



Medicinal plants used in folk remedies by the moyon tribe of Manipur, India

Eliza Chara, Wanglar Alphonsa Moyon

¹ Assistant Professor, Department of Sociology, Highland National College, Kanglatongbi, Manipur, India

² Assistant Professor, Department of Zoology, South East Manipur College, Komlathabi, Manipur, India

Abstract

The Moyon Naga tribe is one of the many Naga tribes inhabiting Chandel and Tengnoupal districts of Manipur, India. The Moyons are with their unique traditional approaches to treatment of common ailments by making use of locally available plants. The study identifies 66 such medicinal plants used by the Moyon: 60 plants with identified scientific name and the other 6 plants without scientific names. These plants with medicinal properties are used by the Moyons to treat everyday ailments like common cold, cough, dermatological ailments, body and joint aches, stomach aches, dysentery, oral-dental and blood pressure. Other ailments treated include stones (kidney and bladder) and liver problems. Ethnobotanical knowledge is essential for the Moyon to preserve traditional knowledge system as well as for immediate treatment of ailments on events of non-availability/accessibility to modern medicines.

Keywords: moyon tribe; ethnobotany; medicinal plants; traditional knowledge; health

Introduction

The North-East Indian state of Manipur is rich in botanical resources. This richness is attributed to the ideal location of the state in the junction of world's two biodiversity hotspots, viz, Eastern Himalaya and the Indo-Burma. The rich plant diversity in the state can be attributed variations in climatic, altitudinal and edaphic factors (Singh *et al.* 2017:544) [16]. The plant diversity of the state is blessed with various wild plants with pharmaceutical properties used in folk remedies. The Forest Department of Manipur alone states that about 1,200 medicinal plants are found in the state (2021). These various medicinal plants were used to treat various health ailments by the people of Manipur since time immemorial (Singh *et al.* 2017:544) [16]. Although modern scientific or allopathic medicines are widely used, the people still depend on these medicinal plants and folk remedies for day to day and alternative treatments (in the event of non accessibility of scientific medicines).

Medicinal plants used in folk remedies are an interest for researchers with many studies on ethno-medicines of various communities in Manipur. Notable works in the recent years on medicinal plants of Manipur are by Khumbongmayum *et al.* (2005) [6], Singh & Singh (2009) [15], Lokho (2012) [9], Rajkumari *et al.* (2013), Leishangthem and Sharma (2014), Devi and Das (2015), Devi *et al.* (2015) [14], Sharma *et al.* (2015) [14], Singson *et al.* (2016) [17], Yuhlung and Bhattacharyya (2016) [18], Kshetrimayum (2017) [7] and Singh *et al.* (2017) [16]. The unique feature of ethno-medicines in Manipur is its diversity on account of the various communities inhabiting the state. Each community or tribe has its own specific folk applications of medicinal plants. Although many of the medicinal plants are collectively used by all the tribes, the methods and applications sometimes differ from community to community. This article focuses on the medicinal plants used by the Moyon tribe of Manipur.

The Moyons inhabit the Chandel and Tengnoupal Districts of Manipur, India and Sagaing, Myanmar. They number

around 2,600 and scattered in 18 villages (Chara 2021:410) [1]. Like all the communities of Manipur, the Moyons also make use of the wild plants exploiting their therapeutic benefits to treat various ailments since time immemorial. These medicinal plants continue to be used till date, although the knowledge of folk medicine and treatment is being forgotten very fast as a result of exposure to modern scientific medicines. There has been no significant study on the ethnobotany of the Moyon tribe or on the plant diversity in the land inhabited by them. Few of the studies made on the Moyon ethnobotany include brief mentioning of ethnomedicine practices by Moyon (2004:173) [10] and ichthyotoxic plants by Moyon and Singh (2017). Moyon (2004:173) [10] mentions seven plants/plant products used in folk treatment of various ailments.

Taking note on the roles of ethnobotanical medicines among the Moyon tribe, inadequate documentation and diminishing knowledge of traditional practices, the article explores the various plants used by the Moyons for treatment of ailments as well as ascertaining their scientific (binomial) names with the objective to document and present the traditional ethno-medicine of the Moyon community in the midst of modern scientific/medical advancement.

