

ETHNOBOTANICAL SURVEY OF MEDICINAL PLANTS OF WAN WILDLIFE SANCTUARY

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Abstract- The Wan Wildlife Sanctuary is situated in Akot Wildlife Division, Akot of Akola district, Maharashtra which contributes 211 sq. km area of Melghat Tiger Reserve. It lies between the longitudes 21°11'20"E to 21°10'47"E and latitudes of 76°46'00"N to 77° 05'00"N. Approximately an area of 205 sq km is actual forest area and 6 sq km area is of cultivation and 'Gaathan' area of eight ex-forest villages called as 'Medow'.

Present survey work has been undertaken during the period 2016 – 2018; when 'Talai' was the only village present in the wildlife sanctuary. In April, 2018 village 'Talai' was rehabilitated in outs curt area of wildlife sanctuary and named as 'Navi Talai'. In this survey work altogether ethno-botanical data of 44 plants of 24 families have been collected from 'Rathi' & 'Korku' communities. However, 'Rathi's' are more in number as compared to 'Korku's'. The present data have been also collected from local forest field workers of wildlife sanctuary area most of them belong to 'Korku' community. These plants were used by local communities or by local forest workers as medicines.

Key words: Melghat Tiger Reserve, Wan Wildlife Sanctuary, Ethnobotanical Survey, Rathi, Korku, Community.

Introduction:

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Materials & Methods:

The ethnobotanical surveys were carried out during July, 2016 to April, 2018. During this period total four field tours were undertaken to wildlife sanctuary. The information has been collected from 'Rathi' & 'Korku' communities residing in the village 'Talai' as well as from local forest field workers of Wan Wildlife Sanctuary.

Enumeration:

1) *Andrographis paniculata* (Burm.f.) Wall. ex Nees

Family – Acanthaceae

Parts used – Leaves, Whole Plant

Uses - Leaf powder mixed in coconut oil and applied on the lesions for two days. Whole plant powder mixed in water, filtered and given internally in fever or whole plant cut in to small pieces and kept overnight in water filtered and given internally, twice a day in malaria fever.

2) *Pachystachys velutina* (W.Bull) A.L.A.Côrtes

Family – Acanthaceae

Parts used – Roots, Leaves

Uses - The root extract of this plant given orally twice a day to cure urinary infection. Leaf pest is externally applied in skin diseases.

3) *Achyranthes aspera* L.

Family – Amaranthaceae

Parts used – Stem, Root, Whole Plant

Uses - The root powder is sprinkled over the lesion in skin diseases. Decoction of root and stem is administered orally thrice a day for three months for infertility in women. Ash of the whole plant mixed with honey in equal proportion given in cough and cold.

4) *Amaranthus spinosus* L.

Family – Amaranthaceae

Parts used - Leaves

Uses – Topical application of leaf juice used to prevent irritation after insect bite.

5) *Lannea coromandelica* (Houtt.) Merr.

Family – Anacardiaceae

Parts used - Gum

Uses – Gum mixed with coconut oil used for external application on infected area twice in a day to cure skin diseases. Resinous gum applied on wound for healing.

6) *Buchanania cochinchinensis* (Lour.) M.R. Almeida

Family – Anacardiaceae

Parts used – Leaves, Kernel

Uses – Topical application of leaf paste used to cure skin disease. Topical application of kernel powder mixed with oil thrice in a day used to cure wound.

7) *Semecarpus anacardium* L.f.

Family – Anacardiaceae

Parts used - Fruits, seeds.

Uses - Black acrid juice obtained from the fruits is applied externally to remove rheumatic pains. Fruit cover mixed with honey is administered orally in empty stomach for the treatment of gastric problems.

8) *Calotropis procera* (Aiton) W.T. Aiton

Family – Apocynaceae

Parts used – Latex, Root.

Uses - Dried root powder in water is taken twice a day to cure dysentery and intestinal worms. Latex applied topically on knee joints to cure knee pain.

9) *Hemidesmus indicus* (L.) R. Br.

