

RECIPES OF MANGROVE PRODUCTS

Mrs. Vinaya V. Dhargalkar
Oceanis Society, Near GMC
Bambolim, Goa 403202

INTRODUCTION

Since ancient times, people living along the coastal region of the world used mangrove for timber, charcoal, firewood, and boat building, and bivalves, crabs, fish, and shrimp found within the mangroves were harvested for food. These resources have been used in various forms for the betterment and livelihood of the coastal inhabitants.

Various recipes have evolved over the years, since ancient times to use various components of mangroves to produce delicacies in many parts of the world. These recipes vary from place to place depending on the eating habits, cultures and climatic conditions. The recipes given here are still far from complete, however attempts have been made to present interesting mangrove recipes prepared with an Indian, particularly Goan taste in mind. You may choose to follow the recipes given here or modify or change them to suit your own individual taste.

EDIBLE MANGROVE FAUNA AND FLORA.

The major faunal constituents of the mangrove environment comprised of 105 species of fishes, 20 species of shellfishes and more than 225 species of crustaceans. Out of these, commercial important species of fishes such as Mullet (Shevte), Pearl spot (Kalundra), Cat fish (Sangat), Giant Perch (Chonak), Sand whiting (Muddosi), Snapper (Tamsa), Grouper (Gobro), Herrings (Patchali) etc., the edible bivalve (Tisryo /Khube) species such as *Anadara granosa* (Tambde khube), *Meretrix meretrix*, *M. casta* (Dhave khube), *Paphia malabarica* (Tisryo), *Villorita cyprinoides* (Kale khube) and *Perna viridis* (Shinani), *Polymesoda erosa* (Chikhalatle khube) inhabit mangroves. Clams/bivalves are known for their aphrodisiac qualities and versatility in many seafood recipes. Presence of mangrove clams is an indicator of healthy ecosystem.

Oysters (Kalva) such as *Crassostrea madrasensis* and *C. cucullata* are an important food source along the

coastal areas and oyster fisheries are an important industry where they are plentiful. Unlike most shellfish, oysters have a fairly longer shelf life; however, their taste becomes less pleasant as they age. Oysters must be eaten alive, or cooked alive. The shells of live oysters are normally tightly closed or snap shut given a slight tap. If the shell is open, the oyster is dead, and cannot be eaten, safely. Oysters can be eaten on the half shell, raw, smoked, boiled, baked, fried, roasted, stewed, canned, pickled, steamed or broiled or used in a variety of drinks. Eating can be as simple as opening the shell and eating the contents, including juice. Oysters are sometimes served on edible seaweed, such as brown algae.

There are different species of prawns (Sungta /Galmo) like *Penaeus indicus*, *P. merguensis* and *P. monodon*, while crab (Kurlyo) is represented by *Uca* sp., *Scylla serrata*, *Thalassina* sp. etc. The *S. serrata* is the large edible crab inhabits the muddy bottom of mangroves. It grows to a maximum size from 12 to 22 cm carapace width and 1.2 to 2 kg in weight. These are free living and distinguished by the polygonal markings present on all appendages. Crabs are good if they are caught during the full moon time. It is believed that during full moon time, the meat of the crab is the meatiest and juiciest, while other times the crab meat does not fully fill the shell.

Mangrove forests are home to a large variety of fishes. The important ecological role of mangrove is the detritus production which helps in feeding. Mangroves also provide breeding and nursery grounds for many marine, estuarine and brackish water juveniles of many commercially important shrimps and fishes.

Mangrove edible fern, *Acrostichum aureum* (Akur) grows up to 1 to 2 m tall, often inhabit soft muddy soil towards the land ward side. The young tender shoots are succulent and delicious and used in preparing steamed vegetable dishes.

