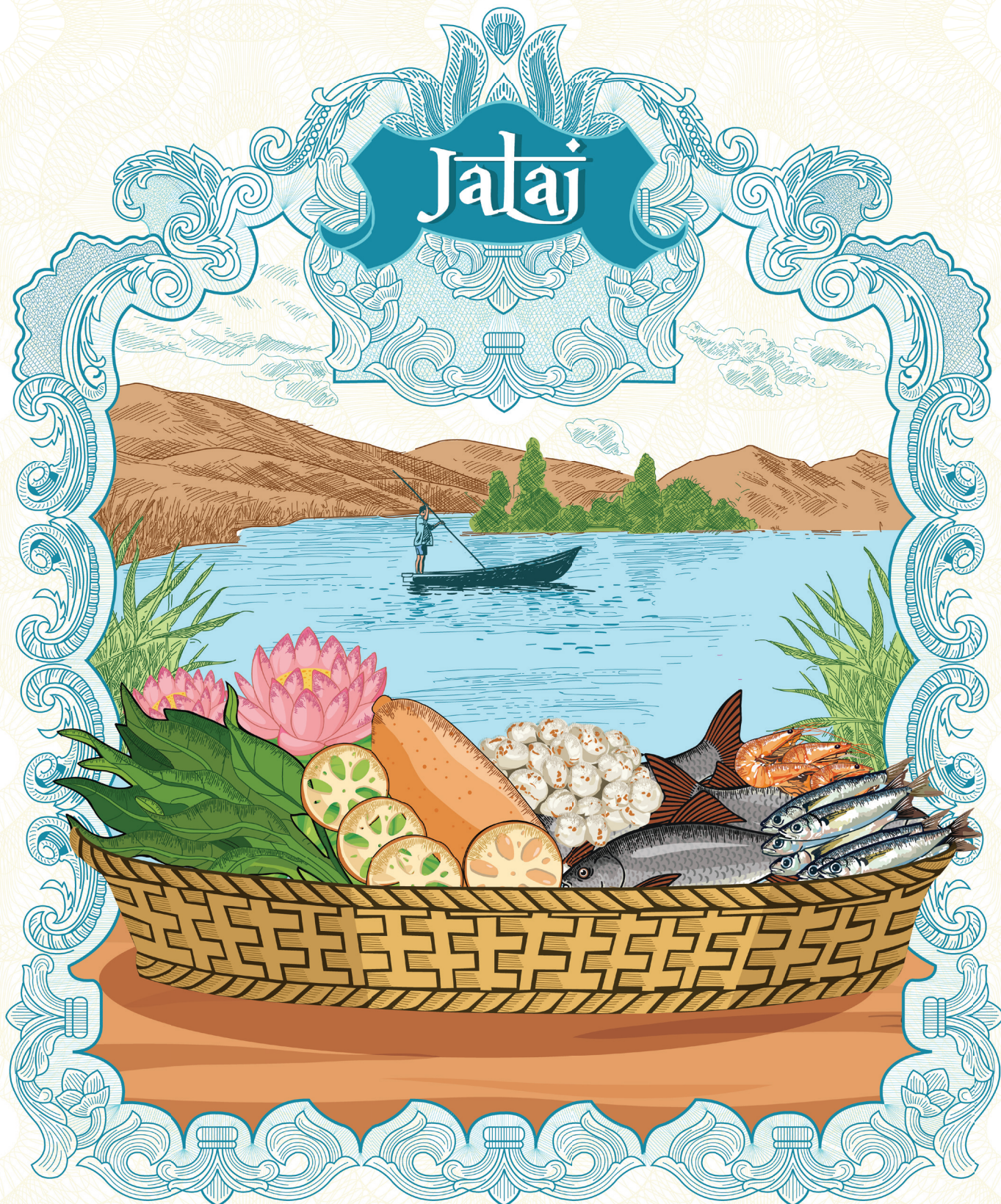


Jalaj



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New Delhi, 2025



A compilation on wetlands and their
innumerable linkages with Indian cuisine

Jalaj

/ˈdʒəlˈədʒ/

Born of water; also used to refer to lotus, pearl, shell, fish.

Preface

Wetlands have, since time immemorial, been the cradles of life. In the floodplains and the deltas of majestic rivers, with access to water, the soils replete with nutrients and abundant resources around, the first civilisations gained foothold.



Today, the diverse wetlands across the Earth are vital sources of cultivated and captured food for the entirety of global population. From the global staple rice grown in paddy fields, to the captured fish and shellfish and other aquatic animals; from the harvesting of leafy vegetables to seaweed, fruits & nuts – Wetlands cater staples as well as delicacies to billions of people across the world, thus providing sustenance as well as livelihoods. It is estimated that rice paddies feed 3.5 billion people annually (Ramsar Convention).

But as our lives pivot to a direction of consumption and unbridled development, we risk losing our wetlands, and all that they bring into our lives. Along with reduced climate change resilience, loss of livelihoods and multiple resources, wetland loss also impacts nutritional security and health of several communities. For example, the fish harvested from wetlands provide the primary source of protein for more than 1 billion people (Ramsar Convention). It is thus imperative that all of us get together to manage and use wetlands 'wisely'.

Local communities, the world over, have found ways to admire the life-giving nature of their wetlands – in worship and customs. Thus, the local communities have been the vanguard of wetland management and conservation. The Vembanad-Kole wetland complex in Kerala, survives because of the human intervention in the form of traditional paddy cultivation, a highly co-ordinated effort of draining, storing and recycling water, which dates back around 300 years. The region is rich with folklore and folk songs that are associated with the rituals of their traditional occupations and often matches the rhythm of the water wheels. In Loktak in Manipur, *Loktak Ima* or Mother Loktak, is considered by the people to be a spiritual mother who has nurtured the people over the ages. The indigenous fishing community possesses a wonderful and rich assemblage of knowledge and skills that ensures wise use of the Loktak.

It is noteworthy to reiterate that such close existence on wetlands is hinged on their role in human survival and sustenance. The identity of a community is rooted in the landscape it inhabits – the plants that thrive in that soil, the water that flows or stops there, the fish that swim in its water, the animals that graze and prowl there and the birds that nest or visit there.



It is estimated that rice paddies feed 3.5 billion people annually

It is these elements of the landscape that also provide the ingredients for making the food that sustains the community. Thus, the palate of a people group reflects their origins, their movements, their creativity and their resilience.