Family – Apocynaceae

Parts used - Root

Uses - Root powder mixed with honey is given to treat diarrhoea. A paste of the roots is applied externally on swellings and rheumatic joints.

10) *Wrightia tinctoria* subsp. *rothii* (G.Don) Ngan

Family – Apocynaceae

Parts used - Leaves

Uses – Leaf paste applied externally for snake bite. Hot water mixed with leaf powder used to take bath to cure skin infection.

11) *Asparagus racemosus* Willd.

Family – Asparagaceae

Parts used - Root

Uses - Root powder is given with milk to feeding mother as a lactating tonic.

12) *Chlorophytum borivilianum* Santapau & R.R. Fern.

Family – Asparagaceae

Parts used - Roots

Uses – Oral administration of one spoon root powder with cow milk used to strengthen the bone density.

13) *Eclipta prostrata* (L.) L.

Family – Asteraceae

Parts used - Leaves

Uses – Leaf powder mixed with coconut oil used for head massage to reduce hair loss and dandruff problem. Leaf juice is externally applied to cure swelling.

14) *Lagascea mollis* Cav.

Family – Asteraceae

Parts used - Leaves

Uses- Fresh leaf paste is applied over the wounds to cure.

15) *Boswellia serrata* Roxb.

Family – Burseraceae

Parts used – Bark

Uses – Stem bark ash mixed with turmeric applied on injuries to reduce pain. One teaspoon of gum is boiled in one cup of water. After cooling, this water becomes a sticky paste; this sticky paste is applied topically on joints to cure joint pain.

- 16) *Cleome viscosa* L.
Family – Cleomaceae
Parts used - Leaves
Uses – Fresh leaf paste is applied externally on the wounds to reduce pain and to cure wounds.
- 17) *Momordica charantia* L.
Family – Cucurbitaceae
Parts used - Fruits
Uses - Fruit juice and leaf decoction used in diabetes.
- 18) *Trichosanthes tricuspidata* Lour.
Family – Cucurbitaceae
Parts used - Seeds
Uses – Two or three seeds are powdered and orally given with water twice a day to cure abdominal pain.
- 19) *Diospyros malabarica* (Desr.) Kostel.
Family – Ebenaceae
Parts used – Fruits, bark
Uses - The decoction of the fresh bark is used in the treatment of fevers. Ripe, the fruit is eaten in treating diarrhoea and dysentery.
- 20) *Mallotus philippensis* (Lam.) Müll.Arg.
Family – Euphorbiaceae
Parts used - Fruits
Uses – The powder obtained from the skin of the fruit is applied externally to treat parasitic infections of the skin. A decoction of the leaves is used in the abdominal diseases.
- 21) *Ricinus communis* L.
Family – Euphorbiaceae
Parts used - Leaves
Uses – The leaves are heated and applied to cure a contagious skin disease. Leaf juice poured in nostril to cure jaundice.
- 22) *Abrus precatorius* L.
Family – Fabaceae
Parts used – Leaves, seeds
Uses – The leaves are chewed twice a day to treat diabetes. The leaves and root boiled with water and this decoction used to cure fever, cough and cold.
- 23) *Clitoria annua* J. Graham
Family – Fabaceae
Parts used - Leaves
Uses - Leaf juice mixed with water this drink given twice a day used in fever
- 24) *Guilandina bonduc* L.
Family – Fabaceae
Parts used - Seeds
Uses – Roasted seed powder mixed with coconut oil used for external application on the site of scorpion sting to remove poison from the body.
- 25) *Uraria picta* (Jacq.) Desv. ex DC.
Family – Fabaceae
Parts used - Roots
Uses – One small cup of decoction of root is orally given twice a day to cure diarrhoea.
- 26) *Lavandula bipinnata* (Roth) Kuntze
Family – Lamiaceae
Parts used – Leaves
Uses – Leaf pest applied on infected areas in skin infection.
- 27) *Tectona grandis* L.f.
Family – Lamiaceae
Parts used – Seed
Uses – Bark of this plant crushed with Mango bark and this juice used in the treatment of bronchitis.

28) *Helicteres isora* L.

