Volume 11, Issue 4, April – 2026 International Journal of Innovative Science and Research Technology
ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/26apr1465

Biodiversity of Plants Used in Arthritis at Niwari District (M.P)

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Publication Date: 2026/04/24

Abstract: Arthritis is a chronic disorder primarily affects the Joints, leading to pain Swelling stiffness and reduced mobility. The causes of arthritis include genetic predisposition autoimmune responses infection and life style factors. Research is continuously focus on understanding the pathophysiology of arthritisand developing effective the rapies to reduce its impact the term biodiversity was first use in its long version biological diversity and most commonly used to describe about member of species. Herbs and plants can be use in different forms to reduce the joint pain and inflammation. Many medicinal plants have showing Anti-arthritis properties. Therefore, plant based materials and their products, which offer important therapeutic benefits are used in the treatment of arthritis. Arthritis is primarily caused by wear and tear on the joints (osteoarthritis) an autoimmune reaction (rheumatoid arthritis) the build up of uric acid crystals (gout) or infection. It can also occur when the cartilage between joints is damaged by age, heredity, obesity, previous injury or lifestyle changes. This review focus on medicinal plant with anti-arthritis property or activity.

Keywords: *Biodiversity, Arthritis, Traditional Medicine, Ethno-Botany, Niwari District.*

How to Cite: Raza Kadri; Dr. Anuja Dubey (2026) Biodiversity of Plants Used in Arthritis at Niwari District (M.P). *International Journal of Innovative Science and Research Technology,* 11(4), 1698-1702. https://doi.org/10.38124/ijisrt/26apr1465

I. INTRODUCTION

Traditional uses of medicinal plants have been continuing since Vedic period and still a large population is dependent on these plants, but ho authentic record is available for the treatment of cattle by plants. In the present paper we have included very common plant parts and their products with extract procedure of decoction preparation and extraction etc. mode of application and doses which are used to cure and prevent very Common diseases. The term Ethno-botany was first given by Harsh Berger in 1895 without an specific definition. Ethno-botany is an anthropocentric approach to botany and essentially Concerned with gathering information on plants and their uses (Henry, 1996). However, according to Kirtikar & Basu (1933) Credit goes to the ancient Hindus (Indian) for cultivating 'Ethno-botany', since. Vedic period (500-5000 B.c) our ancient sages used the plants for curative purpose and thus Ayurveda the Science of life was evolved (Joshi, 1996). Rig-Veda, Atharveda, Sushrut samhita Rig-Veda etc are best examples for the Same treatments.

Biodiversity had always been corner stone to the mankind that dates back to prehistoric times. Communities utilized various parts of the plants for the treatments of various ailments.The diseases can affect people of all ages but it is more common in older adults and woman. Risk factory include age, family history, obesity Joint injuries, and lifestyle habits. Arthritis can significantly reduce the quality of life limiting mobility and causing chronic pain. Arthritis is a common term used to describe swelling or disease in the joints, where to or more bones meet. it affects millions of people worldwide and causes pain, stiffness, and swelling in various joints, such as the knees, hips, hands, and spine.

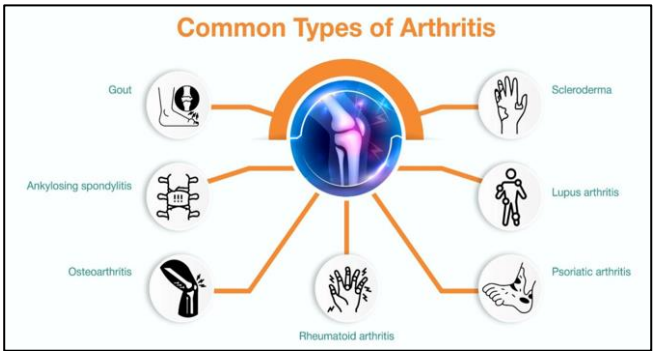

Fig 1 Showing Arthritis and Joint Pain in Human Beings.