The wetlands of the country (and the world) have consequently lent themselves to the traditional food and beverages of the people who depend on them. From the different parts of the same water lily plant being used in vastly different preparations to the stem of lotus being made into different recipes across the country, from the estuarine and marine fish, shrimp and crab feeding our coast dwellers to the freshwater dotting our floodplains and ravines, from the aquatic plants like *makhana* (foxnut) and *singhada* (water chestnut) to the vegetables that thrive in wetland conditions like gourds and *Colocasia*, Indian cuisine is made richer with wetland produce. The staples rice and salt are in fact the most significant contribution of wetlands to our food.

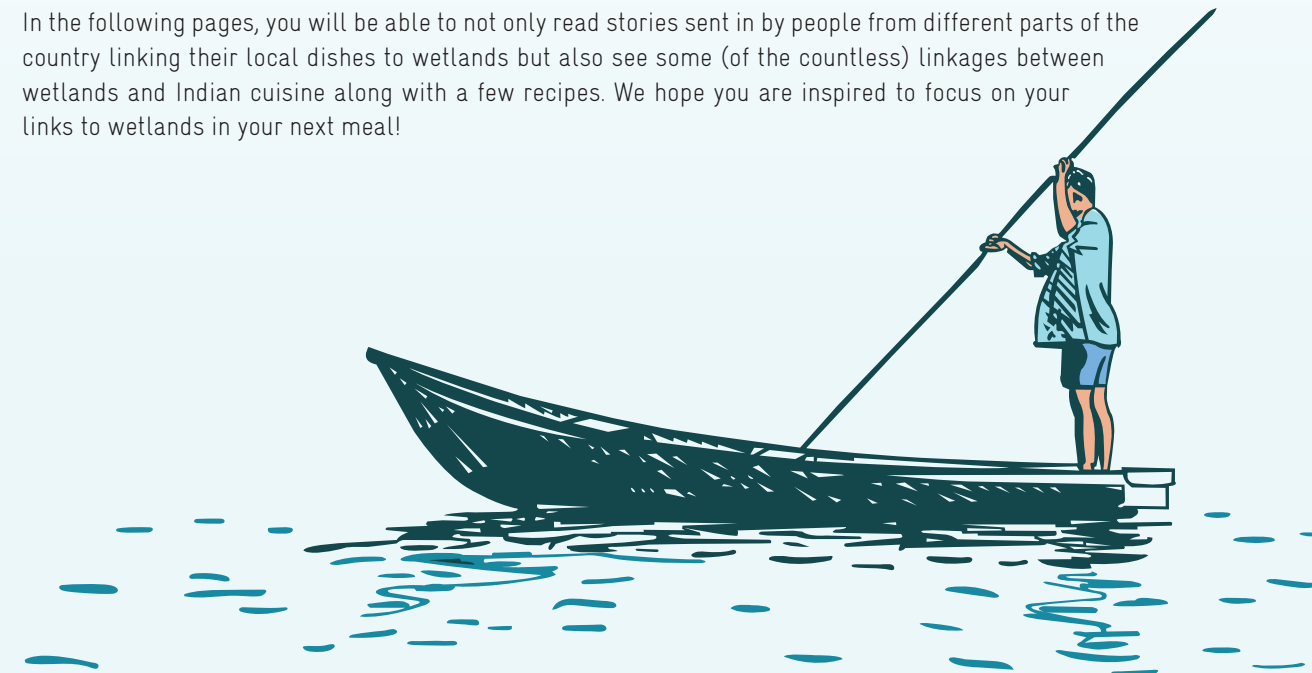
And this is not just true for India. For example, a small discussion on Ramsar Culture Network on this theme brought forth other such interesting wetland imports from another part of the world. Sévérin Tchibozo noted that in Benin, a country in West Africa, traditional beverages from wild win palm and local cooking methods of edible larva from the wetlands are all part of the tapestry of the country's cuisine.

These unique food, recipes and stories need to be documented to not only bring forth and communicate the linkages of people to wetlands but to also preserve these ties. They are part of the intangible heritage and traditional knowledge of different communities and documenting these also helps augment sustainable traditional livelihoods as well as tourism potential of wetlands, thereby securing well-being of wetland-dependent communities and their support towards conservation.

In the following pages, you will be able to not only read stories sent in by people from different parts of the country linking their local dishes to wetlands but also see some (of the countless) linkages between wetlands and Indian cuisine along with a few recipes. We hope you are inspired to focus on your links to wetlands in your next meal!



The fish harvested from wetlands provide the primary source of protein for more than 1 billion people





Wetland plants are a characteristic feature of these ecosystems. They have adapted in unique ways to survive in wetland conditions. Some wetlands plants, like the water hyacinth, provide a critical filtration purpose while others, like the mangroves, protect from storm surges and cyclones. Amongst many other fascinating roles of wetland plants, here we look at some of the unique wetland plants and their interesting connections to India's culinary diversity.

Water Lily

Water lilies, (often confused with lotus!) found rooted in wetlands with flowers and leaves above the water surface, are culturally significant to many countries. It also has several examples of unique usage across different landscapes. Historically, water lilies have been a reliable source of nutrition amongst the wetland-oriented communities worldwide, including India, during the periods of food scarcity. Although, water lily flowers, leaves, tubers, roots, and rhizomes are extensively used as food across the world, in India, its usage is mostly limited to flowers, fruits and stems (peduncle). In some parts of the country, the dried seeds are also used to make flour.

Water Lily Seeds

In Malda, West Bengal, only a handful of families have kept the tradition of making water lily popcorns alive. Every year from October, women of these families start collecting water lily fruits from different beels and ponds across the district. The fruits are then left to decompose until the seeds are out. Then the seeds are separated, sun-dried and roasted in heated sand to make water lily popcorns, locally called as *bhya't'er khoi*. Besides being protein and fibre-rich, these popcorns help enhance immunity. Also, according to local belief, it is one of the most favoured offerings of lord *Kartik*. So, every year starting from the day of *Kartik puja*, water lily popcorns are sold in temporary stalls in different fairs running throughout the winter months. This is the only time of the year when it is sold in the market. For several generations, this business has been entirely run by women.



Water lily stem

Water lily stems feature prominently in diverse culinary traditions in India, renowned for their high protein content and low-fat levels. Due to the nutritional value, water lily stems are used as vegetables among wetland-focused communities. Although the popularity is in decline, fritters made from the stems are cherished as a popular snack in eastern India.



