



Assessment and Diversity of weeds from Pathri Taluka, District Parbhani, Maharashtra India

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Manuscript details:

Received: 09.04.2026
Accepted: 18.05.2026
Published: 30.05.2026

Cite this article as:

Sonule MD (2026) Assessment and Diversity of weeds from Pathri Taluka, District Parbhani, Maharashtra India, *Int. J. of Life Sciences*, 14 (1A):273-277.
<https://doi.org/10.5281/zenodo.20685464>

Available online on <http://www.ijlsci.in>
ISSN: 2320-964X (Online)
ISSN: 2320-7817 (Print)



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ABSTRACT

The current paper focus on weed surevy conducted from 2023-2025. In the present study of diversity of weeds I have collected total 21 weeds commonly growing from Pathri taluka which shows rich diversity in abundant form. In this study total 18 genuses was observed along with 12 family of flowering plants (Angiosperm). Main aim of this study to study morphological chracteristic along with their ethnobotany research. These weeds belons from famil Fabaceae, Solanaceae, Amaranthaceae, Lamiaceae, Verbanaceae, Asteraseae, Asclepiadaceae, Commelinaceae Euphorbiaceae and Papavaraceae diversity is more as compaire to other family.

Keywords: Diversity, Weeds, Pathri & Ethnobotany.

INTRODUCTION

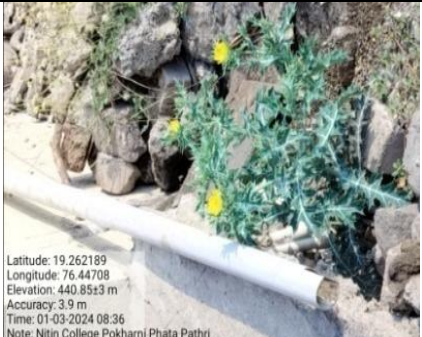
Weeds can be defined as the plants growing in the wrong places. Weeds are nothing but many unwanted plants which are very common, dominant and wide spread in the crop fields and in open area from farmers' point of view. In India diversity of unwanted plant in crop fields is very common, dominant and easily available which suppress the growth of main plant in field. Weeds also occupy almost all open spaces. They spread like wildfire and grow abundantly in the crop fields, forest and roadsides. It is observed that weeds produce a huge amount of biomass as per season (Deshmukh 2020 and Aher 2015). It was also recorded that weeds diversity in the fields would be rich source of medicines and drugs which is most useful to our body in our daily life. The local people will be able to make an extra profit by selling the medicinal weeds in their local market (Deshmukh 2020). Weeds are one of the major additional source of the medicinal importance in the human diet. These weeds are also used by Vaidyas for different formulation and maximum pharmaceutical industries to synthesis different drugs. Thus, medicinal plants can prove a significant source of income for rural life peoples in development to our countries (Aher 2015).

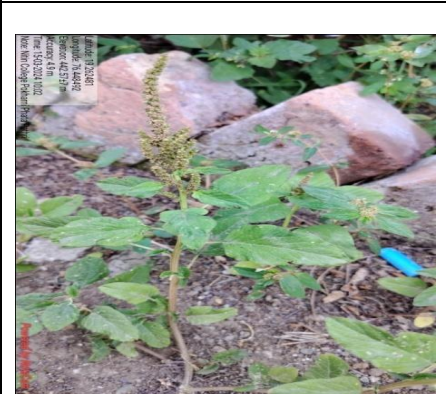
In agriculture area weeds present in crop field that compete with crop plants for light, moisture and other essential nutrients, resulting reduce quality and yield of main crops and increase the cost of production. Some weeds are specific for the particular crop fields only (Dhole *et al.*,

2013 and Bhaskar *et al.*, 2016). The main aim of the present research study is to study the diversity of weeds from Pathri taluka and find out the common and dominant, occasional and rare weeds from Pathri taluka. As a result of this study most of the weeds could be collected in different growth stages. Basically the study was done in monsoon and winter season because this time period shows the rich diversity of weeds. The identified weeds were categorized as herbs, shrubs, creepers and climbers. The collected plant samples were deposited in department of botany in the form of herbarium and photograph.