Harsh Berger etal (1985) The utility and scope of medicinal plant research in the health care program locating by support species or emergency in food etc. *R.K Khare etal* (2000) more than one plants were reported to be common only used in medicine in Jatashankar forest Chhatarpur (M.P).The important studies on the tribal's of Madhya

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Pradesh include those by *jain et al*(1963, 1963b) (1965), (1978) *Jain & Tara & Dar et al*(1963) *Sahu et al*(1982),*Bhalla etal* (1982), *khan et al* (2000) etc. People with these genes will not automatically develop arthritis. There is usually a trigger such as an infection on environmental factor it is autoimmune diseases which means the body immune system mistakenly attack on health issues. The main aim of this research paper medicine. is to introduce several wild from medicinal plants to villagers and rural peoples and rural herbalist for care the many common diseases of Niwari district (M.P).

➢ *Aims and Objective*

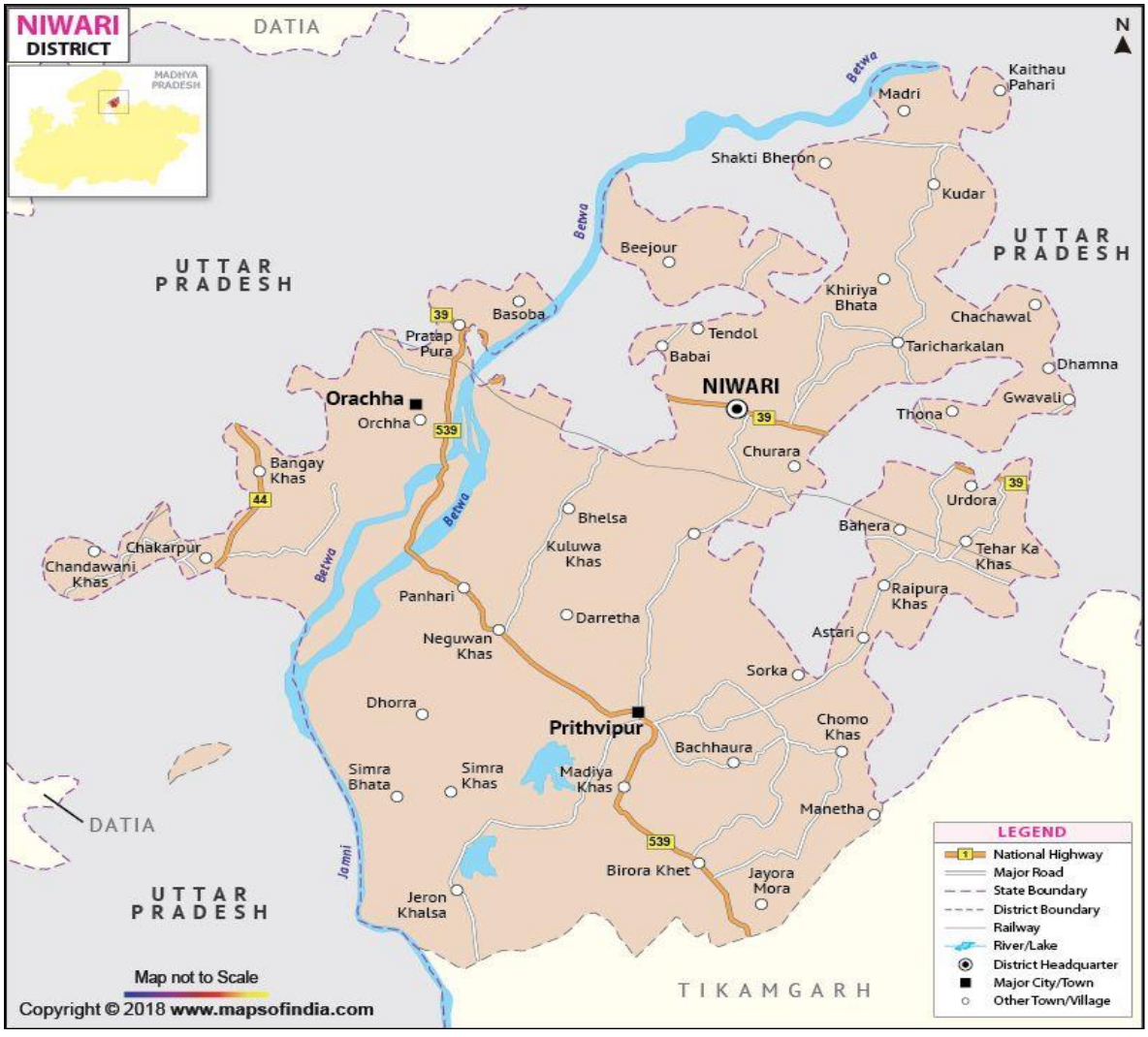
- Taxonomic identificationof plants.
- To study which diseases is very common in Niwari District.
- Route of medicine to cure Arthritis problems.
- Ethno medicinal use of Arthritis problem.