Foxnuts (Euryale ferox)

Foxnuts (*Euryale ferox*) or the prickly water lily, commonly known as *Makhana* in India is a widely grown aquatic plant in eastern and north-eastern India and parts of Madhya Pradesh, Rajasthan, and Jammu & Kashmir. The seeds are collected by sweeping the bottom of the leaves. Following which the seeds are processed, dried and dry-roasted to pop and produce *Makhana*. It has a wide range of culinary use in India including in sweets, savoury items, and as snacks. It is a good source of carbohydrates, and minerals. The nutrient rich Foxnuts or *Makhana*, with low saturated fat and high fibre content, is considered superfood and is consumed worldwide. Cultivation of *Makhana* is a labour-intensive activity. Primarily people from the socio-economically weaker section of the society are associated with the harvesting and processing of *Makhana*. Almost 90% of the world's total produce comes from India, specifically the state of Bihar.



Lotus



Did you know?

'True' lotus, belonging to *Nelumbo* genus has just 2 species whereas Water Lily, belonging to *Nymphaea*, includes nearly 70 different species.

Lotus vs Lily!

A major visual difference between the two is that a Lotus grows a perfectly round leaf pad, with thin and papery round leaves and the flower hovering above water by 6 inches or more. Whereas water lily grows a lily pad, sometimes with a notch, with pointy thick and waxy leaves and flowers that float directly on the water.



Lily

Lotus

Lotus has unmatched culinary versatility and reverence in Indian culture. Born out of muddy wetland waters, this aquatic plant, transforms into a cherished kitchen ingredient. From its crunchy roots to the delicate seeds nestled within flower pods, just like Water lily, the lotus also offers every part of the plant for culinary exploration.

The nutrient-rich sediments of Indian freshwater wetlands ecosystems, provide ideal growing conditions to these aquatic plants. The plant also acts as a natural biofilter, absorbing excess nutrients and pollutants while supporting diverse aquatic life. Lotus root, known as kamal kakdi, bhae or nadru, is a versatile ingredient that is fried, pickled or simmered into various regional dishes.

(In many Indian languages, the words for lotus and water lilies are however same, which add to confusion. As you read earlier, 'Makhana' is often incorrectly referred to as 'lotus seeds'.)

In Kashmir especially, lotus root, referred to as Nadru, is an integral part of a variety of dishes.

The folklore ascribes the popularity of nadru to 15th Century ruler Badshah Ghiyas-uddin's discovery of lotus in Gilsar lake of Srinagar. Enraptured by the boatmen's use of the nadru harvested from the lake in the food offered to him, the ruler went about introducing the beautiful flower in all the lakes in the valley.

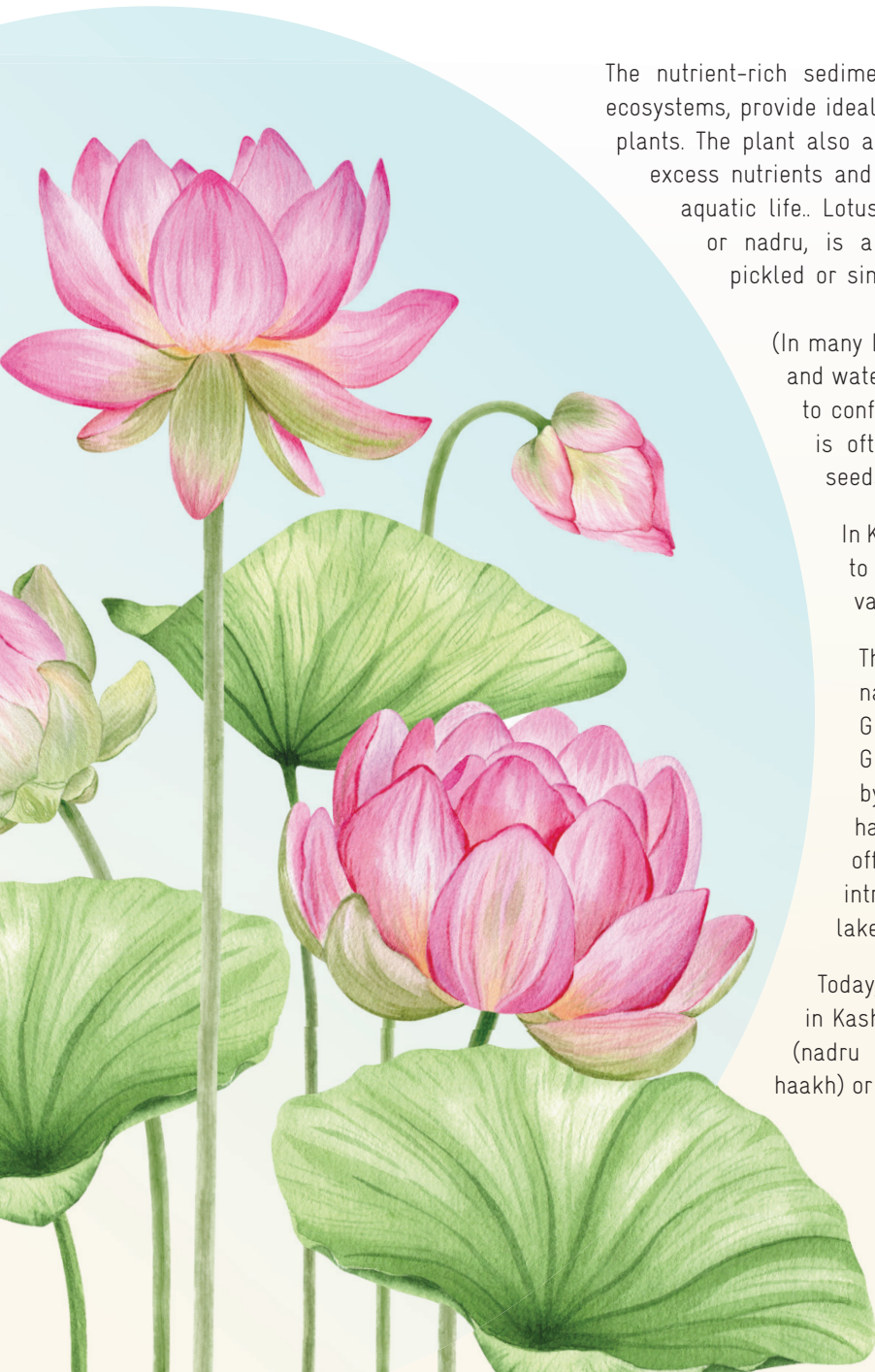
Today, the plant finds a ubiquitous place in Kashmiri cuisine – as fried crispy snacks (nadru monje), with hearty greens (nadru haakh) or mixed with lentils into hearty curries.

The hallmark Kashmiri dish that incorporates lotus is Nadru Yakhni – usually made using lotus roots, ghee, cardamom, cloves, cinnamon, aniseed, ginger, yogurt, and salt.

