



MONPA MEDICINAL PLANTS:

*Indigenous Knowledge
from a Himalayan Healer*

WRITTEN BY DAWN A. MURRAY, PH.D.

with source information from Ap Tawla

ILLUSTRATIONS BY HOLLY SHERWIN

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Q-Repography11001Changlam, Thimphu, Bhutan.



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FORWARD

BY SEETA GIRI, PHD

The Monpas are invisible jewels of Bhutan. They hold tremendous Indigenous wisdom on their ecosystem, plant life and natural resources that are utilized to sustain their everyday life. This book, *“Monpa Medical Plants, Indigenous Knowledge from a Himalayan Healer”* captures the Monpa people's deep knowledge of the medicinal plants that thrive around their environment and their traditional healing practices. This is among the many features that demonstrate Monpa people's wisdom and resilience, having lived in isolation for generations away from the mainstream development.

I had my first interaction with the Monpas from Jangbi, Wangling and Phumzur villages back in 1999, two decades ago. Since then, I have remained engaged with this community, learning from them, documenting their stories and Indigenous wisdom that has enabled them to live in harmony with the nature, conserving the rich biodiversity at the same time relying on the natural resources that the local environment offers.

This timely contribution of the Tribal Trust Fund, in supporting Dr. Dawn Murray and others involved in bringing together this important piece of knowledge, will have a significant bearing in keeping alive the passion and traditional knowledge of the Monpa people.



INTRODUCTION

The First People of Bhutan, the Monpa, have subsisted for thousands of years in the Black Mountains using traditional plant medicine. The Monpa live in several diverse biomes within Jigme Singye Wangchuck National Park, a biodiversity hotspot, with some of the richest temperate forests in the Himalayas. The park covers an area of over 1,700 km² ranging from broadleaf forests at 250 meters to coniferous forests, alpine pasture and lakes, to permanent ice on the peak of Jou Dorshingla at 4,925 m (RSPN, 2020). According to the Royal Society for the Protection of Nature: “the park constitutes the largest, richest and most intact temperate forest reserve in the entire Himalaya. More than 270 species of birds are recorded in the park, including the vulnerable black-necked crane (*Grus nigricollis*)”, the rufous-necked hornbill, the Himalayan Monal (blue pheasant) and 50% of the population of the critically endangered white-bellied heron. The mammals within the park include the Royal Bengal tiger, golden langur, musk deer, clouded leopard, golden cat, marbled cat, red panda, and gaur.

Rapid assimilation is threatening this ancient culture. The Monpa are the original Indigenous people of Bhutan and continue to live in harmony with nature, as reflected in their traditional attire. Forty years ago, the Monpa wore paggay, nettle plant fiber cloth they would weave. Many Monpa cultural traditions have slowly been replaced– now Monpa wear the national dress of the gho and kira, worn by all communities in Bhutan. The school is teaching children English and Dzongkha, the latter being the national language of the Kingdom of Bhutan. In 2002, a Basic Health Unit was established in Jangbi that extends services to the Monpa villages (Giri, 2004). Dasho Dorji, a Monpa shaman, requested support for cultural preservation. In response, the Tribal Trust Foundation provided funding for building a heritage museum on their land, recording their language, starting a pilot project to domesticate herbs the Monpa's traditional healer use, and reviving the cultural tradition of weaving nettlecloth.

Minimizing reliance on outside resources and providing local solutions to health issues where access to medical help is limited, builds community resilience. Our model for supporting Indigenous cultures involves analyzing the strengths, weaknesses, opportunities and threats to their way of life (Murray et al, 2012). Capacity building fosters a sense of ownership and empowerment, so that Indigenous peoples gain greater control over their own future development. Representatives from the Tribal Trust Foundation, Tarayana Foundation, National Biodiversity Center, National Herbarium, the Royal Government of Bhutan, Dr. Seeta Giri, and numerous translators have come together to honor, appreciate and celebrate Monpa ecological knowledge and cultural traditions, promoting their Indigenous way of living in harmony with nature and each other.

Our intention for this book is to document plant knowledge as a participatory conservation model collaborating with non-profits, for-profits, and government organizations in Bhutan to record the traditional plants used medicinally and build capacity for the Monpa community. Monpas dwell in remote areas within the high Himalayan forests where they developed a unique and expansive knowledge of medicinal plants over thousands of years. The world has much to learn from this Indigenous culture – their ancient traditions and wisdom. Time is of the essence to record the medicinal plant and biodiversity knowledge of the Monpa people, especially Ap Tawla, their respected elder healer. Documenting traditional medicinal plant information that saves lives and reduces pain and suffering is vital for all future generations.