Materials and Methods

Ethnobotanical field survey was extensively carried out during 2019-2021 in selected four villages (clustered in three areas) - Kapaam and Tunghphae, Khungjuur and Bujuur Khuwfluw. Routine methods of botanical collections were followed in the study. Information on medicinal uses of plants and their derivatives were obtained following in-depth interviews, field observations and anecdotes from individuals with knowledge on medicinal plants and folk remedies. Apart from that, the everyday lives and activities of the people were also noted to observe and note the applications of those medicinal plants. The scientific (binomial) names were also identified with consultation of expert teams from the Department of Zoology and

Department of Botany, South East Manipur College, Manipur, India and Forest Department of the Government of Manipur (India). Similar works on neighbouring tribes by

Devi and Salam (2016)^[3] and Yuhlung and Bhattacharyya (2016)^[18] were also consulted to compare the plant samples and scientific names.

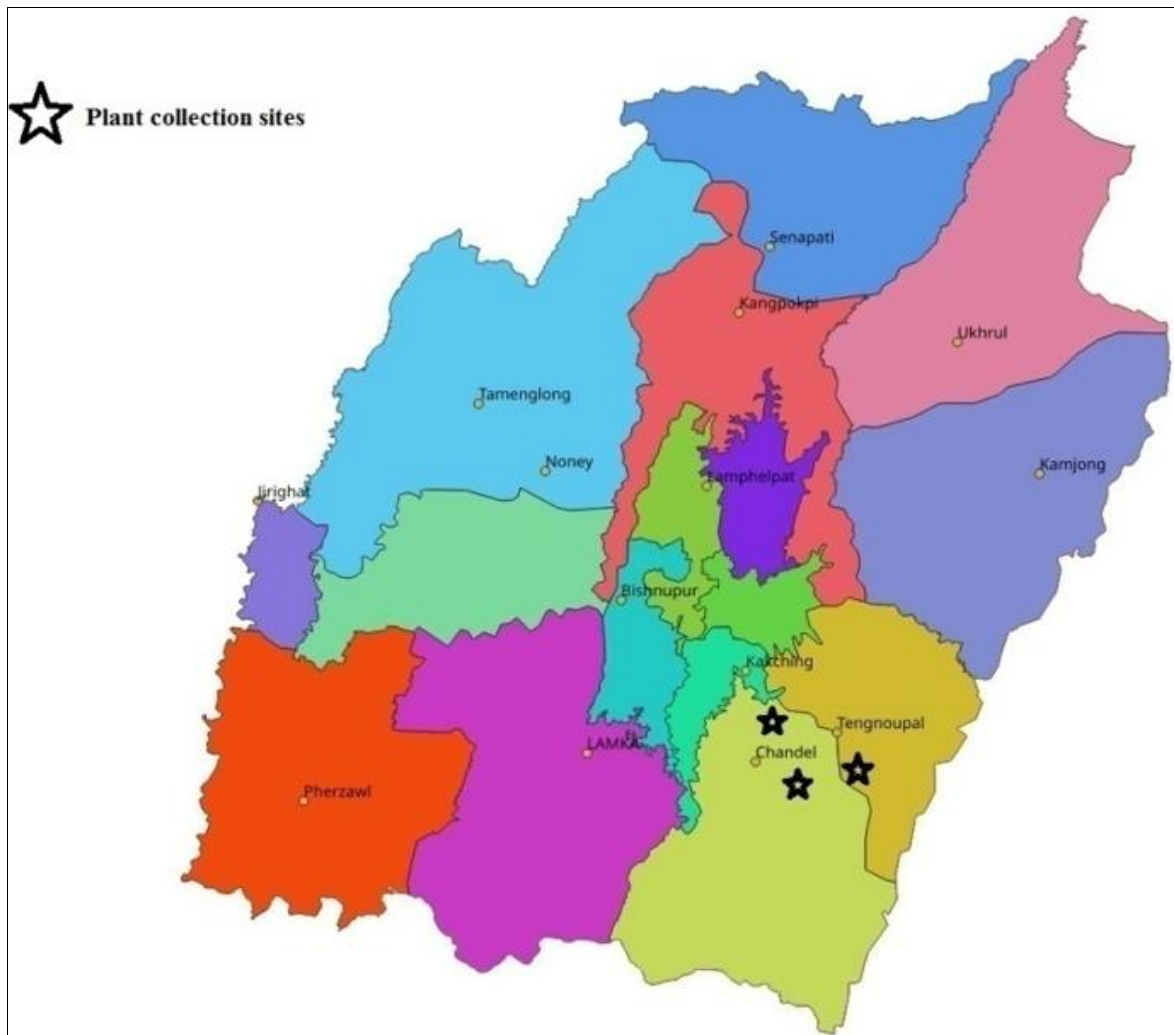


Fig 1: Map of Manipur, India (collection sites in star)

Results

The study identified 66 plants used in folk remedies to treat various ailments.

The scientific names of 60 plants could be identified. They are as follow in the order of: Local name, scientific name, parts of the plant used, ailments treated and the method(s) of application.

1. Chuwrnam

Scientific name: *Ageratum conyzoides* (L.)L.

Parts used: Leaves

Ailment treated: Cuts, bruises and sores

Method of usage: Crushed leaves are applied/smeared on the affected spot.

2. Ipaennabuw

Scientific name: *Anredera cordifolia* (Ten.) Steenis

Parts used: Leaves

Ailment treated: Sores, wounds, boils and scabies on dog skin

Method of usage: Paste made of the leaves is smeared on the affected/infected area.

3. Naathurrii

Scientific name: *Impatiens balsamina* L.

Parts used: Leaves

Ailments treated: Menstrual problems like cramps and irregular periods

Method of usage: The leaves (in odd numbers) are boiled in water. The stock is then consumed (drink).

4. Ikaangrii

Scientific name: *Kalanchoe pinnata* (Lam.) Pers.

Parts used: Leaves

Ailments treated: Burns, Ear canal infection and kidney/bladder stone

Method of usage:

1. Fresh leaves are roasted on a hot charcoal to become squishy. For burns, the warm roasted leaf is pasted on the affected area. For ear canal infection, the roasted leaf is squeezed to produce liquid: a drop or two is applied on the infected ear.
2. To treat kidney/bladder stones, a fresh whole leaf is consumed in empty stomach. Regular drinking of water is mandatory.
3. The heated leaf is also pasted on the sprained area (to absurd *bad* blood and toxins).

5. Lamkung

Scientific name: *Plantago major* L.

Parts used: Leaves

Ailments treated: Bladder problem (stone)

Method of usage: The leaves are boiled to make stock and then consumed (drink).

6. Akva shaemae

Scientific name: *Carica papaya* L.

Parts used: Leaves, roots and seeds

Ailments treated: Liver problem, bladder stone and intestinal worm

Method of usage: Seeds are crushed. Mix with warm milk and drink daily to treat intestinal worms. ii. Fresh leaves are grinded and squeezed to extract the sap. Two tablespoon of the extracted sap is consumed everyday (morning and evening) on empty stomach. It treats fatty liver, liver cirrhosis and ulcers. It is also used for enhancing one's complexion. If fresh leaves are not available, dried leaves can also be used. iii. The roots are boiled. The product stock is drink everyday (morning and evening) to treat stone cases (kidney and bladder).

7. Achehchehmahdeh (Ningjakivaeh/Izuwrpekpek)

Scientific name: *Mimosa pudica* L.

Parts used: Whole plant

Ailments treated: Stones and menstruation problems

Method of usage:

1. The plant roots are boiled in water to prepare a concentrated stock which is consumed to treat stone cases (kidney and bladder)
2. The whole plant is boiled to prepare stock and consumed to treat irregular menstruation and menstruation cramps.

8. Meeh/Naachang (Banana)

Scientific name: *Musa acuminata* Colla

Parts used: Stem sap

Ailments treated: Food poisoning (stomach pain)

Method of usage: Drinking of fresh stem sap.

9. Kaanja

Scientific name: *Cannabis sativa* L.

Parts used: Leaves

Ailments treated: Diarrhoea and dysentery

Method of usage: Liquid extracted from grinded leaves is consumed. The leaves can also be consumed raw, boiled, as salad or fried with pea flour.

10. Panghaentuur

Scientific name: *Psidium guajava* L.