CLEANING METHODS

Clams and mussels (Tiseryo/ Khube)

- 1) Keep clams or mussels in fresh water submerged for at least 30 to 40 minutes to get rid of any toxic material, if present.
- 2) Scrub the clams or mussels thoroughly under running water till they are free of sand and other adhered material.
- 3) Discard the clams or mussels that remain open or floating in water.
- 4) Open the clams with the help of knife.
- 5) Remove the meat and discard the shells.
- 6) If you are using green mussels i. e. Shinani, be sure to remove the hard thread that attaches to the substratum with the help of kitchen scissors or sharp knife.



Oysters (Kalva)

- 1) Clean oysters in running water and remove all sand/mud and any fouling organisms present.
- 2) A knife with short and stout blade is used to clean and cut open oysters.
- 3) Fresh oysters are those that are capable of tightly closing their shells.
- 4) Live oyster will close up and they are safe to eat. One that are open and does not close should be discarded.
- 5) Insert the blade with moderate force and vibration if necessary, at the hinge between two valves.
- 6) Twist the blade until there is a slight pop.
- 7) Slide the blade upward to cut the adductor muscles which hold the shell close.
- 8) Remove the meat and discard the shells.



Prawn and shrimps (Sungata /Galmo)

- 1) Wash prawns and shrimps thoroughly under running water.
- 2) Prawns and shrimps can be shelled easily with the fingers.
- 3) For large ones, kitchen scissors or knife can be used.
- 4) Cut off the head just near the gill.
- 5) Then insert sharp point of scissor under the shell and cut along the curved back to the tail.
- 6) Peel back the shell with your finger and gently remove the body from shell.
- 7) Now hold the tip of the tail with one hand and hold the prawn close to the tail with other hand and pull the tail along with the gut of the prawn.



Crabs (Kurlyo)

- 1) Wash crabs thoroughly under running water.
- 2) Put it on the table shell side down and cut or twist the claws.
- 3) Turn the crab upside down and pull the flap from crab's belly.
- 4) Turn the crab over and pull away main shell of the crab.
- 5) Remove the body of the crab from the shell.
- 6) Remove feather like gills from under the body and other unwanted material and discard them.
- 7) Crack shells of claws and limbs to allow flavour to get to the meat with the help of cracker or small hammer.
- 8) Crab meat is excellent for making crab meat soup.
- 9) Fresh live crabs are also good if steamed or boiled in their shell.



Fishes from mangroves

- 1) Select fish with bright red gills and clear, bulging eyes.
- 2) The body of the fish should be firm and springy to touch with shining skin and bright, close fitting scales.
- 3) Before scaling, soak the fish in water for few minutes and then scale the fish.
- 4) Mangrove fish are slimier hence it is difficult to hold

them in hand during cleaning.

- 5) Scale the fish by running the dull side of the knife backward from tail. Scrap the fish in short stroke and remove all the scales.
- 6) Wash fish thoroughly during and after scaling.
- 7) Now slit the belly of the fish open from the tail to the head.
- 8) Remove the gut and other unwanted parts and wash.
- 9) Now cut fish behind the gill, remove head, tail and fins.
- 10) Cut the pieces of the fish as required.



Akur (*Acrostichum aureum*), Mangrove fern

- 1) The tender shoots of Akur should be used for making vegetable.
- 2) Clean Akur with the water. Care should be taken to remove mangrove mud stuck into the curves of Akur shoots.
- 3) Cut Akur into small pieces.
- 4) Soak in water for some time and then use to prepare vegetable.



1. Fish Curry

Ingredients

- Half coconut grated
- One big onion cut into small pieces.
- Red chilli powder – one tbsp.
- Turmeric powder - half tsp.
- Coriander powder - half tsp.
- Pepper powder - quarter tsp.
- Tamarind – add two to three pods.
- Fish or clams or prawns – half Kg.

Preparation

- 1) Grind all ingredients into a paste.
- 2) Clean fish nicely, add salt and keep aside.
- 3) Add two spoons of oil to the saucepan and then add cut onion pieces.
- 4) Roast it into brown colour on low flame.
- 5) Add the paste and the water as required.
- 6) Let it boil, during the process of boiling stir gently.
- 7) Once boiled add fish after washing of salt and let it boil once again with gently stirring.
- 8) Add salt to the taste and put off the gas
- 9) Cover it for some time then serve.