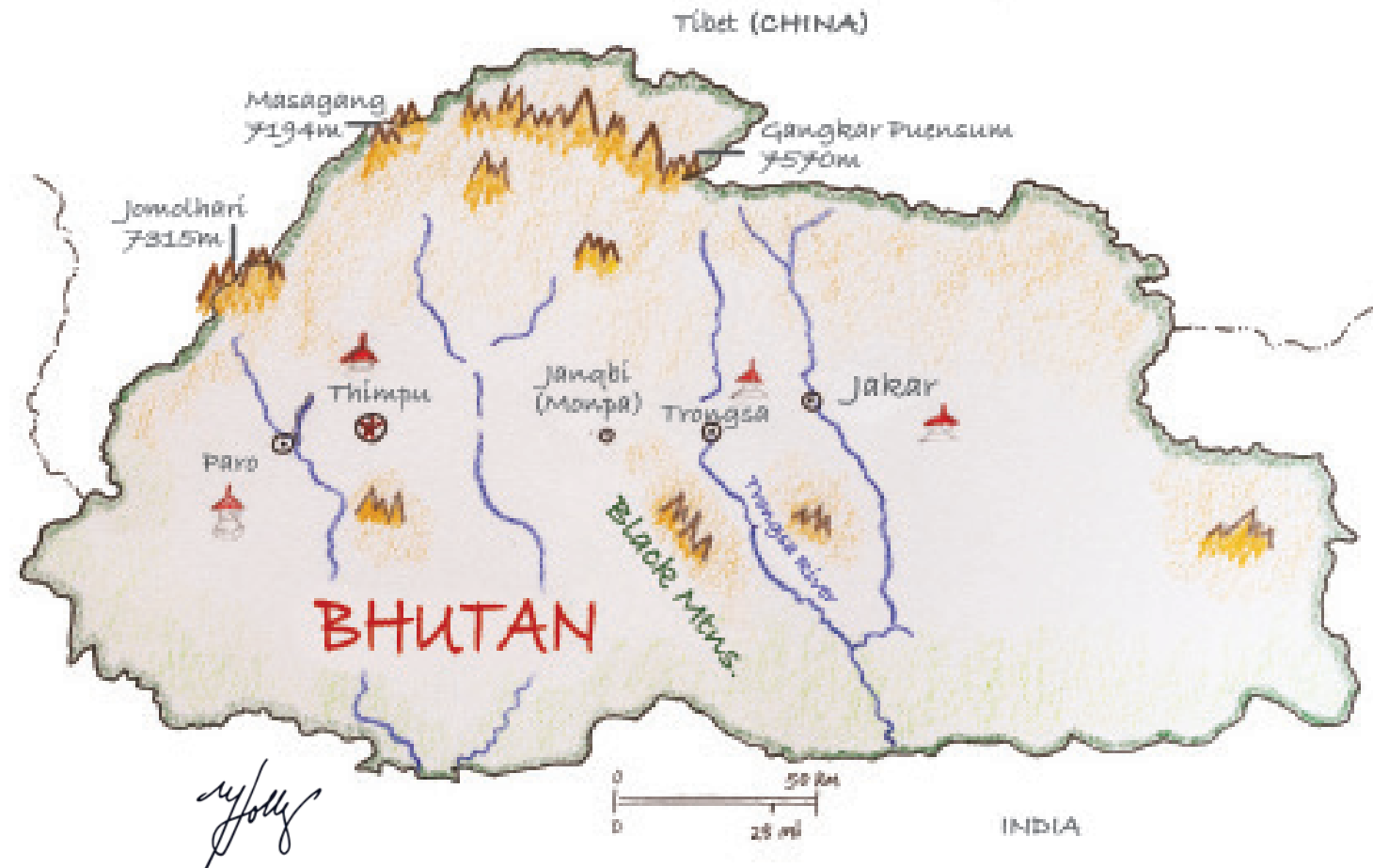
This book introduces you to the sacred and sustainable Monpa culture. This book is not intended to be used as a resource to create the medicines from the plants in Monpaland but to describe the intimate relationships with the plants and knowledge of the local healer, Ap Tawla.



