

TRADITIONAL MEDICINAL USES OF PLANTS EUPHORBIACEAE FAMILY

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Abstract

The current study is concerned with the exploration of plants in the Euphorbiaceae family utilizing transect methodologies. Further, spotted plants were identified using a variety of publications, including flora, monographs, identification keys, and specialists. Traditional therapeutic uses of the selected plants were investigated. This study demonstrates the possible use of Euphorbiaceae plants. Every plant has its unique potential for use in medicine. Euphorbiaceae sensu lato is a prospective family, implying that the Euphorbiaceae family requires further investigation for both therapeutic and economic usefulness to human welfare.

INTRODUCTION

Since ancient times, India has played an important role in ayurveda treatment, which involves the use of local flora for their medicinal characteristics. Our rishi Muni is continuously looking for valuable medicinal plants in the nearby region. Along with this practice, the family Euphorbiaceae is being investigated for therapeutic properties. Euphorbiaceae includes plants, shrubs, and trees with simple partite leaves, resin or latex, and the Cyathium form of inflorescence, in which the involucre encloses a single female flower surrounded by several male flowers; the involucre may or may not have a petaloid limb with a gland. Aside from that, the unisexual flower is a key feature of this family. (Simpson, 2006).

Members of this family can be found all over the world, primarily in tropical and subtropical climates. Except for a few species such as *Mallotus philippensis*, *Euphorbia neriifolia*, *Euphorbia caducifolia* and others, this family's species are primarily found in lowlands or plains. Euphorbiaceae is a worldwide family with 685 genera and 17892 species (<https://wfo.plantlist.org/taxon/wfo-7000000224-2023-12?page=1>).

The current study was undertaken to explore Euphorbiaceae family plants from Gujarat and to explore their possible significance in traditional medicinal uses for human wellbeing. This study might reveal the current state of Euphorbiaceae for its involvement in numerous fields like pharmacology, ethnobotany, etc.

MATERIAL AND METHODS

Random spotting and transect methods were used to investigate the plants belonging to the Euphorbiaceae family (Eberhardt, 1978). The identification of the plants that were spotted was determined by specialists from Gujarat University as well as floras (Cooke, 1908; Saxton and Sedgwick, 1918; Shah, 1978; Balakrishnan *et al*, 2012). The potential traditional medical applications and distribution of other selected plants were evaluated.

RESULT AND DISCUSSION

The current study investigates 27 species of the Euphorbiaceae family from Gujarat (Table 1). Graph 1 depicts 51 different ailments that were healed by Euphorbiaceae plants, whereas Graph 2 depicts all plant sections that have the ability to play a role in traditional medicinal characteristics. Euphorbiaceae plants have a higher potential for treating skin and gastrointestinal problems; however, they may also treat headaches, scabies, wounds, antibacterial, antidiabetic, burns, dysentery, jaundice, fish poison, night blindness, wart removal, ringworm, and sprains.

Actually, latex is a toxin of plants in the Euphorbiaceae family, but it has a high potential in traditional remedies, followed by whole plants and roots that were employed by tribal people for their medicinal properties (Graph 2). Aside from these, various plant parts, including as stems, leaves, fruits, and seeds, were employed for medical

purposes. Diseases were treated using a variety of preparations, including decoction, simple application to illness, infusion, leaf juice, paste, oil, and root juice of plant parts (Graph 3).

CONCLUSION

A study of plants in the Euphorbiaceae family and their traditional medicinal usage suggests that the Euphorbiaceae family has potential for traditional medicinal use. These could potentially be beneficial in the field of pharmacology. This family's latex suggests a great promise in sectors such as pharmacology and ethnobotany. Every species in this family may offer both medical and economic characteristics. This family of plants can be found anywhere and can thrive in tropical and subtropical climates. As a result, we need to look at more plants in this family to see how they can benefit humans.

