

ETHNOMEDICINAL PLANTS USE BY *KOKNA* TRIBE IN KALWAN TEHSIL, NASHIK, MAHARASHTRA

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ABSTRACT

The present study documents the ethnomedicinal knowledge of the Kokna tribal community of Kalwan Tehsil, Nashik District, Maharashtra. A total of 30 medicinal plant species were recorded through field surveys and interactions with local traditional healers. Information on medicinal uses, plant parts used, and methods of administration was documented. The plants are traditionally used to treat digestive, respiratory, skin, urinary, rheumatic, dental, and other ailments. Leaves, roots, stems, bark, fruits, seeds, and whole plants are mainly used in the form of decoctions, juices, pastes, powders, and extracts. The study highlights the importance of conserving the valuable traditional medicinal knowledge of the *Kokna* community.

Keywords: *Bhagat, Ethnobotanical Studies, Medicinal plants, Nashik*

INTRODUCTION

Ethnomedicinal knowledge represents the traditional understanding of plants and their therapeutic uses developed and transmitted by indigenous and local communities over generations. Medicinal plants have played an important role in primary healthcare, particularly in rural and tribal areas where traditional remedies continue to be widely practiced. Such indigenous knowledge includes information about plant identification, medicinal properties, parts used, preparation methods, and modes of administration.

Maharashtra is rich in plant diversity as well as tribal communities possessing valuable traditional knowledge of medicinal plants. The *Kokna* tribe is one of the important tribal communities of Maharashtra, with a significant population inhabiting the hilly and forested regions of Nashik District. Their traditional healthcare practices are closely associated with the surrounding vegetation, and medicinal plants are commonly used to manage various ailments.

Kalwan Tehsil of Nashik District forms an important area for studying the ethnomedicinal practices of the *Kokna* community. Local knowledge holders such as traditional healers, elderly people, and other community members possess considerable knowledge regarding the medicinal properties of locally available plants. However, such knowledge is largely transmitted orally from one generation to another and may be gradually declining because of changing lifestyles, modernization, and loss of natural habitats.

Previous ethnobotanical studies from Nashik District have documented several medicinal plants used by tribal and rural communities. However, continuous documentation of the current ethnomedicinal knowledge of the *Kokna* community in Kalwan is important for understanding changes in traditional plant use and for conserving indigenous knowledge. Therefore, the present study was undertaken to document the ethnomedicinal knowledge of the *Kokna* tribal community of Kalwan Tehsil, Nashik district, Maharashtra, with particular emphasis on the medicinal plants used, plant parts utilized, ailments treated, and methods of preparation and administration. The study may provide a useful basis for future ethnobotanical, pharmacological, conservation, and phytochemical investigations.

MATERIALS AND METHODS

Kalwan Tehsil is located in Nashik District, Maharashtra, India, in the hilly Sahyadri region. The area has rich vegetation and a significant tribal population, including the *Kokna* community, who depend partly on local plant resources for traditional healthcare. Kalwan is situated approximately at 20.63° N latitude and 74.21° E longitude.

The present study was carried out in Kalwan Tehsil of Nashik District, Maharashtra, focusing on the ethnomedicinal knowledge of the *Kokna* tribal community. Field surveys were conducted to document medicinal plants traditionally used by the local people. Ethnomedicinal information was collected through personal interviews and discussions with traditional knowledge holders, Vaidus, Bhagats, elderly people, and local villagers.

Information regarding the plant name, local name, family, medicinal use, plant part used, method of preparation, and method of administration was recorded. Plant specimens were collected during field visits, identified using standard floras and relevant botanical literature, and preserved as herbarium specimens. The documented information was then systematically organized and analyzed to assess the diversity and traditional medicinal importance of the plants used by the *Kokna* community.

To collect the data of Ethnobotanical plants frequent visits were arranged in different seasons (Monsoon, Winter and Summer). Information was collected from tribal people conducting oral interviews of Vaidus, Bhagats and elderly village people who have knowledge of therapeutic uses of indigenous plants and mostly use them in treating various ailments. The documented species were identified by referring various Floras, Keys and Monographs such as Flora of Maharashtra by Almeida (1996-2009), Singh et-al. (2000), Flora of Nashik District P. Lakshminarasimhan and B.D. Sharma (1990).

RESULT

The study documented 30 medicinal plant species (Table No.1) traditionally used by the *Kokna* tribe of Kalwan Tehsil, Nashik. The plants were used to treat various ailments such as digestive disorders, cough, skin diseases, wounds, urinary problems, rheumatism, toothache, fractures, and menstrual disorders. Leaves and roots were commonly used, while decoctions, juices, pastes, powders, extracts, and direct applications were the main methods of administration.