BHUTAN

Bhutan is a remote Mahayana Buddhist kingdom where age-old traditions hold strong. The Bhutanese practice is a mix of the historical teachings of the Buddha and Bon animistic beliefs, based fundamentally on protecting nature and instilling a deep respect for the environment, including mountains, rivers, rocks, lakes, and Earth's creatures (Giri, 2004). The Monpa predate the arrival of Buddhism in Bhutan as they are the original people of Bhutan. The Bhutanese, like the Monpa, show great reverence and respect for nature in their celebrations, traditions, and beliefs. Bhutan was closed to outside visitors for most of its history and it was only in 1974 that Bhutan opened for tourism with an airport and air services available ten years later (Wangchuck, 2018). As a small Himalayan country located between the two most populous countries, India and China, still having a disputed boundary with China in the north, Bhutan's total population hovers around 770,000 people. Arched by the astounding peaks of the Himalaya, Gangkhar Puensum is the highest point in Bhutan (7,600m) and the highest unclimbed mountain in the world (Wangchuck, 2018). Bhutanese do not believe in climbing their tall peaks – they leave them undisturbed and ecologically pristine so as not to disturb Deities and the ecology. Bhutan is also referred to as Druk Yul, or the Land of the Thunder Dragon. Bhutanese are honored by their rich history and have a strong national identity.

The progress to economic growth and economic self-reliance is growing in Bhutan with their sustainable farming practices. More important in Bhutan than having too much – overconsumption and overproduction – is the practice of working toward Gross National Happiness (GNH). The government and people believe in the importance of Gross National Happiness and environmental stewardship. GNH is based on the notion that material wealth alone does not provide happiness or well-being and that economic growth should not be achieved at the expense of the people or the environment. GNH promotes people and the environment – health, culture, conservation and preservation (Wangchuck, 2018). Bhutan is the first country in the world with specific constitutional obligations to protect the environment. Among its requirements: at least 60% of the nation must remain under forest cover at all times (Wangchuck, 2018).





THE MONPAS

Monpas have lived for thousands of years in the Black Mountains, a biodiversity hotspot, with some of the richest temperate forests in the Himalayas. They are decedents of survivors of the last ice age, when people in the Himalayas lived in the mountain caves to survive the cold (Giri, pers. comm., 2019). The Black Mountains are made of huge black boulders exposing an early Paleozoic succession of Tethyan sequence, forming moist, humid forests in rugged and remote terrain; indeed, the Monpas are sometimes referred to as the entrance keepers of a hidden country as the geology of the area is so impenetrable (Chand, 2009).

Until recent history, Monpas were hunter-gatherers. The forest is their home and their livelihood depends on the bounty of nature. A close-knit people, Monpas live in small bamboo huts or larger traditional mud homes, cooking with fire. They have a rich culture highlighted by their unique weaving, ceramics, agriculture, food processing, songs, and dance. The Monpa have a wealth of traditional knowledge which is passed from generation to generation through verbal teachings and stories. Their lives are linked to the biodiversity in the forests around them. As skilled hunters who value their art, they pass on their expertise in trap setting to future generations. Their diet has depended on locally available food items that they find in the forest. In addition, they grow maize, rice, and numerous vegetables, including pumpkin and radish.

For the origin of the word Monpa, in the Tibetan scriptures, Mon was the land in the south - the land of medicinal plants. Tibetans used Mon to refer to people who knew medicinal plant medicine (Giri, pers. comm., 2019), as well as any un-Buddhist people (Chand, 2009). In addition, Monpa, 'mon' references darkness and 'pa' means people, and there have been indications of them referring to themselves as the people of darkness (Giri,

pers. comm., 2019; The Tribal Trust Foundation video interview, 2014). This could refer to the forest areas of their lands being dense and the rock formations being dark. Furthermore, in their origin story, as shared by Karma Ura and Seeta Giri, and interviews with the Monpa, mythically there were three lineages of the Mon race and from them came nine brothers of sun with incredible heat to burn everything. Only a few survived a huge rainstorm that came in the hollow of a tree, one flew away and then there was one survivor. He planted land and saw a plot that was being burned for use. It was a mystery who was burning the land and sowing the seeds so he hid and watched many fairies come down and work the soil. He caught one whose wings were trapped on a tree, removed her wings, hid them and married her. They had two children and years later, when the woman found her wings, she flew away to heaven. The father went looking for her but did not survive. The children were left with a hunting dog and met with three relatives and the Monpa are the descendants of God's family. There are varied and complex versions from books and interviews with the Monpa, but that is a brief summary of their origin story (Giri, 2004).

Religious beliefs and practices of the Monpa people uniquely blend shamanism, Bonism and Buddhism. Monpa believe rocks, trees and mountains are domains of local deities and they show their respect by offering incense to the deities. When the government was mapping the forest resources in the Monpa areas, many sacred groves were identified. It is considered taboo to cut sacred trees because it is believed that if you disturb these areas, the people will suffer illness and misfortune. For example, one does not climb the tallest peaks but leaves them in peace with the deities. Certain trees are culturally valued and linked with legends that encourage protection of the trees, even in cultivated land, to increase soil fertility.