Parts used: Leaves

Ailments treated: Stomach ache and dysentery

Method of usage: Liquid extracted from grinded leaves is consumed.

11. Haenoh/Haerihh (Mango)

Scientific name: *Mangifera indica* L.

Parts used: Barks and leaves

Ailments treated: Stomach ache and dysentery

Method of usage: Liquid extracted from grinded leaves is consumed.

12. Khomae

Scientific name: *Rhus chinensis* Mill.

Parts used: Fruit

Ailments treated: Stomach ache, indigestion and gastric.

Method of usage: The fruits (dried) are boiled in water; the extracted stock is consumed as beverage after meals.

13. Ifhuwr (lawn grass)

Scientific name: *Cynodon dactylon* (L.) Pers.

Parts used: Leaves

Ailments treated: Indigestion and intestinal worm infection

Method of usage: The grass is washed clean and eaten raw. It is also boiled and the resulting stock is consumed.

14. Shaeruw

Scientific name: *Phyllanthus emblica* L.

Parts used: Fruits

Ailments treated: Indigestion and gastric

Method of usage: Fruit is boiled in water and the liquid stock is consumed. Pinch of salt, sugar and drops of honey may be added.

15. Rumaethii

Scientific name: *Ananas comosus* (L.) Merr.

Parts used: Leaves

Ailments treated: Stomach ache, indigestion and whooping cough

Method of usage: Fresh leaf is grinded to extract the thick green liquid which is consumed (drink). A drop of honey may also be added.

16. Paarchiip

Scientific name: *Phlogacanthus thysiformis* Nees.

Parts used: Leaves and flowers

Ailments treated: Cough, Common cold, sore throat, scabies and joint pains.

Method of usage:

1. Boiled in water to make bitter stock to drink.
2. The boiled leaf (soft) is made into rough paste to smear on scabic skin.
3. Roasted/boiled leaves are wrapped in warm cloth and gently pressed over the body (to absorb toxins and accumulating fluid) to relieve the body of pains.
4. The leaves are boiled in water and the issuing steam/vapour is inhaled to treat common cold and other viral infections.

17. Parchiip Ivaar

Scientific name: *Justica adhatoda* L.

Parts used: Leaves and flowers

Ailments treated: Cough and joint pains

Method of usage:

1. Boiled in water to make bitter stock to drink.
2. Roasted/boiled leaves are wrapped in warm cloth and gently pressed over the body (to absorb toxins and accumulating fluid) to relieve the body of pains.
3. The leaves are boiled in water and the issuing steam/vapour is inhaled to treat common cold and other viral infections.

18. Lampaa Paarchiip

Scientific name: *Phlogacanthus curviflorus* (Wall.) Nees.

Parts used: Cough, fever and joint pains

Ailments treated: Cough/flu and joint pains

Method of usage:

1. Boiled in water to make bitter stock to drink.
2. Roasted/boiled leaves are wrapped in warm cloth and

gently pressed over the body (to absorb toxins and accumulating fluid) to relieve the body of pains.

- The leaves are boiled in water and the issuing steam/vapour is inhaled to treat common cold and other viral infections.

19. Laangthrii

Scientific name: *Blumea balsamifera* (L.) DC.

Parts used: Leaves

Ailments treated: Stomach ache, known as *ruwnam*, (as a result of food poisoning or excessive consumption of chilli) and stomach ache from drinking alcohol

Method of usage: Leaves (in odd numbers) are chewed and swallowed, followed by drinking a glass of water.

20. Siing

Scientific name: *Zingiber officinale* Roscoe

Parts used: Leaves and rhizome

Ailments treated: Common cold, sore throat

Method of usage:

- The rhizome is chewed/eaten
- It is also boiled together with *Phlogacanthus thysiformis* to make a bitter stock to drink or the vapour is inhaled.

21. Lampaa siing (same as ginger, but smaller in size; found wild)

Scientific name: *Zingiber officinale* Roscoe

Parts used: Rhizome

Ailments treated: Common cold and sore throat

Method of usage:

- The rhizome is chewed/eaten
- It is also boiled together with *Phlogacanthus thysiformis* to make a bitter stock to drink or the vapour is inhaled.