Table No. 1: List of plants used by *Kokna* tribe

Sr. No.	Plant Name	Medicinal Use	Plant Part Used	Method of Administration
1.	<i>Abrus Precatorius</i> L.	Digestive, Nephroprotective and Anti-Fertility,	Leaves, Root	Leaves are chewed, root paste is given orally
2.	<i>Abelmoschus moschatus</i> Medik	Abortifacients	Seeds and Roots	Decoction
3.	<i>Abutilon persicum</i> (Burm.f.) Merr	Cough	Seeds	Seeds are smoked
4.	<i>Achyranthes aspera</i> L.	Digestive disorders, Appetizer and Digestive, Piles, skin eruptions	Whole plant.	Juice is taken orally Paste applied at affected parts, Plant decoction is applied on skin eruptions

5.	<i>Adelocaryum coelestinum</i> (Lindl.) Brand	Swimmer's ear, Otagia	Leaves	Powder with coconut oil
6.	<i>Aeschynomene indica</i> L.	Spermicidal	All plant parts	Paste with water is given
7.	<i>Alternanthera sessilis</i> (L.) R.Br. ex DC.	Skin problems, Blisters	Leaves	Ash mixed with Oil is Applied
8.	<i>Amaranthus spinosus</i> L.	Menorrhagia, gonorrhoea, fevers, urinary troubles	Root	A paste and juice of the root
9.	<i>Anisomeles heyneana</i> Benth.	Catarrhal, wounds	Leaves	A Powder is inhaled; a pinch of paste of leaves is mixed with coconut oil and applied over the affected parts
10.	<i>Anogeissus latifolia</i> (Roxb. ex DC.) Wall. exGuill. &Perr.	Cough, epileptic fits	Bark, Leaves	Decoction of bark, leaf decoction
11.	<i>Argyreia nervosa</i> (Burm.f.) Bojer	Aphrodisiac, diuretic gonorrhoea, syphilis.	Root	Powered roots are given with milk
12.	<i>Ampelocissus latifolia</i> (Roxb.) Planch.	Wound healing, Bone fracture and stomach pain	Root, stem, bark	Crushed and applied topically, Juice taken orally
13.	<i>Arisaema murrayi</i> (J.Graham) Hook.	Snake-bites	Corms	Paste of Corm applied at point of snake bite
14.	<i>Artemisia nilagirica</i> (C.B.Clarke) Pamp.	Diabetes, Epilepsy, Leucorrhoea	Complete Plant	Juice of Plant part twice a day
15.	<i>Artemisia vulgaris</i> L.	Asthma and Bronchitis	Leaves and Flowers	Inhalation of smoke from the flowering twigs
16.	<i>Asparagus racemosus</i> Willd.	Galactagogue	Root tubers	Decoction
17.	<i>Aspidopterys cordata</i> (B.Heyne ex Wall.) A.Juss.	Treatment of eyes	Twigs	Twig extract
18.	<i>Barleria prionitis</i> L.	Toothache	Stem	Chewing of Stem under affected tooth
19.	<i>Begonia crenata</i> Dryand.	Acidity/Ulcer	Whole	Juice is taken
20.	<i>Bergia ammannioides</i> Roxb.	Treatment of wounds	Leaves	Paste applied to injured part

21.	<i>Blepharis maderaspatensis</i> (L.) B.Heyne ex Roth	Fracture	Leaves	Mixing handful of leaf paste of the plant with powdered black gram, crushed onion bulb and white yolk of hen's egg. The mixture is applied over the fractured portion
22.	<i>Bombax insigne</i> Wall.	Dysentery and Diarrhoea.	Gum	Gum is soaked in water and taken orally
23.	<i>Breynia retusa</i> (Dennst.) Alston	Boils, Piles, Tooth pain, gum problem	Leaves	Leaves are applied on affected parts, the extract from leaves is used once a day. Leaves boiled in water and use this water for gargling
24.	<i>Bridelia squamosa</i> (Lam.) Gehrm	Mouth ulcer	Fruits	Fruits are eaten
25.	<i>Butea monosperma</i> (Lam.) Kuntze	Urinary problems Regulating menstrual cycle.	Flowers, leaf	Decoction
26.	<i>Cajanus lineatus</i> (Wight & Arn.) Maesen	Anti-asthmatics, Cough	Leaf	Leaf Juice is taken
27.	<i>Callicarpato mentosa</i> (L.) L.	Oral infections, intestinal complaints, rheumatism,	Seeds, leaf	Leaf extract
28.	<i>Capparis zeylanica</i> L.	Rheumatism.	Root	Root juice is taken orally
29.	<i>Cardiospermum halicacabum</i> L.	Rheumatoid arthritis	Whole Plant	Decoction made from shade dried powder (20 gm) of whole plant is massaged with mild hot coconut oil externally twice a day
30.	<i>Carissa carandas</i> L.	Urinary Infection	Fruits	3 or 4 unripe fruits are consumed