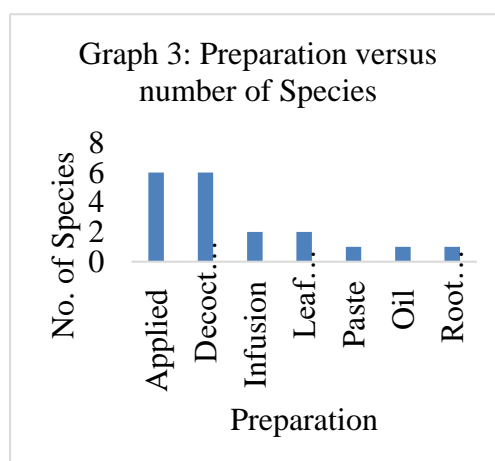
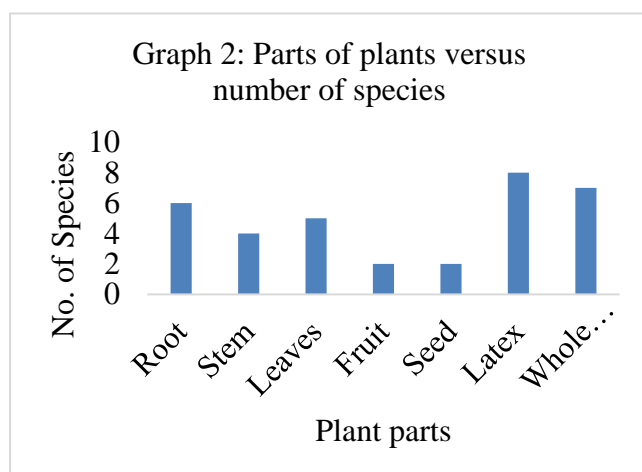
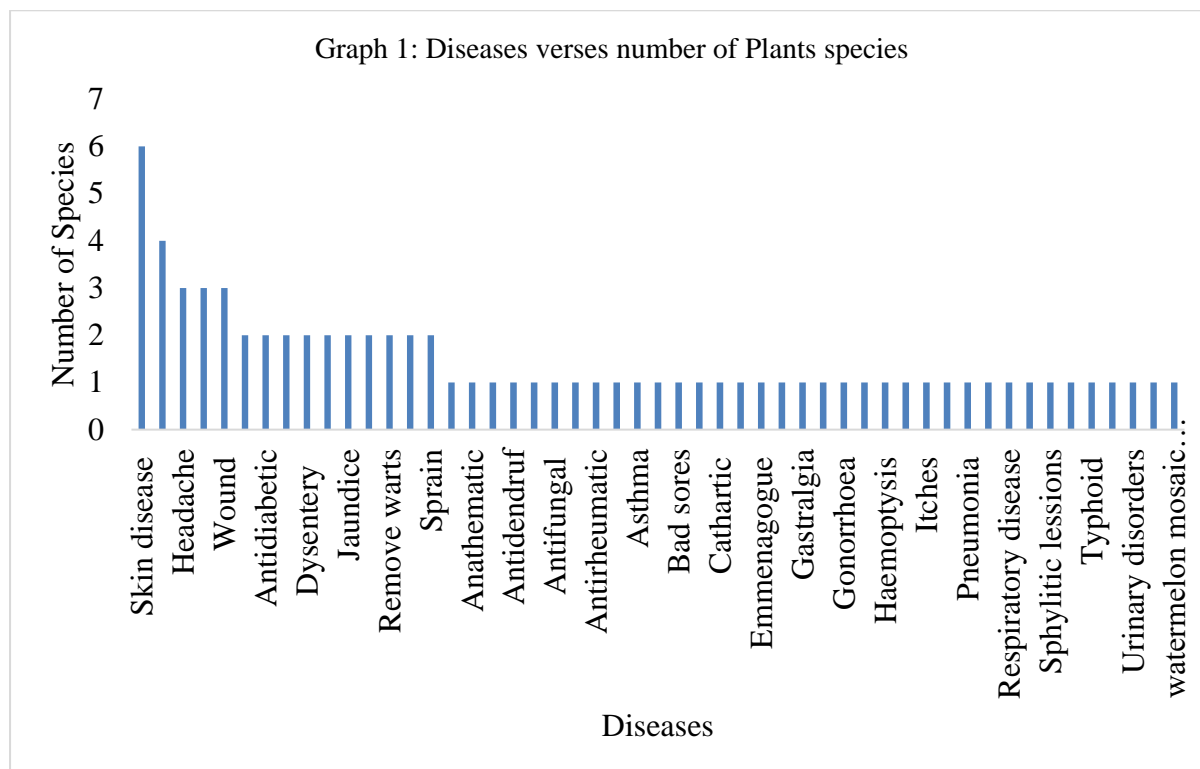


Table 1:

Sr. no.	Botanical name	Local Name	plants parts use	preparation	uses	References
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1	<i>Acalypha hispida</i> Burm.f.		Whole Plant	decoc tion	cough, haemoptysis, diarrhoea, skin disease, ringworm, ulcer, wound	Adsul <i>et al.</i> , 2013
2	<i>Acalypha indica</i> L.	Dadro , Vinchi kanto	Leaf	leaf juice with garlic, powder,	Antidiabetic, anthemics, bad sores	Kumar & Chaturvedi, 2010; Adsul <i>et al.</i> , 2013
3	<i>Acalypha wilkesiana</i> Müll.Arg.	Acalypha	leaves	decoc tion	antifungal, hypertension, gastrointestinal	Adsul <i>et al.</i> , 2013
4	<i>Baliospermum solanifolium</i> (Burm.) Suresh		latex, root,	applied, decoc tion	skin disease, constipation	Adsul <i>et al.</i> , 2013
5	<i>Chrozophora rotleri</i> (Geiseler) A.Juss. ex Spreng.	Alchhiyo, Kalo-ochrad	Seed		cathartic	Adsul <i>et al.</i> , 2013
6	<i>Cicca acida</i> (L.) Merr.		Fruit		Antidandruff, vomiting, cure night blindness	Kumar & Chaturvedi, 2010; Adsul <i>et al.</i> , 2013
7	<i>Codiaeum variegatum</i> (L.) Rumph. ex A.Juss.	Croton	leaves	decoc tion	Sphylitic lesions, antibacterial, diarrhoea	Adsul <i>et al.</i> , 2013
8	<i>Croton bonplandianus</i> Baill.	Gandha tulasi	Whole Plant		control Scabies, Asthma, bronchitis	Kumar & Chaturvedi, 2010; Adsul <i>et al.</i> , 2013
9	<i>Dalechampia scandens</i> var. <i>Cordofana</i> (Hochst. ex A. Rich) Muell. Arg.		Stem & leaves		Antioxidant	Srivastava <i>et al.</i> , 2022
10	<i>Euphorbia geniculata</i>		Leaf		diarrhoea, Dysentery	Kumar & Chaturvedi, 2010
11	<i>Euphorbia cyathophora</i> Murray		Whole Plant		Galactagogue	Adsul <i>et al.</i> , 2013
12	<i>Euphorbia hirta</i> L.	Dudeli	Whole Plant	Leaf juice, Decoc tion, infusion	Urinary disorders, itches, gonorrhoea, Remove warts, Cure scabies (Skin diseases), burns, antiseptic, antidysentery, diarrhoea, respiratory disease, typhoid and pneumonia	Kumar & Chaturvedi, 2010; Adsul <i>et al.</i> , 2013; Rani, 2019
13	<i>Euphorbia milii</i> Des Moul.		latex	Applied	Sprain	Adsul <i>et al.</i> , 2013
14	<i>Euphorbia pulcherrima</i> Willd. ex Klotzsch	Lal patti	Latex		Antirheumatic pain	Kumar & Chaturvedi, 2010
15	<i>Euphorbia tirucalli</i> L.		Latex, Root and Stem	Applied	fish poison, cure dermal issues, remove warts, Gastralgia	Kumar & Chaturvedi, 2010; Adsul <i>et al.</i> , 2013
16	<i>Jatropha curcas</i> L.	Jamalgota, Magali	latex, stem	Applied	watermelon mosaic virus, boils, pimples, fish poisoning	Adsul <i>et al.</i> , 2013

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17	<i>Jatropha gossypifolia</i> L.	Torspodla	Stem, Seeds	Applied, Decoc tion	rheumatism, abdominal inflammation, emmenagogue, skin disease, gum disease	Adsul <i>et al.</i> , 2013
18	<i>Mallotus philipensis</i> (Lam.) Müll.Arg.		fruits		Ringworms, Tapeworms, and Scabies	Adsul <i>et al.</i> , 2013
19	<i>Euphorbia tithymaloides</i> L.	Vilayati khars hani,	Latex, Root and Stem		skin care, cure headache, urinary problem	Kumar & Chaturvedi, 2010
20	<i>Phyllanthus emblica</i> L.	Amla	Whole Plant		antidandruff, antibacterial, anti-inflammatory, night blindness, vomiting.	Kumar & Chaturvedi, 2010
21	<i>Phyllanthus maderaspatensis</i> L.	Bakra do	Whole Plant	Infusion	jaundice, antidiabetic, wounds, burns, Headache	Kumar & Chaturvedi, 2010; Adsul <i>et al.</i> , (2013)
22	<i>Phyllanthus niruri</i> L.	Bhoy ambali	Root	Paste	regulate menstruation	Rani, 2019
23	<i>Phyllanthus reticulatus</i> Poir.	Daluwan, Datwan	Whole Plant		Antidote for snake bite & antimicrobial, Anathematic, Astringent, Stimulant Cure, diarrhoea & diuretic	Kumar & Chaturvedi, 2010
24	<i>Phyllanthus urinaria</i> L.	Karos adabonya mali	latex, Roots		Jaundice	Adsul <i>et al.</i> , 2013
25	<i>Putranjiva roxburghii</i> Wall.	Putranjiva			Boost fertility, viral fever	Kumar & Chaturvedi, 2010
26	<i>Ricinus communis</i> L.	Aranda	Seed, leaf, Root	oil, warm leaf, Root Juice	eczema and dermatosis, swelling, sprain, fracture, headache, injury	Rani, 2019
27	<i>Synadenium grantii</i> Hook. f.		latex	applied	wound healing	Adsul <i>et al.</i> , 2013

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