22. Lamsiing

Scientific name: *Zingiber montanum* (J. König) Link ex A. Dietr.

Parts used: Rhizome

Ailments treated: Common cold and sore throat

Method of usage:

- The rhizome is chewed/eaten
- It is also boiled together with *Phlogacanthus thysiformis* to make a bitter stock to drink or the vapour is inhaled.

23. Siingkha

Scientific name: *Zingiber zerumbet* (L.) Roscoe ex Sm.

Parts used: Rhizome

Ailments treated: Common cold and food poisoning (*ruwnam*)

Method of usage:

- The rhizome is chewed/eaten
- It is also boiled together with *Phlogacanthus thysiformis* to make a bitter stock to drink or the vapour is inhaled.

24. Aereeh (Jinghaang)

Scientific name: *Curcuma longa* L.

Parts used: Rhizome (fresh, dry and powdered)

Ailments treated: Stomach ache (*ruwnam* or from eating chilli) burns and cuts

Method of usage

- It is eaten raw (for immediate relief from intense stomach ache)
- Paste made of dried rhizome or powder is applied on burns and cuts
- Powder is mixed with warm water for drinking

25. Jinghaang yndup

Scientific name: *Curcuma caesia* Roxb.

Parts used: Rhizome

Ailments treated: Stomach ache (*ruwnam*)

Method of usage: Fresh/dried rhizome is grounded to a paste and mixed with warm water for drinking.

26. Chuhae

Scientific name: *Curcuma amada* Roxb.

Parts used: Rhizome

Ailments treated: Urine problems (irregular bladder) and stomach ache

Method of usage: A piece of the rhizome is eaten raw (fresh) every day. It is also eaten as first aid in event of stomach ache (due to over consumption of chilli in meals)

27. Chaekho

Scientific name: *Alpinia galangal* (L.) Willd.

Parts used: Rhizome

Ailments treated: Haemorrhoids

Method of usage: The rhizome is pounded and squeezed to extract concentrated sap (liquid). Drink the liquid every morning in empty stomach.

28. Bunglamsiing (Ching pulei)

Scientific name: *Alpinia officinarum* H.

Parts used: Rhizome

Ailments treated: Mouth odour

Method of usage: Dried rhizome is chewed to mask oral odour as mouth freshner

29. Rikniing

Scientific name: *Perilla frutescens* (L.) Britton

Parts used: Leaves

Ailments treated: Cold, sore throat

Method of usage: The leaves are either chewed raw or added into boiling water for drinking.

30. Akva Rikniing

Scientific name: *Ocimum^x africanum* Lour.

Parts used: Leaves

Ailments treated: Cold and sore throat

Method of usage: The leaves are either chewed raw or added into boiling water for drinking.

31. Bathuwng

Scientific name: *Alocasia macrorrhizos* (L.) G. Don.

Parts used: Fleshy petiole and leaves

Ailments treated: Joint pains and sprains

Method of usage: The plant is crushed and then mixed with charcoal to prepare a thick rough paste. The sprain part of the leg/arm is wrapped with the mixture and left for few days.

32. Vaak tumder

Scientific name: *Oroxylum indicum* (L.) Benth. Ex Kurz

Parts used: Fruit, bark and leaves

Ailments treated: Tooth ache

Method of usage: A paste made from the leaves/bark/fruit is put on the affected tooth (cavity and roots) everyday. Juice extracted from the leaves is also put into the teeth cavity. The mouth is also gargled with the leaf juice daily.

33. Toma rii

Scientific name: *Tagetes erecta* L.

Parts used: Leaves

Ailments treated: Skin allergy (itching) from exposure to hairy caterpillars and to ward off mosquitoes

Method of usage: Leaves are crushed/rolled to rough paste and applied on exposed skin (to ward off mosquitoes) and on allergic spots (to reduce itching and infections) from touching hairy caterpillars

34. Naga runoh

Scientific name: *Mikania cordata* (Burm.f.) B.L. Rob.

Parts used: Leaves

Ailments treated: Cuts, bruises, scabies and joint pains

Method of usage: i. Fresh leaves are crushed/grinded to make a paste which is smeared on the injured skin to stop bleeding, infection and cure. ii) The leaves are warmed by hot charcoal, wrapped in cotton cloth and pressed gently over the joints to relieve of the pain.