2. Garam Masala Curry (Tondak)

For prawn (Sungta tondak) /clams (Khube ani Tisrya tondak) /crabs (Kurliya tondak) /oysters (Kalva tondak) (any one)

Ingredients

- Half coconut grated
- Two big onions sliced
- Garam masala powder– one tbsp., (masala with chilli, turmeric and all other masala ingredients).
- Garlic paste - quarter tsp.
- Ginger paste - quarter tsp.
- Tamarind – add two to three pods.
- Cleaned Prawn/clams/crabs/oysters – half kg.

Preparation

- 1) Fry sliced onions and grated coconuts till it becomes brownish colour and keep aside.
- 2) Add Gram masala to the ingredients.
- 3) Grind all ingredients into a paste.
- 4) Clean fish/clams/prawns/clams/ crabs/oysters add salt and keep aside
- 5) Add little ground paste and water and boil with clams/prawns/crabs/oysters with stirring gently.
- 6) Once clams/prawns/crabs/oysters are boiled add the remaining paste.



- 7) Add salt to the taste and put off the gas.
- 8) Add fresh coriander leaves.
- 9) One can also add potato pieces while boiling.
- 10) Keep it for some time then serve.

3. Garam Masala Clam Curry (Tisryache /Khubyache Tondak)

Ingredients

- Half coconut grated
- Onions - two big
- Other ingredients
- Red chilli powder – one tsp.
- Turmeric powder - half tsp.
- Coriander powder - half tsp.
- Pepper 5 to 6 grains
- Tamarind – two to three pods
- Oil – two tbsp.
- Salt – as per taste.
- Clams – half Kg.

Preparation

- 1) Onions and coconut to be kept buried in the burning charcoal or ash for half an hour till they become brownish black.
- 2) After half an hour remove coconut and onions from charcoal or ash and let get cool.
- 3) Roast red chillies, coriander grains and pepper till they become sufficiently roasted.
- 4) Clean onion and coconut off ash. Cut onion in to small pieces and grate coconut.
- 5) Grind this along with roasted chillies, pepper and coriander grains. To this add all other ingredients and make into paste and keep aside.
- 6) Clean clams as required. Clean them nicely by getting rid of unwanted material.
- 7) To little grounded paste add clams and boil.
- 8) Once cooked add remaining grounded paste and water as required.



- 9) Now boil this on low flame.
- 10) Add salt to the taste and put off the gas.
- 11) You can also add potato pieces while boiling.
- 12) Keep it for some time then serve.

4. Fried fish/ prawns/ Oysters/ crabs (Talile Nuste, Sungta, Kalva, Kurlyo)

Ingredients

- Chilli powder – one tbsp.
- Turmeric powder - half tsp.
- Tamarind paste – half tsp.
- Rawa - four tbsp.
- Salt – as per taste
- Oil – Two tbsp.
- Fish/prawns/ crabs/oyster - half kg.

Preparation

- 1) Clean the fish or prawn or oysters/ or crabs as described.
- 2) Add salt and keep it for some time
- 3) Then wash with water to get rid of salt
- 4) Add red chilli powder, turmeric powder, tamarind and add little salt to taste and keep for marinating.
- 5) Apply rawa on all side of fish or prawn or oyster or crab and fry it in oil on saucepan.
- 6) For crab - fry on all sides, turning the crab on all sides (add little garam masala along with other ingredients).
- 7) Let it fry till it is fully cooked.

5. Cutlets (Dangar)

Clams (Tisryache Dangar)/ Oyster (Kalvache Dangar), prawn (Sungtache Dangar)

Ingredients

- Chilli powder – one tbsp.
- Onions – two small
- Tamarind – two pods
- Turmeric powder - half tsp.
- Garlic paste – half tsp.
- Ginger paste - half tsp.



