (L.) R.Br.	Perunthumbai	Lamiaceae	Plant – extract used in rheumatism.
11.	<i>Argimone mexicana</i> L.	Piramathandu	Pappavaraceae	Sap – used in eye diseases. Yellow milky sap is used to treat scabies.
12.	<i>Aristolochia bracteolata</i> Lam.	Aadutheendapalai	Aristolochiaceae	Roots – purgative, anthelmintic.
13.	<i>Bergia capensis</i> L.	Punnai	Elatinaceae	Whole plant – wounds, cuts and boils.
14.	<i>Biophytum sensitivum</i> (L.) DC.	Nilaccurunki	Oxalidaceae	Whole plant – tonic in skin complaints, decoction of leaves in diabetes.
15.	<i>Blepharis maderaspatensis</i> (L.) Heyne ex Roth.	Nethirappoondur	Acanthaceae	Leaf paste applied to forehead for curing head-ache.
16.	<i>Boerhavia diffusa</i> L.	Vattacharanai	Nyctaginaceae	Roots and leaves – diuretic and anti – inflammatory.
17.	<i>Calotropis gigantea</i> (L.) R.Br.	Erukku	Asclepiadaceae	Milky juice applied locally in thorn pricks. Flowers – in asthma.
18.	<i>Cassia absus</i> L.	Kattu kollu	Caesalpiniodeae	Leaves used in cough. Seeds in skin troubles and ring worms.
19.	<i>Cassia auriculata</i> L.	Avaram	Caesalpiniaceae	Roots used in skin diseases. Leaves and fruits anthelmintic. Seeds in ophthalmic, diabetes and chylous urine.
20.	<i>Cassia occidentalis</i> L.	Peithagarai	Caesalpiniaceae	Leaves and seeds in skin diseases.
21.	<i>Cassia tora</i> (L.) Roxb.	Oosithagarai	Caesalpiniaceae	Leaves and seeds are used for ringworm.
22.	<i>Celosia argentea</i> L.	Kopurakontra	Amaranthaceae	Seeds used in diarrhoea, mouth sore and eye – troubles.
23.	38. <i>Centella asiatica</i> (L.) Urban.	Vallarai	Apiaceae	Whole plant – diuretic and tonic. Leaf extract as tonic for improving the memory and used in cardiac diseases.
24.	<i>Cleome gynandra</i> L.	Thai vezhai	Capparaceae	Leaf extract – used in head-ache, rheumatism. Seeds anthelmintic.
25.	<i>Cleome viscosa</i> L.	Naikkadugu	Capparaceae	Leaf juice – digestive. Seeds anthelmintic.
26.	<i>Clitoria ternatea</i> L.	Sangupushpam	Fabaceae	Root, leaf and seeds used to cure head-ache & fever.
27.	<i>Coccinia grandis</i> (L.) Voigh.	Kovai	Cucurbitaceae	Root, leaf and seeds used in diabetes and skin diseases. Fruits edible.
28.	<i>Commelina benghalensis</i> L.	Kanavazhai	Commelinaceae	Whole plant – laxative.
29.	<i>Cuscuta reflexa</i> Roxb.	Akasvalli	Cuscutaceae	Whole plant – flatulence, purgative, itching, wounds, liver complaints, jaundice, expectorant.
30.	<i>Cynodon dactylon</i> (L.) Pers.	Arugampullu	Poaceae	Plant extract – used to reduce the blood sugar level – also used in urinary troubles, diuretic.
31.	<i>Cyperus rotundus</i> L.	Korai	Cyperaceae	Rhizome – diuretic, aromatic.
32.	<i>Datura innoxia</i> Mill.	Oomathai	Solanaceae	Leaves and fruits – used for asthma and also in skin diseases.
33.	<i>Desmodium troflorum</i> (L.) DC.	Sirupulladi	Fabaceae	Leaves – used in dysentery and diarrhoea
34.	<i>Eclipta prostrata</i> (L.) L. Mant.	Karisalai	Asteraceae	Whole plant used in chronic fever. antiseptic and as hair tonic and in jaundice.
35.	<i>Euphorbia hirta</i> L.	Amman pacharisi	Euphorbiaceae	Whole plant – used in cough and asthma. The latex is applied to warts.
36.	<i>Evolvulus alsinoides</i> (L.) Linn.	Vishnukirandhi	Convolvulaceae	Whole plant – as tonic and febrifuge also as vermifuge. Dried leaves used in asthma.