RESULTS

Table 1: Botanical, common name and family of weeds

 Latitude: 19.262189 Longitude: 76.44708 Elevation: 440.85±3 m Accuracy: 3.9 m Time: 01-03-2024 08:36 Note: Nitin College Pokharni Phata Pathri	 Latitude: 19.262572 Longitude: 76.448649 Elevation: 389.91±19 m Accuracy: 3.9 m Time: 25-01-2024 08:12 Note: Nitin College Pokharni Phata Pathri	 Latitude: 19.262091 Longitude: 76.448077 Elevation: 259.81±82 m Accuracy: 4.588 m Time: 01-08-2023 09:17 Note: Nitin College Pathri
<i>Argemone mexicana</i> L. Common Name : Mexican prickly poppy Family : Papaveraceae	<i>Calotropis procera</i> (Aiton) Dryand. ex. Common Name : Swallow-wort Family : Asclepiadaceae	<i>Calotropis gigantea</i> (L.) Aiton Common Name : Crown flower Family : Asclepiadaceae
 Latitude: 19.262839 Longitude: 76.448501 Elevation: 259.81±6.6 m Accuracy: 15.63 m Time: 08-03-2023 11:02 Note: Nitin College Pathri	 Latitude: 19.262839 Longitude: 76.448501 Elevation: 259.81±6.6 m Accuracy: 15.63 m Time: 08-03-2023 11:02 Note: Nitin College Pathri	 Latitude: 19.262839 Longitude: 76.448501 Elevation: 259.81±6.6 m Accuracy: 15.63 m Time: 08-03-2023 11:02 Note: Nitin College Pathri
<i>Solanum xanthocarpum</i> Schrd & Wendl Common Name: Yellow berried height shade Family: Solanaceae	<i>Commelina diffusa</i> L. Common Name : Climbing dayflower Family : Commelinaceae	<i>Tridax procumbens</i> L. Common Name : Coatbuttons Family : Asteraceae
 Latitude: 19.262423 Longitude: 76.448566 Elevation: 437.43±9 m Accuracy: 30.0 m Time: 04-03-2024 09:13 Note: Nitin College Pokharni Phata Pathri	 Latitude: 19.262532 Longitude: 76.446683 Elevation: 459.82±2 m Accuracy: 4.6 m Time: 01-09-2024 08:02 Note: Nitin College Pokharni Phata Pathri	 Latitude: 19.262532 Longitude: 76.446683 Elevation: 459.82±2 m Accuracy: 4.6 m Time: 01-09-2024 08:02 Note: Nitin College Pokharni Phata Pathri
<i>Lantana camara</i> L. Common Name : Wild sage Family : Verbenaceae	<i>Xanthium strumarium</i> L. (zinzurde) Common Name : Common cocklebur Family : Asteraceae	<i>Euphorbia geniculata</i> Orteg. Common Name : Wild poinsettia Family : Euphorbiaceae

		
<i>Tephrosia purpuria</i> (L.) Pers. (Unali) Common Name: Wild indigo Family: Fabaceae	<i>Clitoria ternatea</i> L. Common Name: Asian pigeonwings Family: Fabaceae	<i>Cassia tora</i> (L.) Roxb. Common Name: Sicklepod Family: Fabaceae
		
<i>Amaranthus viridis</i> Hook Common Name: Slender amaranth Family: Amaranthaceae	<i>Euphorbia hirta</i> L. Common Name: Asthma herb Family: Euphorbiaceae	<i>Malvastrum coromandelianum</i> L. Garcke Common Name: Spine seeded falsemallow Family: Malvaceae
	 <i>Hyptis suaveolens</i> L. Poit Common Name : Pignut Family : Lamiaceae	

DISCUSSION AND CONCLUSIONS

The study revealed about total 21 weeds 12 families of weeds from Pathri city Parbhani. Table 1 showing different species along with their botanical names, Common name and family. Table 2 showing the Common name and family and their ethnobotanical

uses. Medicinal importances of weeds cure the diseases like jaundice and hepatitis B, and urinary tract infections due to its antiviral, diuretic, and anti-inflammatory, respiratory issues (asthma, bronchitis), inflammation, skin ailments, fever, and digestive disorders.