II. METHODOLOGY

The methodology involved studying the traditional medicinal use of plants for treating the arthritis in Niwari district. This was carried out using phyto-sociological method and random sampling along with taxonomic identification of the plant species. The information of these medical value plants have been collected from various Sources and their dependency of forest plants studied. The fiels methodology follows was largely similar to that described by S.K. Jain (1907) Vadiya, ojha, and Hakim frequent field tribes were arranged in order to collect information about the folk knowledge of ethno-medicinal plants used by local people to cure theme from various diseases, several field trips during 2022-25 were conducted to record the Ethno medicinal knowledge from rural communities was documented ,including information on useful plant species, plant part used, their local names, and their taxonomic families was collected.

Table 1-Name of the plant with its family, local names in plant part used for various diseases are given. Herbarium sheets were prepared by stitching them with the help of thread, plants were identified following the standard like Hooker (1872 to 1897) and Cooke (1910to 1908). The information of these medical value plants. have been collected from various sources and their dependency of forest plants Studied.

➢ *Study Area in Niwari District (M.P.)*



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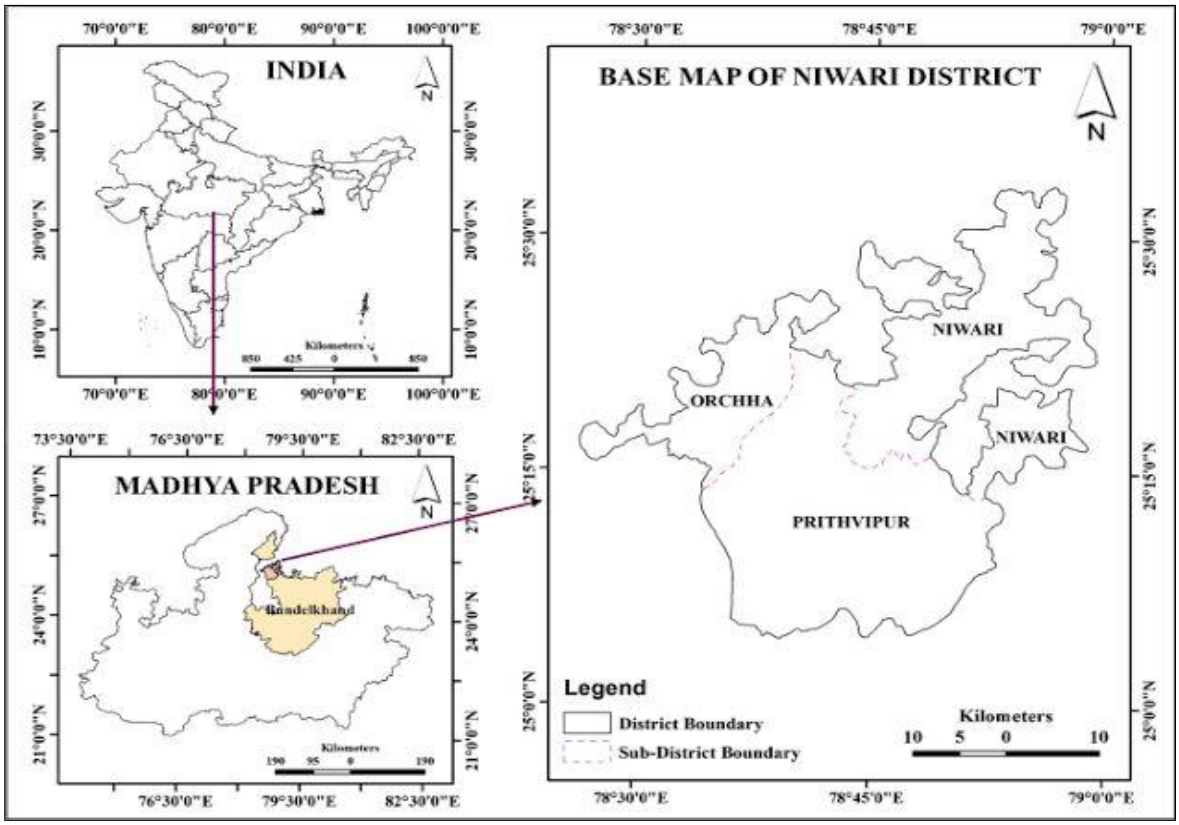