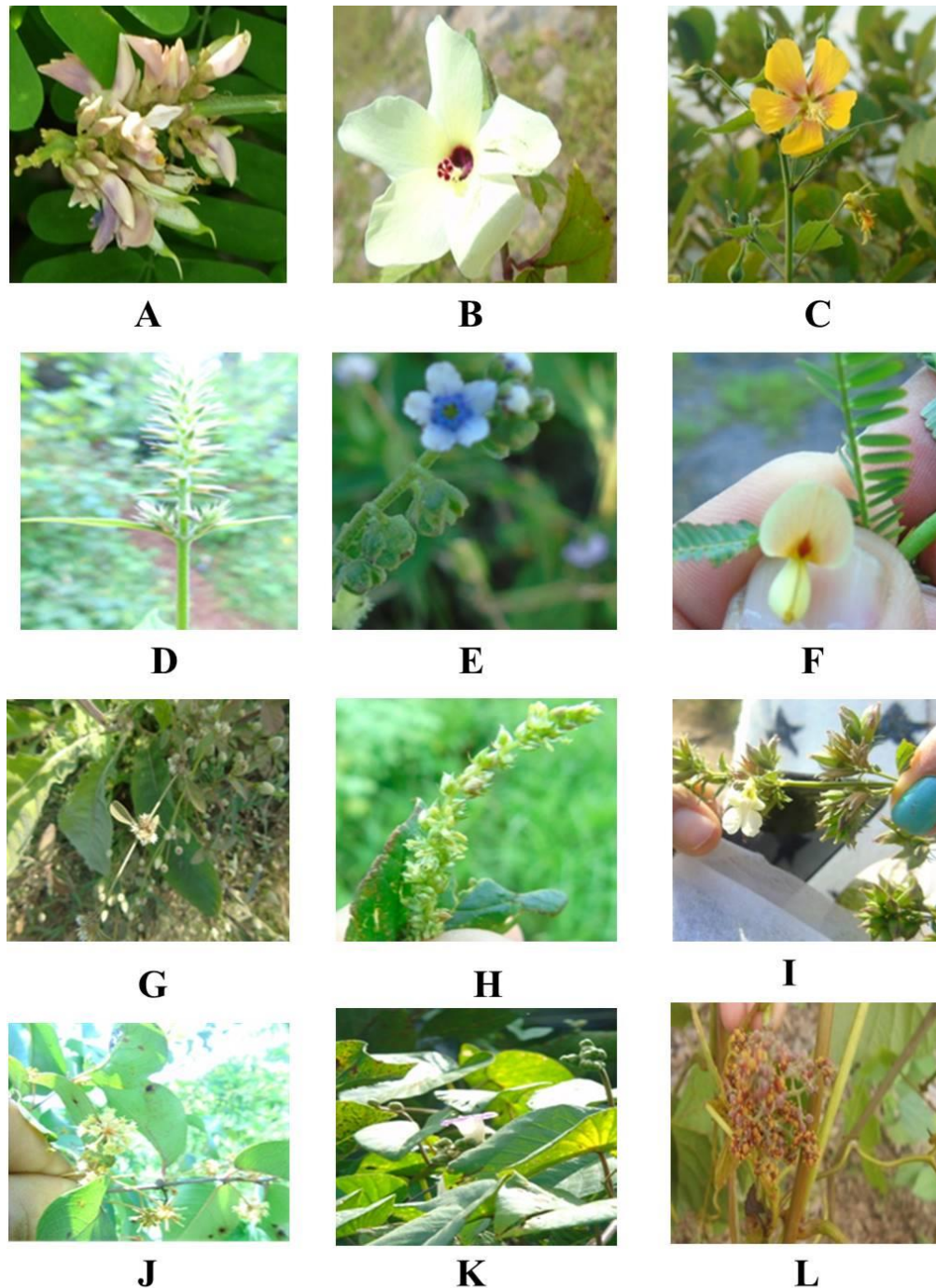


Fig. 1: Plants used by Kokna tribe.