But the tale of nadru is also important to note how intertwined wetlands are in our lives – During the devastating floods of 2014, lotus almost disappeared from most lakes in the valley, putting not only food but also livelihoods at stake. With no natural restoration in sight, lotus seeds and saplings from Nigeen Lake were replanted to the other lakes in the region. Today, it is back in the valley; though some claim it is not the same fresh nadru they remember.

Other than the lotus root, lotus flowers are also used in Indian and other Asian cuisine. The large lotus leaves serve as natural food wrappers, imparting subtle earthy flavors to steamed rice dishes and creating eco-friendly alternatives to plastic packaging.

In later pages, you will find a detailed recipe of Thambou Singju, a cherished lotus root salad from Manipuri cuisine.



Rice

This addition to the list goes without saying! As one of the top 3 leading food crops of the world, rice serves as a staple meal for half the world's population and the ubiquitous rice fields are some of the widespread types of wetlands.

Paddy fields require consistent water levels throughout the growing season. Farmers carefully manage water levels using irrigation techniques such as flooding, or channelling water from nearby sources like rivers or reservoirs. These vast paddy fields, while flooded, transforms into a self-sustaining wetland ecosystem.

It is believed that in India, paddy cultivation was introduced by the South - East Asian migrants, almost 5000 years ago. Currently, approximately 27 percent of India's arable land is dedicated to paddy cultivation in various forms. States like Uttar Pradesh, Bihar, West Bengal, Kerala, and Tamil Nadu boast extensive riverine floodplains dotted with paddy fields. These seasonal wetlands provide opportunities for fisheries as well. In some regions of India, freshwater prawn cultivation in paddy fields is a traditional practice.

With this expansive spread, rice has become an integral part of various Indian cuisines in a rich diversity of preparations. In the Southern, Eastern and

North-eastern states, rice is considered a staple. The diversity of rice-based dishes is astonishing - the savoury *pulao* of Northern, the unique *Biryani* that dot India, the simple and comforting rice and lentil combination of *varan bhaat* of the western India, the versatility of rice lends itself to a spectrum of culinary traditions.

Another offering of rice to our palate comes from its extensive use in traditional alcoholic beverages. The diversity of growing and incorporating rice in food and drinks using rice for sustenance and cuisine are all part of intangible traditional practices, passed down the generations of the various people groups who inhabit India.



Sweets

Kheer (made with rice, milk and sugar, it is consumed across India in slightly different variations); *Payasam* (a staple in South Indian cuisine, particularly during festivals. It is made by cooking rice in milk (and sometimes coconut milk) and sweetening it with jaggery or sugar); *Kinnathappam* (a soft, fragrant pudding-like delicacy from Kerala, made by blending rice flour, coconut milk, jaggery, and spices, which are then steamed)

Snacks

The plant doesn't only lend itself to hot meals - puffed rice (known across the country by different names such as *laiyya*, *murmura*, *mamra*, *muri*, *parmal*, *mandakki*, *puri*, *mudhi*, *borugulu* and more) and flattened rice (*poha*) are also used extensively in dried foods and snacks that are very integral to Indian cuisine.

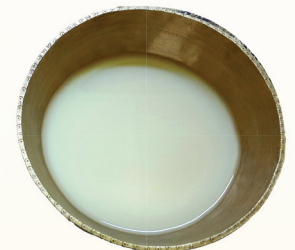


Savoury

Pulao and *Biryani*, prepared across India with regional variations champions this section. In the southern states, rice finds its expression in dishes like Tamil Nadu's *pongal*, a savoury rice and lentil dish, Karnataka's *bisi bele baath*, a spicy and tangy rice dish cooked with lentils, vegetables, and tamarind and Kerala's *Appam*, a rice pancake mixed with coconut butter.

Beverages

From *chuak* of Tripura to *handia* in Bihar, from *apong* of Assam and Arunachal to *Sekmai Yu* of Manipur, from Himchal's *lugdi* and Nagaland's *Zutho*, rice brews are not only part of the cuisine but also heritage of many a tribes and communities of the country, especially the women who prepare these traditionally.



In the southern state of Kerala lies *Kuttanad*, a unique mosaic of landscape patches - deltas, backwaters, marshes, paddy fields and networked backwaters. The site is designated as a 'Globally Important Agricultural Heritage System' (GIAHS) and is the only agriculture system in India which practices rice cultivation below sea level! The *Kuttanad* paddy fields are reclaimed marshlands of the Vembanad wetland system. FAO recognises that the *Kuttanad* system of below sea-level farming is an approach to cope with the imminent climate impacts in coastal areas. The mixed agro system of farming also allows for livelihood, ensuring another income as well as manure supply for the farmer.

Source: Cultural Significance of Indian wetlands

Other Wetland Plants in Indian Cuisine

Water Chestnut



Water chestnut, locally known as *singhada*, holds an extensive culinary significance in India, particularly in northern India, where it is consumed as an important ingredient in traditional dishes. Due to its distinctive texture, these crunchy, nutty-flavored vegetables remain a prominent element in Indian cuisine, serving as both a staple ingredient for everyday cooking and a festive delicacy. They are commonly used in both sweet and savoury preparations as well as consumed raw. They are also boiled and ground to prepare flour, *singhade ka aata*, which is used to make dishes like, *singhada pakora* (Water chestnut fritters), and *singhada ka halwa* (Water chestnut pudding). Moreover, as they are low in calories and fat and rich in fibre, potassium, vitamins, and antioxidants, they make a healthy addition to our diet.

Buffalo spinach

While more and more people search for organic and healthy diet, indigenous wild edible plants can prove to be a part of the crucial solution. These plants could serve as a vital resource for future sustenance and contribute to alleviating food challenges in developing nations. One such edible plant, sourced from wetlands is Buffalo spinach (*Enydra fluctuans*). It is known as *Helencha* in West Bengal and *Hidimichia* in Odisha, a native Indian plant grown in marshy areas. Being rich sources of micronutrients, vitamins, antioxidants, and folic acid, it is used in traditional remedies against high blood pressure, liver diseases, nervous disorders and so on. It is widely consumed as a vegetable across Odisha, Jharkhand, West Bengal, and Assam and has been a good source of crude protein for centuries for the indigenous communities across Eastern and North-Eastern India. In one of the common preparations, the leaves of the plant are finely chopped and stir fried in mustard oil with dried chillies, chopped onion and consumed with rice.