AP TAWLA, A LIVING TREASURE

Ap Tawla is a man to be admired not just for his tremendous healing ability and medicinal plant knowledge, but also for his generosity of spirit. He passionately shares his wisdom. Ap Tawla's knowledge is a zenith of information shared over thousands of years by Monpa traditional hunter and gatherers, who found roots and shoots in the forest and hunted animals in the mountains. This knowledge kept them alive and kept their culture alive.

Ap Tawla has risked his life for others and is committed to passing on his skills to the next generation. Ap Tawla is now in his early 80s and remains the most respected Monpa natural healer. At Ap Tawla's request, we interviewed and filmed him both in Monpaland and in the capital of Bhutan, Thimphu, where students of plant medicines could learn from him. The attention he received inspired several young people to become his apprentices and follow in his footsteps. Once, he pointed to his knees and proclaimed 'I am dead up to here. I want people to know what I know and learn from me about the plants the Monpa use to heal.' This book will ensure his legacy.

When sick, most Monpa consult a shaman and seek Ap Tawla's expertise. They prefer the local healer to visiting the Basic Health Unit, which offers Western medicine but is a few hours walk from Monpa households of Wangling and Phumzur. The two types of traditional healing systems in the villages – healing with rituals and healings without rituals – are most effective when combined. Ritual practices include readings from religious books, praying for good health, food or drink. The practices are often supported by shamans or lamas communicating prayers. Healing practices without rituals include the use of medicinal plants.

The first step in his practice was beginning to treat broken limbs of animals and mastering that before he started healing people in his village. He then expanded his range to nearby villages using his traditional healing methods. It was an old shaman, Bhura, who was a father figure to him, and taught Ap Tawla how to cure snake bites. It was believed that shaman Bhura would cast a spell on the snake using black magic. Ap Tawla, being a pure Buddhist and a religious man, refused to learn about black magic and spells. He focused on how to safely sucking toxin from the wound using a small round chili (dorlokhorsani) without any associated rituals. He would also similarly treat blood impurities. In addition, Ap Tawla treats patients using medicinal plants and massage therapy. He also has the knowledge to heal mushroom poisoning and animal/livestock injuries.



AP TAWLA'S PLANT KNOWLEDGE

Indigenous elders feel a responsibility to pass on their way of life and knowledge. Ap Tawla honors his teachers with his dedication to do the same. ApTawla's training was influenced over many years by many different teachers. When he was young, he was taught by the previous local healer, Ap Upla. An excellent student, Ap Tawla learned the structure of nerves and bones in the legs, arms and eventually the entire bodies of humans and animals. His specialty became treating broken limbs. Ap Tawla learned about healing broken hands, fingers and the more complex neck vertebra from a traditional medical doctor, Kunzang Sangay. When Ap Tawla was sixteen years old, Dr. Sangay taught him about the medicinal plant tapsing (drawing included) which is used to reduce pain when treating broken limbs and severe injuries. Ap Tawla was also taught by the traditional medical doctors Phuntsho Wangdi and Singye Dorji, students of Dr. Singye Phuntsho of Kharshong Village. And later in Ghaga Village, a doctor named Tshewang taught him about approximately 100 species of medicinal plants and their individual uses. Ap Tawla began collecting plants and making medicines, perfecting the solutions.

Years and years of trial and error determined which parts of the plant could be used to treat an ailment, when to harvest the plant, how to prepare the medicine and treat the patient, the dose, and so much more – this information represents years of scientific discovery, memory, and verbal sharing. The Monpas still depend almost solely on traditional medicinal plants to treat illnesses and injuries as they are living in relative isolation. Three of the most often used plants in healings are taap sing, tsatoimen and lhasa methoseng. All medicinal plants are foraged from the wild. Changes in the plant's distributions and abundances are apparent, presumably because of development work with roads and buildings.

MONPA NAME
CHUGIDIBANEPHRO

Lepis cordifolia

This woody fern with feather-shaped fronds, grows in abundance in forests as well as wetland habitats. Although most often seen as an epiphytic plant, living in the treetops, it will also grow attached to rocky surfaces. As with most ferns, ghugidibas' main reproductive mechanism is through spores which are dispersed by wind and water. However, this species will also reproduce through stolen, tubers and rhizomes.

The juice of the marble-sized root tubers is a natural antibacterial remedy used by the Monpa for treating stomach aches and fever. The raw tubers can also be collected and consumed as a food source.