35. Jaerii

Scientific name: *Milletia pachycarpa* Benth.

Parts used: Leaves and stem

Ailments treated: Scabies and lice infestation (humans and animals)

Method of usage: The leaves and stem are beaten to pulp and it is applied on the infected skin. To treat head/body lice infestation, the pulp is boiled with water and used for washing hair.

36. Jerhing

Scientific name: *Cinnamomum zelyanicum* Breyn.

Parts used: Bark

Ailments treated: Mouth odour

Method of usage: The bark is chewed regularly to mask/treat foul mouth odour and to also clean teeth.

37. Phuphae

Scientific name: *Persicaria odorata* (Lour.) Soják

Parts used: Leaves

Ailments treated: High blood pressure

Method of usage: Fresh leaves is crushed and kept under the nostril to inhale (as first aid during events of sudden high blood pressure); also consumed regularly raw to reduce/check blood pressure. Not recommended for individuals with low blood pressure.

38. Shinii

Scientific name: *Zanthoxylum armatum* DC.

Parts used: Leaves and seeds

Ailments treated: Common cold, cough

Method of usage: The seeds are dry fried, crushed and mixed with water to drink regularly. Steam from boiling the mixture is also inhaled.

39. Rumi

Scientific name: *Syzygium cumini* (L.) Skeels.

Parts used: Seeds

Ailments treated: Administered to diabetic individuals

Method of usage: The seed is crushed to make powder, mixed with water and consumed.

40. Tuungnu

Scientific name: *Crassocephalum crepidioides* (Benth.) S.Moore.

Parts used: Leaves and stem

Ailments treated: Gastric and mouth ulcers

Method of usage: The whole plant can be consumed raw (fresh), boiled or steamed. It cleanses the stomach of impurities.

41. Ithiimrii (Doctor rii)

Scientific name: *Catharanthus roseus* (L.) G.Don

Parts used: Leaves

Ailments treated: Dysentery

Method of usage: Fresh leaves are chewed. Paste made from the leaves can also be consumed. Drinking warm water is also recommended after ingestion of the product.

42. Jaangkim

Scientific name: *Cissus adnata* Roxb.

Parts used: Leaves

Ailments treated: Boils

Method of usage: Leaves are heated on hot charcoal, cooled and pasted on the boil sore. The method is repeated till the boil is ready to be pressed. It stops further infection and quickens the time for the boil to be ripe.

43. Vuwteehna

Scientific name: *Paederia foetida* L.

Parts used: Whole plant

Ailments treated: Haemorrhoids

Method of usage: The leaves are boiled in water. Drink the issuing stock (that smells of human refuse) everyday.

44. Fuwr mangkar

Scientific name: *Drymaria cordota* (L.)

Parts used: Whole plant

Ailments treated: Headache and fever

Method of usage: The plant is boiled in water to make concentrated stock. Drink the liquid stock regularly along with drinking lots of warm water at regular intervals.

45. April rii (April lily)

Scientific name: *Hippeastrum reginae* (L.) Herb.

Parts used: Leaves

Ailments treated: Burns/Inflammation of skin

Method of usage: The epidermis of the leaf is removed; the exposed slimy part of the leaf is then gently pasted on the inflamed skin (quickens the healing process and stops infection)

46. Phurva (orchid)

Scientific name: *Dendrobium infudibulum* Lindl.

Parts used: Fleshy stem

Ailments treated: Cracked heel

Method of usage: The fleshy inside of the stem is applied on cracked heels (to heal or to stop further infection)

47. Thuungfhuwynla

Scientific name: *Sapindus mukorossi* L.

Parts used: Fruit (fleshy hull)

Ailments treated: Dandruff, dry hair and hairfall
 Method of usage: The hull is crushed to pulp and mixed with water; used for washing hair. It can also be used for bathing and washing face.

48. Ruw (Bamboo)

Scientific name: *Bambusoideae* Luerss.
 Parts used: Young tender foliage
 Ailments treated: Bee sting
 Method of usage: The tender fleshy foliage is pasted over the stung swollen skin and left overnight.