Fig 2 Map of Niwari District in Madhya Pradesh, India.

➢ *Observation: Tabulation of Plant Arthritis*

Table 1 Observation: Tabulation of Plant Arthritis

S.No	Dominant plant /Family Name	Part Used Route of medicine	Symptoms	Allopathic Medicine	Side effect	Ethnomedicinal Uses	Plants Photo
01	*Ricinus communis (Arandi) (Euphorbiaceae)*	Leaves+Oil	Joint pain Joint stiffness swelling	Paracetamol Naproxen	Dehydration allergy	Warm leaf polutice applied on swellonjoints,castor oil use for massage to reduce pain and inflammation.	
02	*WithaniaSomnifera (Ashwagandha) (Solanaceae)*	Root powder + Milk	Inflammation Back pain muscle pain	Diclofenac Lbuprofen	Low blood pressure Allergy	Root powder Used to reduce joint pain, swelling and improve strength; boosts immunity in chronic arthritis.	
03	*Vitex-negundo (Nirgundi) (Lamiaceae)*	Leaves+Oil	Osteoarthritis muscle pain	Aceclofenac	Allergy stomach upset	Leaf paste applied externally; oil massage relieves stiffness and inflammation.	
04	*Commiphora-mukul(Guggal) (Burseraceae)*	Resin	Stiffness Back pain	Aceclofenac	Headache Acidity	Resin-based preparation used for anti-inflammatory and	

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						analgesic effects; reduces stiffness in joints.	
05	*Curcuma longa (Haldi) (Zingiberaceae)*	Rhizome+ Milk	muscle & Back pain Joint pain	Paracetamol	Allergy	Rhizome paste or Turmeric Milk Taken internally; reduces swelling and acts as a natural anti-inflammatory.	
06	*Zingiberofficinale (Ginger) (Zingiberaceae)*	Rhizome+Honey	Joint swelling Joint pain	Naproxen	Acidity Allergy	Decoction or paste used for reducing pain and improving blood circulation in joints	
07	*Azadirachta-indica (Neem) (Meliaceae)*	Leaves, +Oil	Back pain Joint pain	Aceclofenac	Headache Liver irritation	Leaves, Neem Oil Leaves (boiled or tea) relieve joint pain and swelling. Neem oil used to massage affected areas.	
08	*Allium sativum (Lahsun) (Liliaceae)*	Bulb+ Honey	poor blood circulation in joints	Naproxen	Heartburn Increased bleeding tendency	Taken orally or used in oil form for reducing inflammation in arthritis.	
09	*Trigonellafoenum-graecum (Methi) (Fabaceae).*	Seeds+ Honey	weakness Joint swelling	Paracetamol Diclofenac	Allergy	Consumed for reducing inflammation and stiffness in joints	
10	*Moringa oleifera (Sahjan) (Moringaceae)*	Leaves+ Milk	Stiffness Back pain weakness/fatigue	Aceclofenac	Allergy Low blood pressure	In morning (powder/tea) Anti-inflammatory effect; used for pain and joint relief.	
11	*Nyctanthesarbor-tristis L.*	Flower Powder+Honey, Leaf juice+Honey, Seed Paste+Oil	Joint swelling Back pain	Diclofenac	weakness Allergy	Rheumatoid arthritis, gout me traditional use	