37.	<i>Indigofera linmaei</i> L.	Seppu nerunji	Fabaceae	Leaf – decoction given in ellipsy and insanity.
38.	<i>Ipomoea obscura</i> (L.) Ker Gawl.	Siruthali	Convolvulaceae	Leaves – used in apthous affections
39.	<i>Ipomoea pes-tigridis</i> L.	Pulisuvadi	Convolvulaceae	Leaves – used in the form of poultice to boils, sores, pimples. Roots purgative.
40.	<i>Jatropha glandulifera</i> Roxb.	Vella adhalai	Euphorbiaceae	Plant juice and leaves used in warts and tumours. Seed oil – purgative and used in rheumatism.
41.	<i>Jatropha gossypifolia</i> L.	Chevvalathalai	Euphorbiaceae	Decoction of leaves used as purgative and stomechic. Latex in ulcers.
42.	<i>Leucas aspera</i> (Willd.) Link.	Thumbai	Lamiaceae	Juice of leaves applied in chronic skin eruptions and swellings.
43.	<i>Martynia annua</i> L.	Pulinagam	Pedaliaceae	Leaves used in epilepsy. Juice in throat disorders.
44.	<i>Merremia tridentata</i> (L.) Hall. f.	Ammayar koonthal	Convolvulaceae	Plant – used in rheumatism, piles and urinary disorders. Root – decoction used in tooth – ache.
45.	<i>Mimosa pudica</i> L.	Thottarsinungi	Mimosaceae	Root – decoction used in urinary troubles. Leaf paste – applied to hydrocele.
46.	<i>Mollugo nudicaulis</i> Lam.	Parpadagam	Aizoaceae	Leaves – applied to boils to remove pus. Plant – pectoral – used in whooping cough.
47.	<i>Mollugo pentaphyla</i> L.	Seeragapoondu	Aizoaceae	Plant – stomachic, antiseptic used in poultices for sore legs.
48.	<i>Passiflora foetida</i> L.	Mosukkattan	Passifloraceae	Decoction of leaves used in asthma. Fruits emetic.
49.	<i>Pavonia odorata</i> Willd.	Peramutti	Malvaceae	Whole plant – in rheumatic fever.
50.	<i>Pedaliium murex</i> L.	Yanai nerungi	Pedaliaceae	Whole plant used in urinary disorders.
51.	<i>Phyla nodiflora</i> (L.) Greene.	Poduthalai	Verbenaceae	Herb – diuretic and febrifuge. Paste of fresh plant applied to boils, swollen, cervical glands.
52.	<i>Physalis minima</i> L.	Sudakkuthakkali	Solanaceae	Fruits and leaves used as tonic, diuretic and tonic.
53.	<i>Sida acuta</i> Burm.f.	Arvalmanai poondu	Malvaceae	Decoction of root – used for rheumatic affections.
54.	<i>Sida cardifolia</i> L.	Vellakurunthotti	Malvaceae	Whole plant – used in piles and abscess. Root – nerve tonic.
55.	<i>Tephrosia purpurea</i> (L.) Pers.	Kattukozhinji	Fabaceae	Root – used to bowel complaints.
56.	<i>Tribulus terrestris</i> L.	Nerunjil	Zygophyllaceae	Herb – diuretic.
57.	<i>Trichodesma indicum</i> (L.) R. Br.	Kasithumbai	Boraginaceae	Whole plant – emollient, diuretic. Roots – used in dysentery, pounded and applied to swellings of joints.
58.	<i>Tridax procumbens</i> L.	Kinathuppoondu	Asteraceae	Leaf – juice – used to check the bleeding of wounds.
59.	<i>Triumfetta rotundifolia</i> Lam		Tiliaceae	Root – ulcers, parturition, diarrhoea, tonic. Stem bark and leaf – diarrhoea. Flower leprosy, demulcent, astringent.

## Conclusion

Biological diversity is an asset of vital significance to human beings, as it provides food, medicine and industrial raw materials along with an immense potential for accruing many unknown benefits to future generations. As we know weeds play a key role in the ecosystem which the gardener seeks to manage. This study may be useful for agriculturists as well as taxonomists and other scientists involved in the management of weeds. Thus overall study indicates identification and reporting about weeds will be helpful for studying biological and ecological adaptations of weeds, their magnitude of harmful effects on field and Horticultural crops.

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