49. Changnaeh

Scientific name: *Garcinia pedunculata* Roxb. Ex Buch.-Ham.
 Parts used: Fruit
 Ailments treated: Injuries and sores
 Method of usage: The fruit is made into a paste and pasted over the injured area in order to absorb accumulated rotten blood.

50. Shanggarai

Scientific name: *Pogostemon parviflorus* Benth.
 Parts used: Leaves
 Ailments treated: Headache, hairfall and dandruff
 Method of usage: Leaves are boiled with fermented starchy rice water. Used for washing hair for cooling sensation, treat dandruff and hair fall. Soap seeds may be added to the mixture during boiling, to make the product more effective.

51. Hibiscus/China rose

Scientific name: *Hibiscus rosa-sinensis* L.
 Parts used: Leaves
 Ailments treated: Kidney/bladder problems (blood in urine)
 Method of usage: Leaves are soaked in water overnight; drink every morning for days.

52. Nungsii

Scientific name: *Prunus persica* (L.) Batsch
 Parts used: Leaves
 Ailments treated: Scabies and ring worm infections
 Method of usage: The leaves are crushed to make a thick paste and applied on the infected skin.

53. Taettoo

Scientific name: *Spondias pinnata* (L.f.) Kurz
 Parts used: Leaves
 Ailments treated: Dandruff and Hair fall
 Method of usage: Leaves are crushed and boiled; the water is used for washing hair.

54. Aephur (Garlic)

Scientific name: *Allium sativum* L.

Parts used: Bulb/Cloves

Ailments treated: Cold and cough
 Method of usage: The cloves are crushed, fried in mustard oil and eaten. The residue oil is applied on forehead and neck.

55. Mashar sham aethuw

Scientific name: *Allium chinense* G.Don.
 Parts used: Whole plant
 Ailments treated: Low blood pressure
 Method of usage: Eat the plant (whole or as salad) daily for two weeks or till the blood pressure improves.

56. Buwsuwmore

Scientific name: *Eryngium foetidum* L.
 Parts used: Leaves
 Ailments treated: High blood pressure
 Method of usage: The leaves are crushed into rough paste for deep sniffing and ii. Smearing all over the body

57. Kochareh

Scientific name: *Phaseolus lunatus* L.
 Parts used: Leaves
 Ailments treated: Headache and fever
 Method of usage: The leaves are grinded to extract the juice which is applied on forehead to ease headache and fever.

58. Lamkuur kaestor (castor)

Scientific name: *Ricinus communis* L.
 Parts used: Roots
 Ailments treated: Tooth ache (especially wisdom teeth)
 Method of usage: The plant roots are crushed to paste and put on the affected tooth (roots and cavities)

59. Siim-jaen pengkum

Scientific name: *Brugmansia suaveolens* (Humb. & Bonpl. Ex. Willd.) Bercht. & J. Presl.
 Parts used: Leaves
 Ailments treated: Joint and body aches
 Method of usage: Steamed leaves are wrapped in cotton cloth and gently pressed over the body, to relieve of the ache/absorb toxins etc.

60. Lamkuur fhuwr

Scientific name: *Scoparia dulcis* L.
 Parts used: Whole plant
 Ailments treated: Stones (kidney and bladder)
 Method of usage: The whole plant is boiled in water. Drink the water (stock) every day. Regular drinking of water is also recommended.

Table 1: Medicinal plants without botanical names are as follows.

Sl no	Local Name of the plant (in Moyon)	Part(s) used	Ailments to treat	Method of usage
1	Shakhiinaesuwmm (Fig 2)	Leaves	Skin infection, chicken pox and measles	The leaves are boiled in a big pot. The water is used for washing/bathing. It stops spread of infection and quickens the recovery process.
2	Ruuum (<i>Albizia sp.</i>) (Fig 3)	Bark	Dandruff, dry hair and itching head	The fresh bark is beaten to pulp, mixed with water and rubbed to produce froth. It is used for washing scalp and hair.
3	Bruwr thingna (Fig 4)	Whole plant	Body ache and joint pains	The whole plant is boiled in water. It is used for washing body or bathing. The leftover leaf residue in the pot is then wrapped in cotton cloth and gently pressed over the body.