- Fresh coriander – as required
- Masala powder – one tbsp.
- Rawa - four tbsp.
- Bread crumbs
- Besan – four tsp.
- Salt – as per taste
- Oil – two tbsp.
- Prawns/ oysters/clams etc. - half kg.

Preparation

- 1) Clean clams or mussels or prawn or crabs as described.
- 2) Remove meat and add small cut pieces onions, ginger and garlic paste, garam masala powder, fresh coriander leaves and salt.
- 3) Mix nicely and keep it to marinate
- 4) Now make small balls, flatten it and apply bread crump or rawa on both side of the flattened ball.
- 5) or add besan to better and make balls, flatten it
- 6) Shallow fry on tawa.
- 7) Can be eaten with tomato ketchup or coconut chutney.

6. Prawns Pakoda (Bhuji)

Clams (Tiserya bhuji)/prawns(Sungata bhuji)

Ingredients

- Two medium size onions cut into small pieces
- Chilli powder – one tbsp.
- Turmeric powder – half tsp.
- Garlic paste – half tsp.
- Giger paste – half tsp.
- Gram masala powder – one tbsp.
- Fresh coriander leaves
- Besan - as required
- Salt – as per taste
- Oil – Two tbsp.
- Clams/prawns - half kg.

Preparation



Prawn pakoda



Prawn cutlets (Danger)

- 1) Clean clams or prawns in running water to get rid of sand and other material.
- 2) Remove meat and discard unwanted material.
- 3) Add small onion cut pieces, ginger and garlic paste, turmeric powder, garam masala powder, fresh coriander leaves, salt and meat of clam/prawn.
- 4) Mix nicely and keep it to marinate.
- 5) Now make small balls.
- 6) Make besan paste; dip clam or prawn balls in the besan paste. See that paste covers entire surface of the clam/prawn ball.
- 7) Deep fry in oil.
- 8) Can be eaten with tomato ketchup or coconut chutney.

7. Clam Green chilli (Tisryachi bhaji)

Ingredients

- Onion – two medium size cut into small pieces.
- Green chillies – six numbers.
- Grated coconut four tbsp.
- Turmeric powder – half tsp.
- Fresh Coriander leaves - as required
- Kokum - few pods
- Salt – as per taste
- Sugar – quarter tsp.
- Coconut oil – half tsp.
- Clams – half kg.

Preparation

- 1) Clean clams in running water to get rid of sand and other material.
- 2) Remove one shell of the clam and let other shell remain attached with meat, discard unwanted material.
- 3) Cut onions into small pieces, cut green chillies longitudinally into two halves, add few pods of kokum.
- 4) Boil cut onions, chillies and kokum pod with half clam shell with little water.
- 5) Let the clam meat get fully cooked.

6) Once it is cooked add grated coconut and let it boil for two minutes.

7) Now add Coriander leaves, little sugar, salt for taste and popo with little coconut oil.

8) Let it remain on the low flame for few minutes and then put off the flame

9) It is ready to serve.

8. Prawn Pulao (Sungta pulao); Clam (Tiserya pulao)

Ingredients

- 250 g of fine rice
- 250 g prawns/clam meat
- One large onion chopped and one (for paste)
- Cloves 3
- Cardamoms 3
- Cinnamon stick one
- Half lime
- Chilli powder to taste
- Half table spoon Turmeric
- Half tbsp. Coriander powder
- Half pod garlic

· Half inch .of ginger

· Salt to taste

Preparation

1) Grind to paste one onion, ginger and garlic.

2) Take two table spoon of oil in a vessel and add onion, ginger, garlic paste.

3) Fry for a little while and add chilli powder, turmeric powder and coriander powder.

4) To this add prawns/clam meat and fry till they are brownish.

5) To this add washed drained rice and fry for about 5 minutes.

6) Add sufficient water, lime juice and salt to taste and cook over low flame till water is absorbed and rice is cooked.