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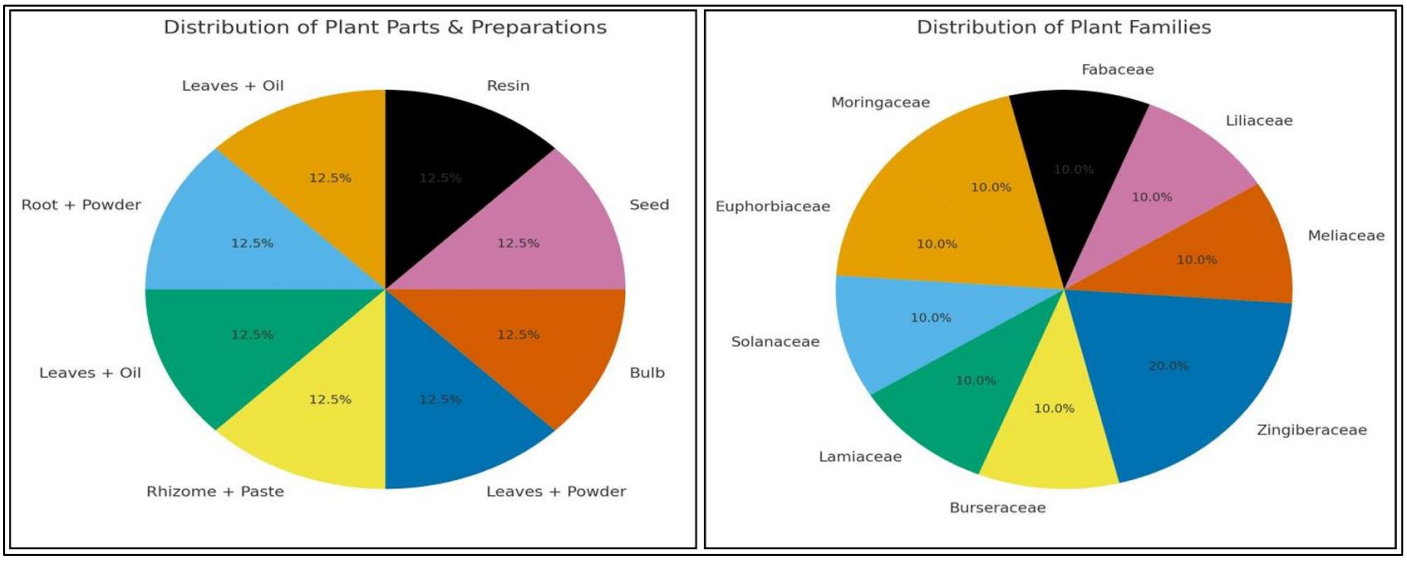

Fig 3 Distribution of Plant Parts & Preparations, Distribution of Plant Families

III. RESULT AND DISCUSSION

A total of 11 plants species belonging to 10 families were recorded. Some plants species used in their whole form for medicine while in other are utilized through specific parts like parts Like- Root, Leaves, Stem Seeds, used in present paper only tabulation have been given and used by the local healers against Arthritis problem. The study of the medicinal plant of Niwari forest has great economic possibilities, as it many led to a vast fund of new information to the forest ecologists & scientist about the impact of tribal`s people as well as rational use of the local resources. India is very rich in two main components of Ethno-medicinal wealth and vegetation.

IV. CONCLUSION

The present study demonstrates that members of the somefamily occupy an important place in the traditional health care practices of Niwari district local communities make extensive use of species from this family for the treatment of heavy bleeding and wound and healings. The predominance of latex, leaves, fruit and roots as medicinal parts reflects the deep traditional knowledge of their therapeutic value in the last findings emphasize the need for systematic conservation of indigenous knowledge sustainable harvesting process.

ACKNOWLEDGEMENTS

I am thankful to Prof. Amita Arjariya Mem. H.O.D SOS Botany M.C.B.U. Chhatarpur (M.P.) who provide us all facilities during research work. And again I am thankful to Dr. J.R. Ahirwar Dean of life science (A.S.C.S.A.G.) PG College Niwari District M.P.

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[15]. Fig2-Map source https://share.google/2Q98g8fl8Zm8zJkuu