4	Enkha (Fig 5)	Leaves	High blood pressure	Eaten raw/roasted/steamed Every day to lower blood pressure
5	Kum kruk rii (Blooms only once in six years) (Fig 6)	The whole plant. Especially the flower	Body and joint aches	The plant parts are boiled with water. The water is used for bathing. It is highly recommended for sick individuals with complains of body and joint aches
6	Shamchiibuw (Fig 7)	Leaves	Hairfall and dry hair	Boil the leaves with fermented starchy rice water. Use the water for washing hair.



Fig 2: Shakhiinaesuw



Fig 3: Ruhuum



Fig 4: Bruwr Thingna



Fig 5: Enkha



Fig 6: Kum ruk rii



Fig 7: Shamchiibuw

Conclusion

The study identified 66 plants used by the Moyon tribe to treat various ailments. Among the ailments treated, the most common ones are-cold (11), cough (6), dysentery (4), stomach ache (10), body ache (5), joint pains/ache (5), cuts/bruises (3), kidney/bladder problem (stone cases) ((5), liver problems (1), blood pressure (4) and dermatological

problems like ringworm, boils, dandruff and dry scalp (14). Other ailments include haemorrhoids (2), chicken pox (known as *siishaang*) (1), dental-oral problems (5), lice infestations (1), intestinal worms (2) and menstrual problems (2).

In addition of the mentioned plants, there are also other herbs and plant based products speculated to treat diseases like cancer and tuberculosis. They are not included in the article as the efficacy of these plants and their therapeutic potentials are merely speculations and personal opinions, as well as to avoid wrongful/speculative folk remedies which might be harmful if not deceiving to patients. Other common plant excluded in the study is *mangke* (Tamarind) seeds used for treating snake bite; it is excluded because of the dangers of snake bite and cases of individuals with adverse health effects for delaying anti-venom injections because of reliance on folk remedies/superstitions.

Of the identified plants, Lamsiing (*Zingiber montanum*) is becoming rare due to overharvesting (commercial exploitation) and destruction of the habitat. Other plants like Chuwram (*Ageratum conyzoides*), Ipaennabuw (*Anredera cordifolia*), Naathurii (*Impatiens balsamina*), Achehchehmahdeh (*Mimosa pudica*), Ifhuwr (*Cynodon dactylon*), Bathuwng (*Alocasia macrorrhizos*), Naga runoh (*Mikania cordata*), Fhuwr mangkar (*Drymaria cordata*) and Lamkuur fhuwr (*Scoparia dulcis*) are considered noxious weed; thus, their useful medicinal/therapeutic properties are often overlooked.

Of the plants without scientific names, shakhiinaesuw, enkha and shamchiibuw are considered wild weed though they are not very common. Ruhuum (*Albizia* sp.) is a huge tall tree similar to *Albizia chinensis*, but their difference is that *Albizia chinensis* (also known as Rupho) is known for ichthyotoxic properties (Moyon and Singh 2017:31) whereas Ruhuum is known for its medicinal properties (hair washing) and also used for making mortar. Young Ruhuum trees are considered weed and the old trees are also not desirable as they are prone to breakage and easy to catch fire. Kum krulk rii blooms once in six years; it is found mostly in forest at altitude of about 1000 m asl. The last time it blooms was in January 2020.

The Moyons make good use of locally available plants exploiting their medicinal properties to treat everyday ailments. Unfortunately, such traditional folk remedies are being forgotten and knowledge on plants and their uses are also being forgotten by many. Even though modern and scientific medicines and treatments are available, the community's dependence on traditional treatments signifies the importance of such folk medicinal knowledge. Villages located in remote areas are specially dependant on these local folk remedies because they cannot access modern medicines and health on time due to bad means of transport. However, it is also unfortunate to note that some of the medicinal plants are over exploited (due to commercial demands) and for local consumption (as food), apart from habitat destruction via deforestation. If exploitation, habitat destruction and traditional knowledge are not monitored properly, there is a chance that such folk medicines and remedies among the Moyon tribe and other tribal communities will face existential-sustainable challenges.

Acknowledgement

The authors extend their appreciation to the Moyon elders and individuals for their valuable information on plants and

their usages on treatment of identified ailments as well as for the community supports during the study.

Conflict of interest

No potential conflict of interest was reported by the authors.

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