A. *Abrus Precatorius* L.; **B.** *Abelmoschus moschatus* Medik. ; **C.** *Abutilon persicum* (Burm.f.) Merr.
D. *Achyranthes aspera* L.; **E.** *Adelocaryum coelestinum* (Lindl.); **F.** *Aeschynomene indica* L.
G. *Alternanthera sessilis* (L.) R.Br. ex DC.; **H.** *Amaranthus spinosus* L.; **I.** *Anisomeles heyneana* Benth.
J. *Anogeissus latifolia* (Roxb. ex DC.); **K.** *Argyreia nervosa* (Burm.f.) Bojer; **L.** *Ampelocissus latifolia*.Wall.exGuill. &Perr. (Roxb.) Planch

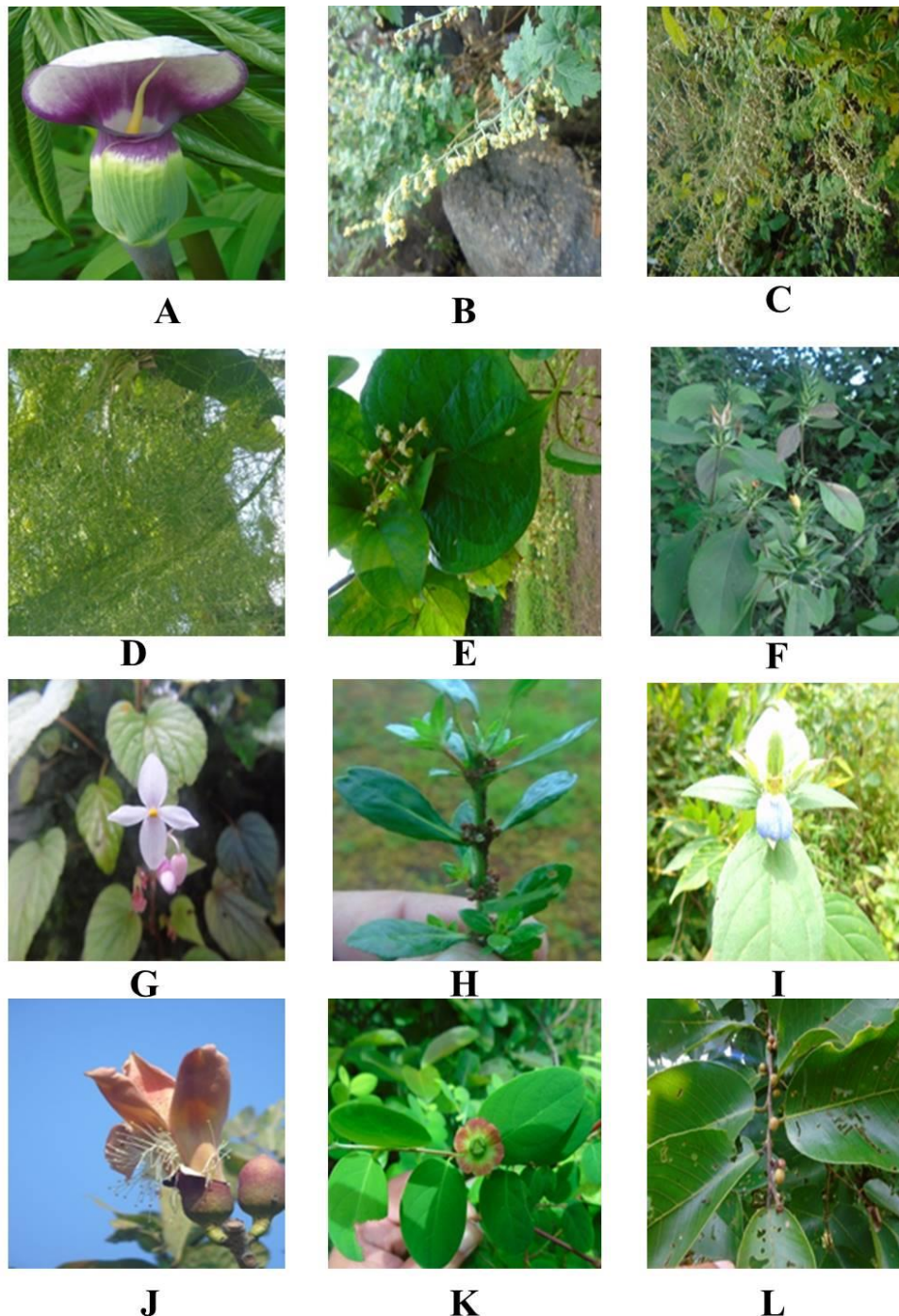


Fig. 2: Plants used by Kokna tribe.