Water spinach



Water spinach (*Ipomoea aquatica*), locally known as *kalmi*, is a widely available aquatic plant in India. The leaves and tender shoots of this South Asian native plant are used as a vegetable. Owing to its nutritional content and believed health benefits like their ability to regulate detoxification enzymes, water spinach has been utilized in Ayurvedic medicine for centuries to address jaundice and liver issues. These diverse nutritional and medicinal advantages, make it an important affordable and readily accessible superfood for the economically disadvantaged population in India.

From the Mangroves!

Did you know?

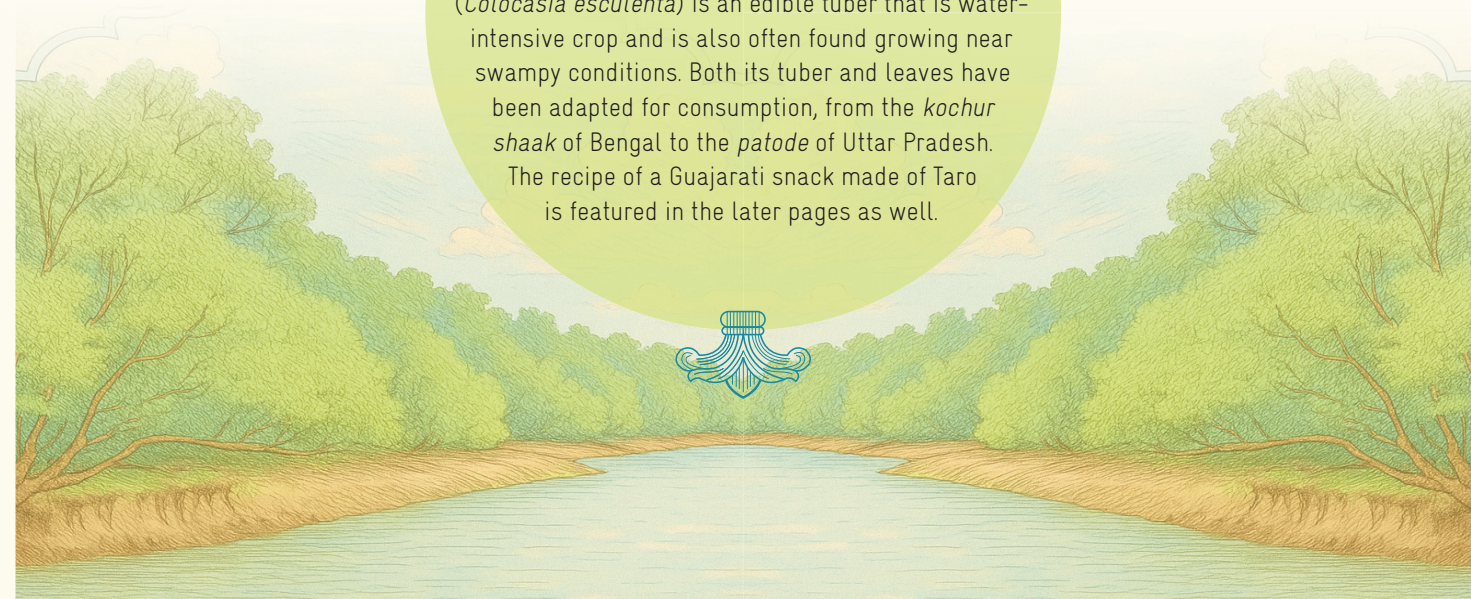
The plants from mangroves, a kind of coastal wetlands, are an interesting addition to Indian cuisine. Case in point are *Pandanus* leaves, also called *Annapurna* in Odia, which are widely used in coastal communities to lend aroma to rice and pithas. There is a growing body of research into mapping lesser known and underutilised edible mangrove fruits across Asia to support nutritional and economic security in poor communities.

In Bhitarkanika, different mangroves plants provide fruits that are eaten directly on ripening or made into cooked recipes. Some plants also act as rice substitute in times of scarcity.

Another significant linkage of mangroves with our plates is honey – from the moulis harvesting in Sundarban to the banarua-based honey in Odisha, the mangroves of India provide a distinct sweetness to our cuisine.



Along with the cited examples, there are several more plants that grown in or near wetlands that can be important source of nutrition and food for communities staying nearby as well as harvested for sale and use elsewhere. For example, Taro (*Colocasia esculenta*) is an edible tuber that is water-intensive crop and is also often found growing near swampy conditions. Both its tuber and leaves have been adapted for consumption, from the *kochur shaak* of Bengal to the *patode* of Uttar Pradesh. The recipe of a Gujarati snack made of Taro is featured in the later pages as well.

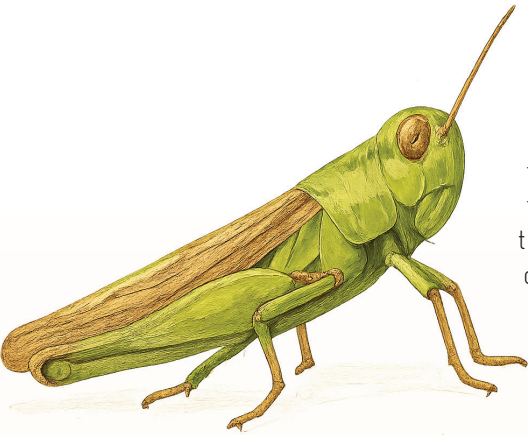


Plants are not the only wetland resource that contribute to our food needs. Along with grasses, flowers, grains, fruits, weeds, and crops, trees and more - there are many wetland and wetland-dependent lifeforms which are harvested and/or consumed. Coastal wetlands provide seafood - fish and clams, lobsters and crabs. Fish harvesting and cultivation is also a widespread livelihood in both coastal and inland wetlands. Many reptiles, amphibians, birds living in wetlands form an eclectic part of global and Indian cuisine as well.