Lepis cordifolia

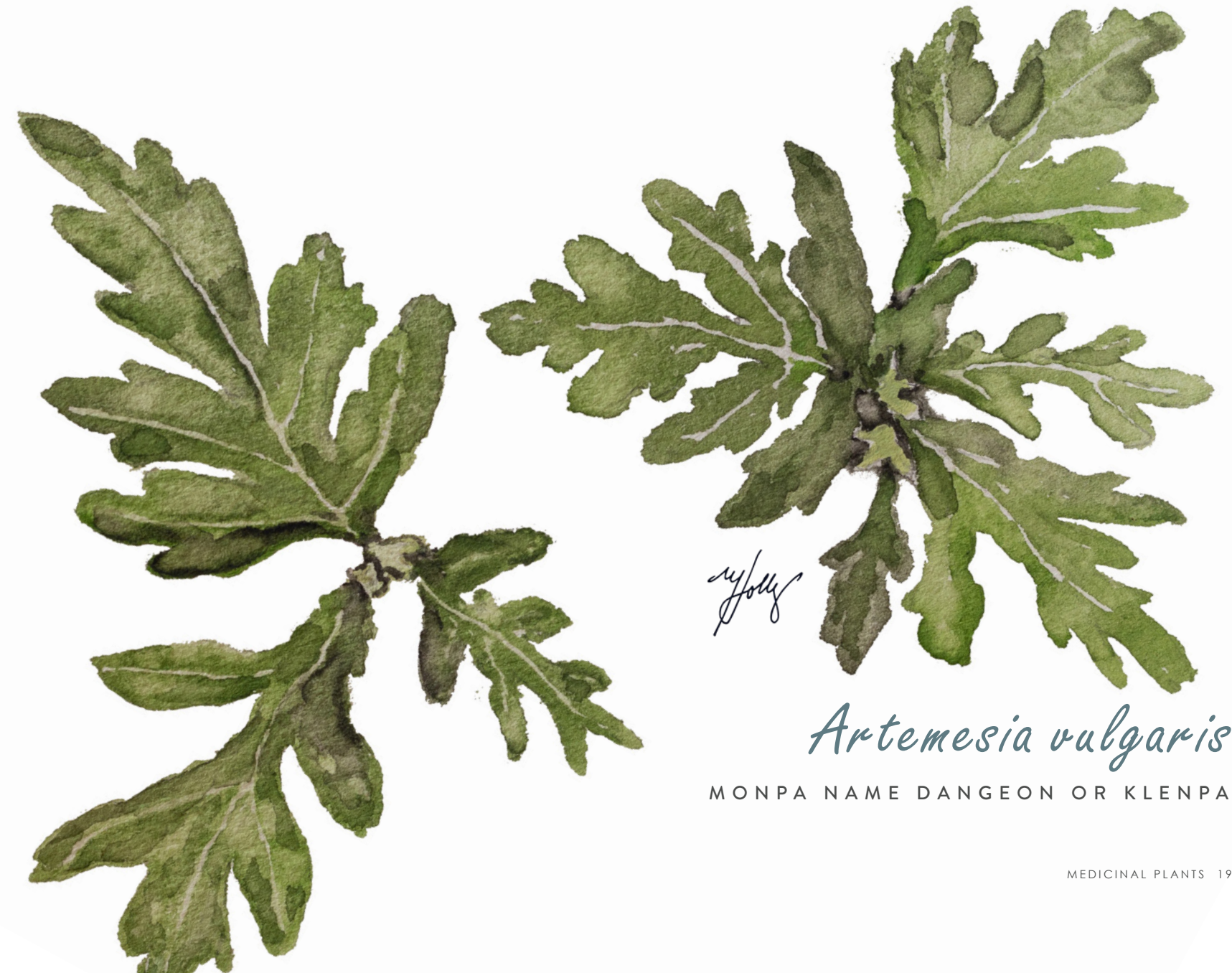
MONPA NAME CHUGIDIBANEPHRO

MONPA NAME
DANGEON OR KLENPA

Artemesia vulgaris

This sweet-smelling perennial herb can be found growing wild in all parts of Bhutan and is an especially important medicinal plant. It is very commonly found growing along roadsides and in areas that have been disturbed by development.

Often used in ceremonies worn as a wreath on the head, its small lobed leaves and tiny yellowish-green flowers that grow close to the stem are easy to harvest and weave into circular hats. The Monpas soak the leaves in boiling water for hot stone baths which aide in relaxation. They also make use of its antiseptic properties by using the leaves and sap for healing cuts and wounds.



ry/fouy

Artemesia vulgaris

MONPA NAME DANGEON OR KLENPA

MONPA NAME
BRINGGA LABI

Guettarda speciosa

One of the most beautiful of the medicinal plants of the Monpas, bringga labi, has strikingly large shiny leaves with prominent veins. The aromatic white flowers have a faint smell of gardenia, which gives way to small, globular hard fruits. The tubular flowers grow on long stalks and bloom throughout the year.