Family – Malvaceae

Parts used – Fruits

Uses – Fried pods are given to children to kill intestinal worms.

29) *Soymida febrifuga* (Roxb.) A. Juss.

Family – Meliaceae

Common Name – Rohan

Parts used – Bark

Uses – Bark boiled with water and this one cup of decoction used in the treatment of diarrhoea, dysentery and fever.

30) *Azadirachta indica* A. Juss.

Family – Meliaceae

Parts used – whole plant

Uses – Small stick of the twigs use as a toothbrush toothache. Leaf added in bath water to cure skin infection.

31) *Ensete superbum* (Roxb.) Cheesman

Family – Musaceae

Parts used – Seeds

Uses – Seeds are crushed in water and this mixture given orally in dysentery.

32) *Flueggea virosa* (Roxb. ex Willd.) Royle

Family – Phyllanthaceae

Parts used – Leaves

Uses – Leaves decoction used in the treatment of fever. Fruits mixed with pulses are eaten to cure stomach disorders. Women eat fruits for increase fertility.

33) *Phyllanthus emblica* L.

Family – Phyllanthaceae

Parts used – Fruits

Uses – Fruits are eaten for blood purification. Fruit powder mixed with water and this drink used in stomach disorder.

34) *Piper betel* L.

Family – Piperaceae

Parts used – Leaves

Uses – Leaf pest along with salt and oil applied on infected areas to cure a Shingles.

35) *Piper longum* L.

Family – Piperaceae

Parts used – Fruits

Uses – Fruit taken internally in the treatment of cough and cold. Fruit powder mixed with dry ginger power applied in headache.

36) *Plumbago zeylanica* L.

Family – Plumbaginaceae

Parts used – Roots

Uses – Root powder mixed with ghee and this paste is externally applied to relieve headache. Roasted root power rubbed on wound for wound healing.

37) *Adina cordifolia* (Roxb.) Brandis

Family – Rubiaceae

Parts used – Bark, Leaves

Uses – One cup of bark decoction given internally to cure stomach disorder. Leaves crushed in water and applied to cure skin infection.

38) *Ixora pavetta* Andr.

Family – Rubiaceae

Parts used – leaves

Uses – Flower powder mixed with milk this drink used to cure cough. Leaves boil in water and this decoction of the leaves drunk after childbirth.

39) *Gardenia latifolia* Aiton

Family – Rubiaceae

Parts used – Roots

Uses – Root powder mixed with water this mixture applied to cure wound healing.

40) *Aegle marmelos* (L.) Corrêa

Family – Rutaceae

Parts used – Fruits

Uses – Fresh fruit pulp mixed with water this drink drunk during summer to prevent from heat stroke.

41) *Madhuca longifolia* var. *latifolia* (Roxb.) A. Chev.

Family – Sapotaceae

Parts used – Flowers

Uses – Roasted flowers are eaten with Jaggery to increase immunity and also to cure cough and cold.

42) *Datura metel* L.

Family – Solanaceae

Common Name – Kala Dhotra

Parts used – Fruits, Roots and leaves.

Uses - Fruit ash mixed with coconut oil applied externally on wounds and acne. The fresh root powder and fresh leaves are soaked in water and the liquid is given in enema as an abortifacient.

43) *Curcuma pseudomontana* J. Graham

Family – Zingiberaceae

Parts used – Rhizome

Uses –The roots are boiled and eaten in dysentery and cardiac diseases. Paste of rhizome applied on swollen body part.

44) *Balanites aegyptiaca* (L.) Delile

Family – Zygophyllaceae

Parts used – Roots, Fruits

Uses - The roots are boiled in water this drink to be used in the treatment of oedema and Stomach pains. The fruit pulp used to cure mouth ulcer, whooping cough and skin diseases.

Conclusion:

‘Rathi’ & ‘Korku’ communities are the major communities residing in the village ‘Talai’ of Wan Wildlife Sanctuary area. However, both of these communities are mainly dependent on forests for earning their livelihood as well as for medicinal plants as a solution to solve their day-to-day health problems. All aforesaid plants were used by these communities and by local forest workers as a medicine.

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