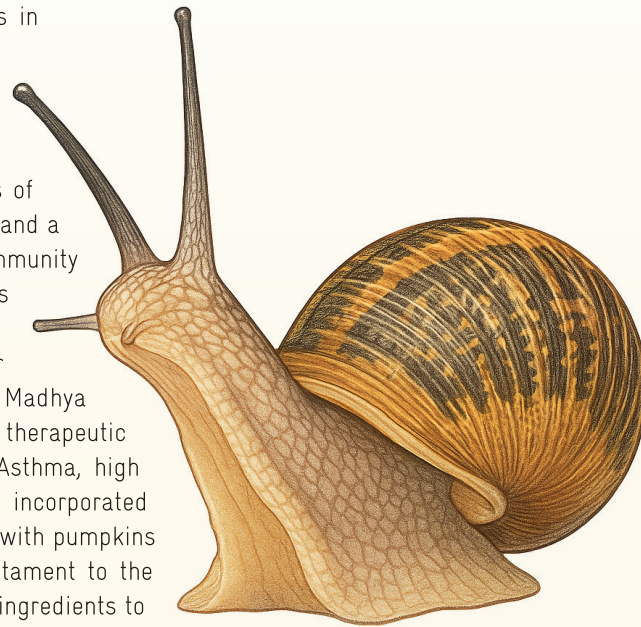
Insects

In Manipur's *Loushi Pat* (pat is the local name for wetland), the local insect harvesters use a circular rimmed net all made up of bamboo strips or split bamboo called a *longthrao* to harvest edible insects along with fish. In this method, called *long khonba*, the harvester put the long in the wetland and kick the water or aquatic vegetation, trapping fish and insects in the net. Some of the most commonly harvested insects include damselflies and dragonflies (*Kumjeng* and *Maikhumbi*), water beetles (*Tengbi*, *Tharaokokpi* and *Chickcribi*), crickets and grasshoppers (*Koujeng*, *Harou*, *Waahi*) and many more. After collection, the edible insects are processed for consumption, mostly by removing the wings. While some are roasted or fried in mustard oil, others are eaten raw or boiled. Most harvesters collect this for consumption at home but some of the insects which are considered delicacies find many buyers in weekly markets or even in Imphal's *Ima* market. Entomophagy in north-east India, just as world over, is closely linked to traditional understanding of local ecology and life cycles and is a cornerstone in community nutritional security.



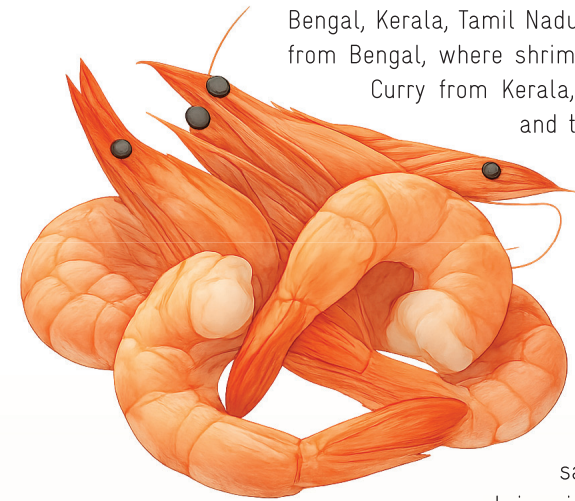
Snails

Women can often be seen selling baskets full of snails in the markets of Northeastern Indian states like Assam, Meghalaya, Manipur, Mizoram, Nagaland, and Tripura, as well as West Bengal. Snails thrive in moist environments in and around wetlands. It's a good source of protein, iron, calcium and many other minerals. Hence, in many parts of India, freshwater snails have been a traditional delicacy and a comfort food for the tribal population. Take the *Lodha* community of West Bengal for instance. When the agricultural produces become scarce during the lean seasons, members of the *Lodha* community consume different species of freshwater snails to supplement their nutritional needs. The *Baigas* in Madhya Pradesh consume snails not just as food, but also as a therapeutic agent for treating several ailments such as Anaemia, Asthma, high blood pressure etc. In Assam, the Bodo people have incorporated snails into simple dishes like *Pani Xamuk*, cooked along with pumpkins and potatoes.. Their inclusion in Indian cuisine is a testament to the adaptability of communities in utilizing locally available ingredients to create flavourful and nutritious meals.



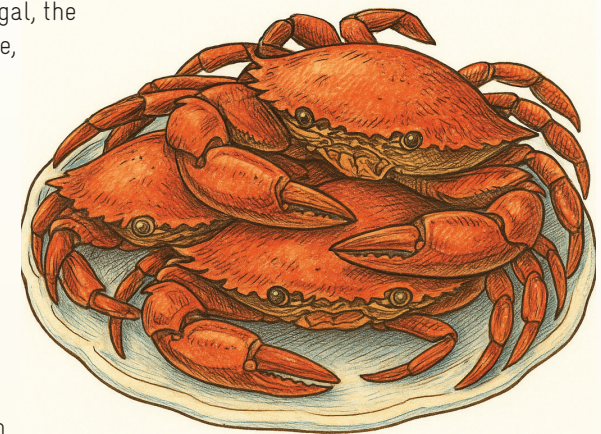
Shrimp

Shrimp is a beloved ingredient in Indian cuisine, especially in coastal states like West Bengal, Kerala, Tamil Nadu, and Goa. It's featured in dishes like *Chingri Malaikari* Curry from Bengal, where shrimp is cooked in a rich, coconut-based gravy, and *Chemmeen* Curry from Kerala, which brings out the bold flavours of shrimp with spices and tamarind. In Tamil Nadu, *Eral Varuval*, a spiced shrimp fry, is commonly enjoyed, while in Goa, *Xacuti* features shrimp cooked in a complex, spiced coconut gravy. Beyond its culinary presence, shrimp holds a significant cultural role. It's celebrated in many festivals and rituals, symbolizing good fortune. The rise of shrimp farming has also had a positive impact on India's economy, especially in coastal areas where shrimp farming has grown rapidly over the years. States like Andhra Pradesh, Kerala, and West Bengal are at the heart of this boom. Researchers have pioneered shrimp cultivation in saline waters even in inland areas like Haryana. Economically, shrimp is a powerhouse, with India exporting around 3-4 lakh metric tonnes each year. This growth in shrimp farming not only supports local livelihoods but also brings communities together.



Crabs

From the bustling markets of Goa to the fishing villages of Bengal, the crab takes its place at the heart of India's rich culinary heritage, a symbol of abundance, hospitality, and the enduring bond between land, river and sea. In Odisha and Assam, during the monsoon, communities engage in crab collection as a collective activity, where families and neighbours come together to harvest crabs from wetlands and rivers. Each region offers its own distinctive take on crabs in their dishes. Down south, in Kerala, *Njandu Roast* (Crab Roast) is a popular dish where crab is cooked with a blend of spices like turmeric, fennel, and coriander. In Bengal, *Kankrar Jhal* combines crab with potatoes and aromatic spices like cardamom, cinnamon, and garam masala, cooked in mustard oil. At the same time, Maharashtra's *Malvani* Crab Curry brings together crabs and shredded coconut in a spicy gravy, simmered to perfection with *Malvani* fish masala. Mangalorean cuisine offers Crab *Sukka*, where crabs are cooked with a mix of tamarind, coconut, and spices for a tangy, aromatic dish. The crab's significance is not just culinary but also tied to spirituality and community practices, where they are offered as part of pujas. One such practice can be observed in Gujarat, especially in Shiv Temple rituals, where people offer live crabs as a part of their devotion. This unique ritual, observed at the *Ramnath Ghela Mahadev* Temple, symbolizes reverence for Lord Shiva and is believed to bring good fortune and blessings.