A. *Arisaema murrayi* (J.Graham) Hook.; **B.** *Artemisia nilagirica* (C.B.Clarke) Pamp.; **C.** *Artemisia vulgaris* L.; **D.** *Asparagus racemosus* Willd.; **E.** *Aspidopterys cordata*; **F.** *Barleria prionitis* L.; **G.** *Begonia crenata* Dryand.; **H.** *Bergia ammannioides* Roxb.; **I.** *Blepharis maderaspatensis* (L.) (B.Heyne ex Wall.) A.Juss.; **J.** *Bombax insigne* Wall.; **K.** *Breynia retusa* (Dennst.) Alston.; **L.** *Bridelia squamosa* L.

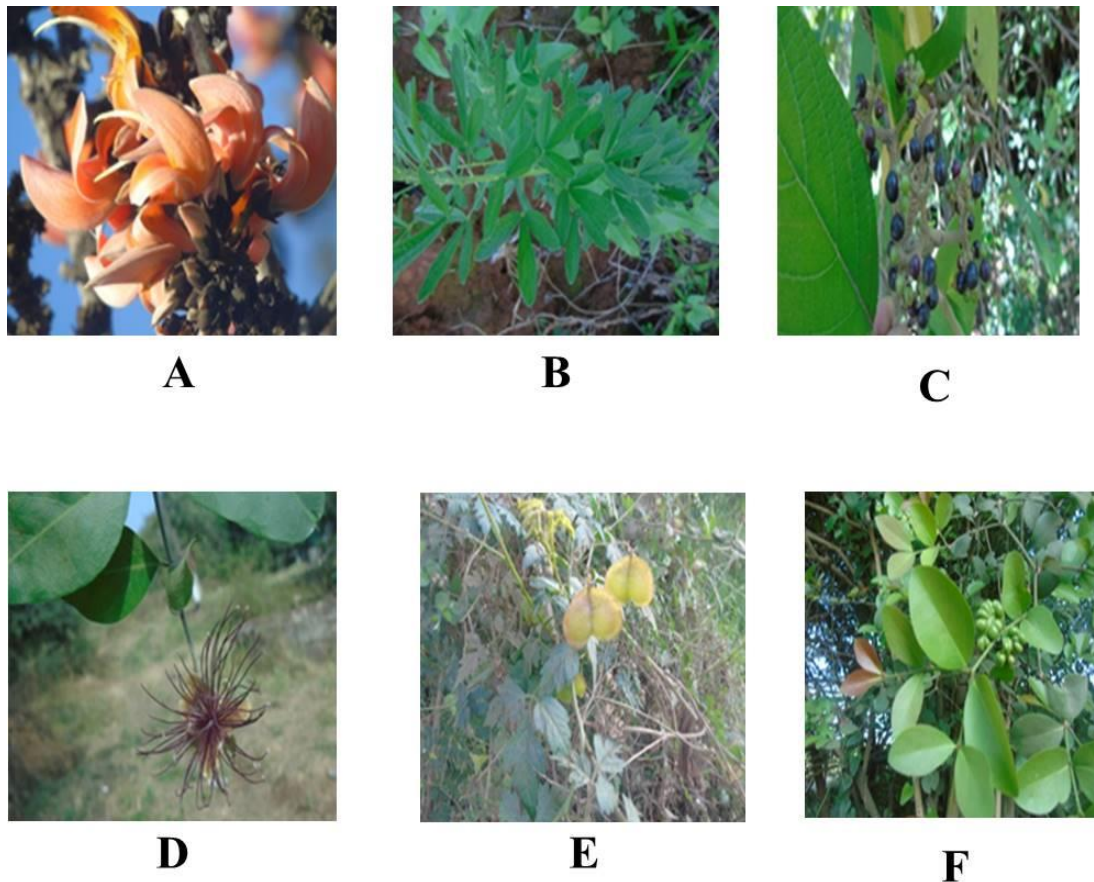


Fig. 3: Plants used by Kokna tribe.

A. *Butea monosperma* (Lam.) Kuntze; B. *Cajanus lineatus* (Wight & Arn.) Maesen.; C. *Callicarpus mentosa* (L.); D. *Capparis zeylanica* L.; E. *Cardiospermum halicacabum* L.; F. *Carissa carandas* L.

DISCUSSION

The findings show that the *Kokna* community possesses rich ethnomedicinal knowledge and depends on locally available plants for traditional healthcare. The diversity of plant parts and preparation methods reflects their extensive traditional practices. Further phytochemical, pharmacological, and conservation studies are needed to validate and preserve this valuable indigenous knowledge.

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