The whole plant can be used medicinally, including the leaves, stem, bark and flowers. Its many uses include treating coughs, wounds, dysentery, head aches, fever and boils. In Monpa culture the fruit is dried and used to make medicines that ease the pain of bone fractures and wounds.

Guettarda speciosa

MONPA NAME BRINGGA LABI

ry/folly



MONPA NAME
KEWA KARP

Argyreia venusta

Kewa karp is a climbing shrub found growing wild in sub-tropical forests. It's large, deeply veined leaves and showy purple flowers can cover whole embankments or entire tree trunks.

The thick, brown tuberous roots are used to treat tuberculosis and conditions of the throat.

Argyreia venusta

MONPA NAME KEWA KARP



MONPA NAME
NGAKHACHUNG

Asparagus racemosus

Ngakhachung is a species of asparagus common throughout India and Bhutan. It prefers to grow in rocky or sandy soils and can become entwined up in the branches of taller trees. Its small, needle-like leaves are thin and wispy, giving it a fern-like appearance. Ngakhachung will grow quite tall, sometimes exceeding heights of 1-2 meters.

The roots, which are easily pulled up and often eaten as a vegetable, are tender and tasty. The Monpas use them as a food source, but also medicinally to treat hematoma and for anti-aging. When dried, the creamy-white root can be ground into powder for making tinctures and other medicinal remedies.

Because of its multiple uses, its demand has been on the rise and it is now considered "endangered" in some of its natural habitat.



Asparagus racemosus

MONPA NAME NQAKHACHUNG

MONPA NAME
TAAP SENG

Fraxinus paxiana

Taap seng is a medium-size tree, which is a native to the Himalayas and can be found in the higher elevations. Its toothed yellow-green leaves grow in an opposite leaf arrangement, gracefully drooping down from short compact limbs.

The bark is boiled in water and the extract used to heal wounds. The Monpa use it for creating soothing baths for women after giving birth.



Fraxinus paxiana

MONPA NAME TAAP SENG

MONPA NAME
RUBJIL/NYEDHU

Millettia pachycarpa

This climbing perennial shrub is endemic to Southeast Asia, including Bhutan. It can grow up to 15 meters tall and is easily recognized by its twining stems and oblong legumes. Inside these dark brown pods, are the nuts which are dried and used to treat stomach ailments by the Monpa.

With over 150 plants in the family, millettia are known for producing a toxic substance that can kill or stun fish. The toxin, known as rotenone, will make a fish easy to catch while the flesh remains safe for human consumption. This poisonous concoction, made from the roots and seeds of the nyedhu plant, has also been used as an agricultural poison.



Millettia pachycarpa
MONPA NAME RUBJIL/NYEDHU

MONPA NAME
KAYAN

Cannabis sativa

This annual flowering herb, known as Kayan to the Monpas, grows everywhere in Bhutan. Although Indigenous to eastern Asia, it is now cultivated around the world. The word “sativa” means things that are cultivated.

In Bhutan, kayan can be found in abundance along roads and in fields, taking root where the soil has been disturbed. The easily recognizable seven-leaf lobes that swirl around a single stem make it easy to identify and harvest. The Monpas often feed kayan to their livestock as a calming herb. Each part of the plant is harvested differently depending on the purpose of its use. Related to hemp, the plant is used as a source of fiber, seed oil, food, religious and spiritual mood enhancer as well as medicine.

Cannabis sativa

MONPA NAME KAYAN



MONPA NAME
UNKNOWN

Yourila

Yourila has large yellow-green leaves that grow in an opposite arrangement along a long, green stem. It can be seen growing, vine-like among taller trees or in a more compact shrub form.

The bark is boiled over a period of a few days, creating a liquid extract used to treat bone fractures and wounds.



Yourila

MONPA NAME UNKNOWN

ry/fouy

MONPA NAME
PHAGPADUM

Bauhinia Variegata

Phagpadum is a flowering deciduous tree, found in warm tropical or subtropical forests. It grows to a height of 10 - 12 meters. Its large, double-lobed leaves are unmistakable as are the showy purple flowers which give it the nickname "orchid tree" in many regions where it is found.