Table 2: Ethnobotanical uses of weeds

Sr. No.	Botanical Name	Vernacular Name	Family	Medicinal Uses
1.	<i>Tridax procumbens</i> L.	Coatbuttons	Asteraceae	Antiseptic, blisters, cuts and wounds
2.	<i>Xanthium strumarium</i> L. (zinjurde)	Common cocklebur	Asteraceae	Cooling, improve appetites, tonic
3.	<i>Solanum xanthocarpum</i> Schrd & Wendl	Yellow berried height shade	Solanaceae	Respiratory issues, asthma, bronchitis and cough
4.	<i>Tephrosia purpuria</i> (L.) Pers. (Unali)	Wild indigo	Fabaceae	Leprosy, ulcer, asthma, tumors, disease related blood an heart
5.	<i>Lantana camara</i> L.	Wild sage	Verbenaceae	To use as an inhalant for respiration problems
6.	<i>Calotropis procera</i> (Aiton) Dryand. ex.	Swallo-wort	Asclepiadaceae	Used to treat skin diseases, rheumatism, asthma, digestive issues and pain
7.	<i>Calotropis gigantea</i> (L.) Aiton	Crown flower	Asclepiadaceae	Anti-inflammatory, analgesic and antimicrobial.
8.	<i>Argemone mexicana</i> L.	Mexican prickly poppy	Papavaraceae	Boils, ulcer, cough, dropsy leprosy, inflammation, skin diseases, jaundice
9.	<i>Euphorbia geniculata</i> Orteg.	Wild poinsettia	Euphorbiaceae	nti-inflammatory, purgative, and treatment for respiratory issues like asthma, bronchitis, and constipatio
10.	<i>Datura metel</i> L.	Thorn apple	Solanaceae	Leaves smoked to cure asthma and whooping cough
11.	<i>Hyptis suaveolens</i> (L.) Poit (rantulse blue flower)	Pignut	Lamiaceae	Antimicrobial, anti- inflammatory & in antispasmodic propertise
12.	<i>Euphorbia hirta</i> L.	Asthma herb	Euphorbiaceae	Cough asthma, colic, dysentery, diseases of the genitourinary tract
13.	<i>Clitoria ternatea</i> L.	Asian pigeonwings	Fabaceae	Used to treat anxiety, depression, memory loss, antidiabetic and anti - microbial agent
14.	<i>Achyranthes aspera</i> L.	Devil's horsewhip	Amaranthaceae	Asthatic, snakebite, abdominal pain
15.	<i>Cassia tora</i> (L.) Roxb.	Sicklepod	Fabaceae	Itch, ringworm
16.	<i>Oxalis corniculata</i> L.	Creeping wood sorrel	Oxalidaceae	Antidote for poison such as on snake bite
17.	<i>Amaranthus viridis</i> Hook	Slender amaranth	Amaranthaceae	Vermifuge centipede bite, digestive, dysentery and inflammation
18.	<i>Commelina diffusa</i> L.	Ckimbing dayflower	Commelinaceae	anti-inflammatory, diuretic, and wound-healing properties, often utilized to treat skin infections, urinary tract issues, and fever
19.	<u><i>Leonotis nepetifolia</i></u>	Loins ear	Lamiaceae	treat respiratory issues (asthma, bronchitis), inflammation, skin ailments, fever, and digestive disorders like diarrhea.
20.	<i>Malvastrum coromandelianum</i>	Spine seeded falsemallow	Malvaceae	anti-inflammatory, analgesic, antipyretic, and anti-diabetic agent
21.	<i>Phyllanthus niruri</i> ,	stonebreaker or <i>bhumi amla</i> ,	Euphorbiaceae	treating kidney stones, liver diseases (like jaundice and hepatitis B), and urinary tract infections due to its antiviral, diuretic, and anti-inflammatory properties.

Conflict of interest

The authors declare no competing interests.

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Data Availability Statement: Not applicable.

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