7) Pulao is ready to serve, garnish with coriander leaves

9. Catfish curry (Sagtache ambat tik)

Ingredients

- 250 g of catfish pieces
- Half coconut grated

Prawn pulao



- 2 tbsp. red chilli powder
- 1 tsp. turmeric powder
- 4 to 5 pepper corns
- Small ball of tamarind
- 4 to 5 Kokum
- Salt to taste

Preparation

- 1) Grind above ingredient coarsely
- 2) Apply this paste along with little water to fish pieces.
- 3) Add salt and four kokum pieces.
- 4) Keep this on low flame and let it cook
- 5) Catfish curry is ready to serve

10. Akur Curry (Akurache tondak)

Ingredients

- Akur - two bunch of tender shoots
- Garam masala – two tsp.
- Half coconut grated
- Onions – Two big
- Garlic pods – six
- Tamarind pods – small ball
- Turmeric powder – half tsp.
- Green chana - half a cup
- Jaggery – quarter tsp.
- Salt – as per taste.

Preparation

- 1) Clean tender shoots (Akur) in the running water



Catfish curry

carefully to get rid of mangrove mud and other attached debris, if any.

- 2) Soak green chana in water for 8 hrs.
- 3) Cut Akur in small pieces
- 4) Boil Akur pieces and little cut pieces of onions along with chana till they are fully cooked (you can also add dry or fresh prawns).
- 5) Roast onion pieces, garlic, turmeric powder and grated coconut till it becomes brownish.
- 6) Make a paste of the entire above ingredients in a mixer.
- 7) Add this paste to cooked Akur and let it get boiled.
- 8) When it is ready add little jaggery and salt to taste.
- 9) The curry is ready to serve.

11. Crab soup (Kurlycho soup)

Ingredients

- Crab meat – one or two crabs
- Onion – half, cut into small pieces
- Ghee or butter – one tsp.

Roasted crabs



- Salt – as per taste
- Pepper – quarter tsp.

Preparation

- 1) Boil crabs along with shell
- 2) Remove meat from the shell as mentioned.
- 3) In pan add ghee or butter with cut onion pieces and fry.
- 4) To this add water and crab meat.
- 5) Boil it for some time and add salt and pepper powder.
- 6) Corn powder can be added if required.
- 7) Soup can be served hot.

12. Roasted crab (Mungaratle kurlyo)

Ingredients

Crabs – as required

Preparation

- 1) Clean crabs thoroughly.
- 2) Roast them in hot ash till it gets nicely cooked.
- 3) Remove from the ash and clean the crabs.
- 4) Now remove meat from the shell.
- 5) You can eat the meat as it is or along with salad.

13. Kismur - Prawn/ Shrimp Kismur (Sukya Sungata Kismur)

Ingredients

- Dry prawns, Shrimps – one cup
- Onions – two cups
- Chilli powder or green chillies – two tsp. or two nos.
- Turmeric – half tsp.
- Half coconut grated
- Green coriander leaves – as required
- Salt – as per taste
- Sugar - quarter tsp.

Preparation

- 1) Fry cleaned shrimps/prawn in frying pan till they become crisp.



- 2) Keep them aside
- 3) Add a spoon of oil to sauce pan and add cut pieces of onions.
- 4) Fry till it gets light brown and then add chilli powder or green chillies, turmeric and finally add prawns after slightly pounding them.
- 5) Fry nicely and add grated coconut, coriander leaves, little salt and sugar and then serve.

14. Pickle – Prawn (Sungtache lonche)

Ingredients

- 250 g cleaned prawn (cut into small pieces)
- 5 tbsp. of oil
- 5 g mustard seeds
- One tsp. of methi (Fenugreek) seeds
- Pinch of Hing (Asafoetida)
- 5 g red chilli powder
- 2 g turmeric powder
- 4 tbsp. tamarind juice
- Salt to taste

Preparation

- 1) Add oil to sauce pan and add mustard, methi and asafoetida.
- 2) To this add red chili powder, turmeric and prawn pieces (If required add some oil).
- 3) Let it cook for some time on low flame.
- 4) When cooked add tamarind juice and salt.
- 5) This pickle can be used within 4 to 5 days or keep in freeze and use for 15 days.