Aside from its conspicuous flowers, the long seedpods are also quite unique. The legumes dry completely on the tree and as they mature, they begin to twist like a corkscrew until they explode open spewing its seeds into the environs.

The buds of this plant are edible, much like a vegetable. The Monpas use the bark to make a decoction used to treat piles.

Bauhinia Variegat
MONPA NAME PHAGPADUM



MONPA NAME
LANGMELA OR NAKAPINI

Bauhinia variegata

This deciduous tree has feathery compound leaves and grows to heights exceeding 40 meters. It grows in moist areas where its large seeds can be seen littering the ground. The seeds are said to resemble the lid of a spaceship as they break open.

This family of plants is sometimes called soapberry because the skin of the fruit is used as soap for shampooing and for cleaning wounds. The Monpa also use the soap to wash clothing.

Bauhinia variegata
MONPA NAME LANGMELA OR NAKAPINI



MONPA NAME
GIRMAN

Asplenium philitidis

This fern grows readily in the crotches of trees as an epiphytic plant, taking support from its host. Although mostly seen on mossy tree trunks, it can also sprout upon moist rocks in dense evergreen forests. The underside of its broad leaves is covered in brown spores, which are blown by the wind and spread throughout its forest habitat.

Because its fronds are large, sometimes exceeding 80 centimeters in length, it is used to make warm compresses that are applied to bone fractures and parts of the body to alleviate pain and inflammation.

Asplenium philitidis
MONPA NAME GIRMAN



MONPA NAME
TSATOIMEN

Plantago erosa

This herbaceous plant has rounded leaves with parallel veins that narrow towards the stem. It produces a tiny green flower spike, known as an inflorescence. The name “planta” is the Latin word for sole of foot because the leaves grow so low to the ground. Often found along roads and paths it is easy to identify and harvest.

In Monpaland the leaves are dried and made into a powder for bone fractures and to help with muscle or tissue pain. In addition, the roots are used to make a tea that relaxes and calms the nerves.

Found all over the world, there are over 200 species in this genus. Although often considered a weed, it has many medicinal properties and is known to be antimicrobial, anti-inflammatory and antihistamine. Thus, it can be used for coughs and colds, taken as a tea or tincture, or used externally as a poultice of leaves for bites, rashes and skin wounds.



Plantago erosa

MONPA NAME TSATOIMEN



Monpa Name	Scientific Name	Type of plant	Purpose/Uses	Parts of the plant used	Harvesting Period	How prepared	Domestic or Wild	Habitat
Girman	<i>Asplenium philloids</i>	Fern	Bone fracture, heat therapy to treat hand and leg fractures, pain and inflammation	Leaf	All seasons	Boil leaves and soak wrapping to bind	Wild	Grows on trees in cool, wet areas
Langmela or Nakapini	<i>Sapindus rarak</i>	Tree	Soap and shampoo	Fruit	July-Aug	Powdered fruit cover	Wild	Moist areas
Taap Seng	<i>Fraxinus paxiana</i>	Tree	Healing wounds, bathing after delivery all season	Bark	All seasons	Bark boiled and water extract used to heal wounds, after delivery women are bathed in this water	Wild	Dry areas
Bringga labi	<i>Guetarda speciosa</i>	Vine	Bone Fractures & wounds	Fruit	All seasons	Dry the fruit	Wild	Cold areas
Younla		Vine	Bone Fractures & wounds	Bark	All seasons	Intense cooking of bark for few days & extract the liquid	Wild	Cold areas
Lhasa metho seng	<i>Muraya koengii</i>	Shrub	Bone Fractures & Heart Disease	Roots	July	Dry the roots	Wild	Cold areas
Tsatoimen	<i>Plantago erosa</i>	Herb	Bone Fractures & muscle tissues. Sooth nerves, relaxant Also used as tea	Roots	All seasons	Dry leaves and powder	Wild	Warm areas
Ngakhachung	<i>Asparagus racemosus</i>	Shrub	Treat hematoma, Anti-ageing, shoot eaten as vegetable	Roots, shoots	Autumn	Powdered	Wild	Rocky, sandy soil
Chugidba	<i>Nephrolepis Cordifolia</i>	Fern	Stomach ache, fever	Roots	Autumn		Wild	Warm areas
Kewa karp	<i>Argyreia venusta</i>	Tuber	Tuberculosis & cough	Roots and fruit	Autumn	Dry the root & fruit	Wild	Sub-tropical disturbed areas
Phagpadum	<i>Bauhinia variegata</i>	Tree	Piles	Bark	All seasons	Intense cooking of bark for few days & extract the liquid	Wild	Warm broad-leaved forest
Dungmen Khenpa	<i>Artemesia vulgaris</i>	Shrub	Hot Stone bath for relaxation	Leaves	All seasons	Mash and boil in water for bath; From Gin: leaves crushed and sap applied to cuts/wounds, wounds	Wild	Grows in disturbed areas
Churula	<i>Spondias pinnata</i>	Tree	Heart disease, headaches	Nuts	Aug-Sept.	Dry the nuts	Wild	
Khungkula		Tree	Piles and tape worm	Seed and extract from tree, oil			Wild	
Rubji/Nyedhu	<i>Milletia pachycarpa</i>	Tree	Stomach diseases, Poison when put it in the river	Nuts	Feb.	Dry the nuts	Wild	Sub-tropical dry areas
Tadepa	<i>Beaumontia grandiflora</i>	Climbing shrub	Trade medicines	Seeds	May	Dry the seeds & fruits once a year.	Wild	Sub-tropical wet areas
Kayhan	<i>Cannabis sativa</i>	Herb	Shoots, given to pigs to calm them	Leaves	All seasons	Used for fiber	Wild	Various habitats