Fish

Fish in Indian wetland cuisine is no mere ingredient. It's a symbol of culture, resilience, and survival, woven into the very soul of communities around rivers, wetlands, and along coastlines. Whether it is the bustling fish markets of Kerala's backwaters or the serene Chilika Lake in Odisha, a day's catch sustains millions. The Department of Fisheries, Government of India (2022), reveals that over 14 million people directly benefit from this sector, with countless others benefitting indirectly. India's relationship with fish stretches back to the Indus Valley, where ancient fishing tools tell the tales of a deep bond with water. Today, as one of the world's top fish-consuming nations, India's per capita fish intake climbs steadily, as a testament to its passion for aquatic food.

In Southern India, fish is the heartbeat of tradition and festivity. Kerala's *Karimeen Pollichathu*, a

pearl spot fish slathered in fiery spices, wrapped in banana leaves, and grilled to smoky perfection, steals the show at *Onam* feasts and weddings. Or Tamil Nadu's *Meen Kuzhambu*, a tangy, tamarind-infused curry simmering in clay pots, its aroma heralds *Pongal* celebrations. In Andhra Pradesh, the Nellore *Chepala Pulusu*, a fiery, spicy fish curry with green chilies, embodies the region's bold coastal spirit. These aren't just dishes, they are traditions, carrying stories of generations and tying families to the sea.

Beyond the kitchen, fish are considered sacred in several parts of the country. The coastal temples offer fish to appease sea deities, a *Dravidian* ritual that binds the divine to the daily, as noted in studies of ancient South Asian fish symbolism. This reverence for fish resonates across India.

In West Bengal, *Maachher Jhol*, a light yet soulful fish curry, graces every table, while weddings are incomplete with rich fish platters such as *Shorshe Ilish*, Hilsa fish in a thick, spicy mustard gravy. *Durga Puja* sees fish offered as prasad, symbolizing prosperity. Assam's *Bhogali Bihu* is celebrated with *Masor Tenga*, a zesty fish curry that captures the festival's joy, while Nagaland's festivals showcase tribal fishing techniques, blending survival skills with festivity. These rituals and feasts associated with fish, unite India's diverse culinary tapestry.

For the economically marginalized, fish is a lifeline, delivering affordable protein where other options falter. In Odisha's Chilika Lake, India's largest brackish lagoon, fish like *Rohu* and prawns feed lakhs of people. It gave rise to *Machha Besara*, a mustard-laced dish that has become a cultural

emblem. In Bihar's flood-prone wetlands, a simple *Machhli ka jhor* (fish curry) sustains communities, supplementing the nutrition demands at the times of scarcity. As per FAO Data (2016), fish supplies 12.8% of India's animal protein, with freshwater varieties like *Rohu* and *Catla*, rich in Omega-3s, leading the front. This accessibility has prompted resilient cuisines, transforming necessity into pride and fostering community through shared meals.

Fish in India is a story of survival and celebration. From Kerala's spicy curries to Bihar's humble stews, fish binds communities to their waterways, enriches rituals, and nourishes millions. Whether grilled for a festival, offered in a temple, or savored in a fisherfolk's hut, fishes in India symbolize resilience, and the rich tapestry of the nation's gastronomic and cultural heritage.



Karimeen (KL, TN) |
Mola carplet



Muka Nga (MN) |
Mola carplet



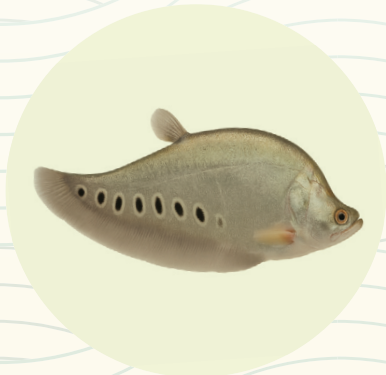
Parshe (WB) |
Baby Mullet



Batchua (OD) |
Batchwa Vacha



Kala tenguah (UP) |
Gangetic mystus



Chitor (MP, UP) |
Indian knifefish

From Wetlands to our Plate

Patra

Neha Khara, Gujarat

Colocasia plants thrive in wetland environments and are typically grown in moist soil or shallow water. Their leaves, known as taro leaves or arbi ke patte are widely used in various cuisines, particularly in tropical and subtropical regions. One such dish made in India is 'Patra' cooked primarily in Gujarat and Maharashtra. To prepare Patra, Colocasia leaves are washed, dried, and the stalks and veins are removed. A smooth batter is made by mixing gram flour, tamarind pulp, jaggery, ginger paste, green chili paste, red chili powder, turmeric, and salt. The batter is spread between stacked leaves, which are then rolled tightly and sliced into 1-inch pieces. In a pan, mustard seeds are heated in oil until they splutter, followed by sesame seeds. The rolls are added and cooked on low heat, turning golden brown and crispy. It is served hot with chutney or as a side dish.

Singhada Laddu

Poonam Singla, Haryana

Living in a small town of Haryana, makes me more attached to the nature in comparison to the urban areas. My mother inherited a traditional recipe from my grandmother that uses water chestnut, locally known as Singhada, a wetland resource. A widely known sweet dish, Singhade ka ladoo, is made by combining water chestnut flour, ghee, powdered sugar (or jaggery), and a pinch of cardamom. My mother adds her own unique touch to the traditional recipe by blending in a hint of fennel powder to enhance its flavour and aroma.

Mouri Maach Bhaja

Priyankar Chakraborty, West Bengal

The wetlands of West Bengal in Eastern India are the birthplace of a culinary gem - Mouri Maach Bhaja or crispy fried Mourala fish. This popular dish features the tiny but delicious Mourala fish (Amblypharyngodon mola), found in the marshy wetlands, which gives the dish its distinctive flavour. The recipe involves marinating the fish in a mixture of spices and then deep-frying it until golden and crispy.



The inputs on this spread were collected through an open call shared on social media platforms and mailing networks as a google form. The plate visualises these dishes from across India. Data presented is adapted from the content (textual and media) shared by the individuals credited therein.