*Thanks to Dr. Anabel Ford for her notes on the plants during her visit to Monpeland.



AUTHOR'S NOTE

As a scientist and university professor, I have become familiar with some Indigenous groups and inspired by their commitment to natural sustainability, respect for ecological systems, conservation knowledge and ecological values. Indeed, the United Nations recognizes that actively involving Indigenous peoples and local communities in wildlife conservation is key to maintaining biodiversity (Kamal, 2017). Documenting Indigenous Bio-Cultural Knowledge is a blossoming field of study, and I have spoken at many conferences on the importance of respecting this information and listening to Indigenous wisdom and stories. With traditions of trading for goods and using only what is needed, Indigenous Bio-Cultural practices show benefits for wildlife and ecological restoration. With development and marginalization, people are being forced to move, displaced from their ancestral lands. Consequently, traditional knowledge cannot be easily passed down from generation to generation if people are not living near each other. What wisdom do we lose when we do not learn from these Indigenous groups who have been living in harmony with nature since creation? A vanishing soul from an Indigenous culture is a lost being, representing loss of knowledge, loss of a heart and mind, a witness in nature. What would we be without the grandmothers who are holding the traditions for the seventh generation? As I began teaching students in my environmental studies courses about conservation, Indigenous wisdom and acknowledging the history of the land became more and more interwoven with stories of ecological preservation and biological diversity. Our ecosystems, wildlife and biodiversity are enriched by the ancient wisdom of Indigenous peoples who inhabit the earth with little to no impact on the environment —there is much to learn from Indigenous practices.



ABOUT THE DOCUMENTARY TEAM

Tribal Trust representatives, Dawn Murray, Barbara Savage, Holly Sherwin, Anabel Ford and Kelly Burke, visited these areas and documented Ap Tawla's plant knowledge. Field surveys were conducted in the forests around Jangbi, Wangling, and Phumsur inhabited by the Monpa by staff of the Tarayana Foundation and the National Biodiversity Center in 2006 and 2007. They collected specimens for the national herbarium and visited locations in different months (April, July, September, and December) to capture seasonal variations in plant phenology. The National Biodiversity Center was actively involved in the field surveys and documented the plant species, the Indigenous knowledge and collected sample species for the National Herbarium. These Bhutanese non-profit groups visited the forested areas to assist in recording the ethnobotanical information of the Indigenous Monpa. The Tarayana report documented that these rural communities are slowly becoming more active in mainstream developmental initiatives promoted by the Royal Government of Bhutan and non-governmental organizations. Increasing efforts to reduce poverty and contribute to socio-economic development in these remote communities' results in quickly changing their way of life. With development comes diminished cultural traditions and threats to living in harmony with nature, making documenting traditional ethnobotanical knowledge even more imperative.



ACKNOWLEDGEMENTS

Our deep appreciation to LUSH Fresh Handmade Cosmetics for its generous grant for supporting the cultural documentation of the Monpas in an effort to help them preserve their way of life and retain the knowledge of their elder natural healer, Ap Tawla. We wish to thank Sonam Pem and the Tarayana Foundation, who worked in collaboration with the Tribal Trust Foundation, in securing the funding and organizing the researchers. This book would not have been possible without the Monpa communities, who welcomed us into their homes and cultural celebrations, and facilitated our research. We are indebted to the Folk Heritage Museum for their research. A special thanks to Yangphel Adventure Travel for going above and beyond in their duties. Additionally, we acknowledge the following people for their contributions to this study – Drs. Anabel Ford and Seeta Giri.



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