Koi Maach

Raihanul Islam Sarkar, West Bengal

During the Monsoon season, when the wetlands are full of these small fish, locals indulge in catching fish with bamboo traps and nets. A very common catch during this time is the Koi fish. Fed upon by the locals, this fish holds both nutritional and cultural value. It is traditionally prepared as a curry or by stuffing the marinated fishes inside bamboo poles and roasting it under fire.

Thaamaravalayam

Navya P, Kerala

Kondattam is a group of dishes made in many parts of Kerala. They are essentially vegetables that are salted, dried and fried in coconut oil. Sometimes it is boiled with a pinch of turmeric, sometimes it is immersed in acids (curd, tamarind water). And the different vegetable in the kondattam reflects the diversity within the state. In Southern parts, the one with chillies is more common. In Palakkad where I hail from, we have kondattam of French beans, okra, and bitter gourd. A few years back, my grandmother introduced me to thaamaravalayam (lotus rings). This kondattam is made from lotus roots. To make this, lotus roots are dried, cleaned, cut, boiled with some salt. This is then further sun dried and then fried in coconut oil.

Lingri ka achaar

Vishal Chaudhary, Himachal Pradesh

Fiddler heads or fiddlehead greens are the furled fronds of a young fern, found near wetlands. As fiddlehead is harvested early in the season, before the frond opens and reaches its full height, they are cut close to the ground. Found in the Himalayan states of North and Northeast India, it is known in different names such as Lingad in Mandi (Himachal Pradesh) and Kasrod in Chamba. In the Kullu Valley in Himachal Pradesh, it is known as lingri and is used to make pickle - lingri ka achaar. In our home making lingad starts with washing and cutting the greens into small pieces. Then oil is added to the pan, followed by cumin, chopped onions and garlic, turmeric, chilli (red/green), salt, garam masala and is cooked for 15- 20 min. This delicious dish, high in potassium content, is often eaten with chapatti.

Thambou Singju

(Lotus Root Spicy Salad)

A cherished dish in Manipuri cuisine, *Thambou Singju* celebrates the crisp texture of lotus root (*Thambou* = Lotus Root and *Singju* = Spicy Salad) combined with a medley of local spices and indigenous ingredients. Known for its bold, tangy, and spicy flavors, this traditional salad is a delicacy among locals and a reflection of Manipur's rich culinary heritage. The dish embodies the creative use of indigenous ingredients and reflects the region's love for bold and spicy flavours. As a beloved local specialty, thambou showcases the cultural significance of food in Manipuri traditions, making it a must-try for anyone seeking an authentic and mouthwatering culinary experience.



Ingredients:

- 1 cup fresh lotus root (*thambou*), thinly sliced
- 1 tablespoon roasted gram flour
- 1 teaspoon perilla seeds (roasted and ground)
- 1 tablespoon fermented fish (*Ngari*) (optional but traditional)
- 1-2 dried red chilies, ground into powder
- Salt, to taste
- Fresh coriander leaves, finely chopped (for garnish)
- A handful of cabbage or banana flower, finely shredded (optional)

Instructions:

1. Prepare the lotus root: Wash the lotus root thoroughly and slice it into thin, even pieces to retain its crunchy texture.
2. Roast the gram flour and perilla seeds: Dry roast them separately in a pan until fragrant. Once cooled, grind the perilla seeds into a fine powder.
3. Mix the base flavors: In a mixing bowl, combine the sliced lotus root with the roasted gram flour, ground perilla seeds, and fermented fish (*Ngari*) if using.
4. Add spice: Sprinkle the ground red chilies and salt, then toss everything together until well-coated.
5. Add the shredded cabbage or banana flower (if using) for extra crunch and mix well.
6. Garnish and serve: Finish with chopped coriander leaves and serve fresh as a vibrant, spicy salad.

Tip: Adjust the spice level and fermented fish quantity according to preference. Best enjoyed immediately for maximum crunch and freshness!

Note: The above recipe and photos have been shared by Mr Yaiphaba Akoijam, Wetlands Management for Biodiversity and Climate Protection project, Indo-German Biodiversity Programme, GIZ India

Kochu Pata Chingri

(Taro leaves with Shrimp)

Kochu Pata Chingri is a beloved Bengali dish that beautifully represents the region's deep connection with both its agricultural and coastal heritage. The dish combines *kochu pata* (taro leaves), which are commonly grown in across the landscapes of West Bengal, with *chingri* (shrimp), a staple from the state's rich inland and coastal wetland complex. The taro leaves, rich in nutrients, are cooked with shrimp in a mustard oil base, along with a mix of aromatic spices, creating a flavourful and comforting dish. Traditionally served with steamed rice, this dish is a reflection of the region's cultural fusion of agrarian and maritime lifestyles, often consumed during festivals or family gatherings.



Ingredients:

- 8-10 small *kochu pata* (taro leaves) or 2-3 large ones
- 2-3 green chillies, slit
- 1 tablespoon mustard oil
- 1/2 teaspoon nigella seeds (*kalonji*)
- 200 grams small prawns (*chingri*), cleaned and deveined
- 1 teaspoon turmeric powder
- 2 tablespoons black mustard paste
- Salt to taste
- 1/2 cup water (for cooking the leaves)
- 1-2 tablespoons freshly grated coconut
- 1-2 tablespoons tamarind water (or lime juice with a pinch of sugar as an alternative)

Instructions:

1. Wash and thinly slice 8-10 small or 2-3 large taro (*kochu*) leaves.
2. Boil in water for 4-5 mins to soften. Discard water and set aside.
3. Heat 2 tbsp mustard oil in a pan. Add green chillies, 1/2 tsp nigella seeds (*kalonji*) and let the fragrance emerge.
4. Add cleaned prawns, stir-fry on high for 2-3 mins. Sprinkle turmeric; cook until golden.
5. Add 2 tbsp black mustard paste (prepared by soaking and grinding 2-3 tbsp seeds, then straining). Cook on medium heat to blend.
6. Add boiled taro leaves, salt to taste, and 1/2 cup water. Cook for 2-3 mins, stirring.
7. Add slit green chillies, grated coconut, and tamarind water (or lime juice + sugar). Mix well.
8. Serve hot with steamed rice.

Tip: Drizzle an additional 1-2 tablespoons of raw mustard oil on top for a final punch!

Note: The above recipe has been shared by Mr Suddhabrata C, Wetlands Management for Biodiversity and Climate Protection project, Indo-German Biodiversity Programme, GIZ India



Documenting and sharing wetland stories can play an important role in their conservation.

Jalaj was an attempt to explore how wetlands are tied to the taste buds of a community or a region.

We thank all the generous contributors and hope that readers are inspired to observe more such linkages and try some of the recipes of 'wetland cuisine'.

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