

DRIED FISH OF BANGLADESH

an illustrated book on dried fish



Mostafa A R Hossain, Ben Belton & Shakuntala H. Thilsted

A  Dried Fish Matters Publication

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DRIED FRESHWATER FISH



Punti (পুঁটি, ভাদি পুঁটি)
Tit Punti (টিট পুঁটি)
Chala Punti (চালা পুঁটি)

FRESHWATER BARB

Order - Cypriniformes

Family - Cyprinidae

Species - *Puntius sophore* (Hamilton, 1822)

Puntius ticto (Hamilton, 1822)

Puntius chola (Hamilton, 1822)

Max length : 20.0 cm

Max length : 12.5 cm

Max length : 15.0 cm



- Freshwater barbs rank the highest in quantity among all the freshwater fishes are dried in Bangladesh (nearly half of the total dried freshwater fish). Kishoreganj district is the leading producer of dried freshwater barb fish in Bangladesh.
- Fresh fish is washed with clean water and the scales as well as viscera may be removed or left intact.
- Women are engaged in cleaning, during which they collect the viscera and other fish organs. These are later boiled to extract oil, which is used to condition the motka (earthen pot) for producing fermented fish.
- Then the fish are washed again with clean water and salted for 10-15 minutes.
- The salted fish are laid out on the bamboo mats for sun drying.
- Drying takes 2-3 days for smaller ones and 3-4 days for larger fish individuals.
- After drying, the fish are stored in a shaded dry place until they develop a yellowish colour, which is preferred by both traders and consumers.
- Nearly half of the dried punti are used as raw materials to produce fermented punti (chapa or shidol).
- Dried and fermented punti has high demand in local as well as overseas markets.
- The product is imported into Bangladesh from India and Myanmar, and is also exported to northeast India, where it is used to make shidol.

Bele (বেলে-বাইলা)



TANK GOBY

Order - Perciformes

Family - Gobiidae

Species - *Glossogobius giuris* (Hamilton, 1822)

Max length : 50.0 cm



- Fresh bele is expensive with a high market demand, as their abundance in the wild has been gradually decreasing.
- Size of the fresh fish in the markets varies from a few centimeter to nearly half a meter.
- Fresh fish is washed with clean water. In the case of larger fish, the scales and viscera are removed.
- Then the fish are washed again with clean water and salted.
- The salted fish are laid out on the bamboo mats for sun drying.
- Fishes particularly the large ones are turned upside down several times a day to quicken the drying process.
- Drying takes 2-3 days.
- Dried bele has moderate demand in local market.
- The product is also imported from India and Myanmar.



Baim (সাল বাইম, বারো বাইম)

Tara Baim (তারা বাইম)

Guchi baim (গুচি, চিকরা)

FRESHWATER EEL

Order - Synbranchiformes

Family - Mastacembelidae

Species - *Mastacembelus armatus* (Lacepède, 1800)

Macrognathus aculeatus (Bloch, 1786)

Macrognathus pancalus (Hamilton, 1822)

Max length : 90.0 cm

Max length : 38.0 cm

Max length : 18.0 cm



- All three species of freshwater baim are expensive with high market demand, as their abundance in the wild has been gradually decreasing.
- Size of the fresh fish in the markets varies from 5-10 centimeter to nearly a meter.
- Fresh fish is washed with clean water. In the case of larger fish, the scales and viscera are removed.
- Then the fish are washed again with clean water and salted for 10-15 minutes.
- The salted fish are laid out on the bamboo mats for sun drying.
- Drying takes 2-3 days for smaller ones and 4-5 days for larger fish.
- Dried baim has high demand in local as well as overseas markets.
- The product, particularly dried tara baim, is also imported from India, Pakistan and Myanmar.



Batashi (বাতাসি, বাতাই)

INDIAN BATASHI

Order - Siluriformes
Family - Schilbeidae
Species - *Pseudeutropius atherinoides* (Bloch, 1794)

Max length : 15.0 cm



- Fresh batashi is expensive and in high demand in the market.
- Fresh fish is washed with clean water and salted for a few minutes.
- The salted fish are laid out on bamboo mats for sun drying.
- Drying takes 2-3 days.
- Dried batashi has moderate demand in local markets.
- The product is also imported from India and Myanmar.



Mola (মলা, মায়া)

MOLA CARPLET

Order - Cypriniformes

Family - Cyprinidae

Species - *Amblypharyngodon mola* (Hamilton, 1822)

Max length : 12.0 cm

- One of the most micronutrient-rich fish of Bangladesh, mola was abundant in the past but the biodiversity of the fish has decreased, and in recent times it has begun to be farmed through pond polyculture.
- Fresh fish is washed with clean water and salted.
- Then the fish are laid out on bamboo mats for sun drying.
- Drying takes 2-3 days.
- Dried mola has moderately high demand in local markets.



Katchki (কাচকি)

GANGES RIVER SPRAT

Order - Clupeiformes

Family - Clupeidae

Species - *Corica soborna* (Hamilton, 1822)

Max length : 5.0 cm



- One of the smallest fish of Bangladesh, katchki was abundant in the past, but the biodiversity of the fish has decreased in recent times. Katchki is mainly harvested from the Kaptai Lake.
- Fresh fish is washed with salted water carefully.
- Then the fish are laid out on bamboo mats for sun drying.
- Drying takes 1-2 days.
- Dried katchki has high demand both in local as well as overseas markets.
- The product is also imported from India and Myanmar.



Lomba Chanda (লম্বা চান্দা)

Gol Chanda (গোল চান্দা)

Lal Chanda (লাল চান্দা)

GLASSY PERCHLET

Order - Perciformes

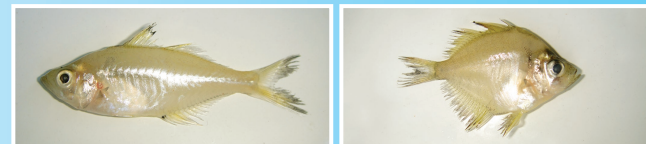
Family - Ambassidae

Species - *Chanda nama* (Hamilton, 1822)
Parambassis ranga (Hamilton, 1822)
Parambassis lala (Hamilton, 1822)

Max length : 11.0 cm

Max length : 8.0 cm

Max length : 4.0 cm



- All three species of chanda are classified under small indigenous species (SIS), and their abundance in the wild has been gradually decreasing.
- These small fish, characterized by a laterally flat body, strong bony skeleton, and fin rays, contain very little flesh.
- Fresh fish is washed with clean water.
- The cleaned fish are laid out on bamboo mats for sun drying.
- Drying takes 1-2 days.
- Dried chanda has moderate demand in local markets.

Tengra (টেংরা)
Bujuri (বুজুরি)
Gulsha (গুলশা)



RIVERINE CATFISH

Order - Siluriformes

Family - Bagridae

Species - *Mystus vittatus* (Bloch, 1794)
Mystus tengara (Hamilton, 1822)
Mystus cavasius (Hamilton, 1822)

Max length : 21.0 cm

Max length : 18.5 cm

Max length : 40.0 cm



- Fresh tengra is washed with clean water and viscera are removed.
- Then the fish are washed again with clean water and salted for 10-15 minutes.
- The salted fish are laid out on bamboo mats for sun drying.
- Drying takes 2-3 days for smaller fish and 3-4 days for larger fish.
- Dried tengra has moderate demand in local markets.
- The product is also imported from India and Myanmar.



Taki (টাকি, লাটি)

SPOTTED SNAKEHEAD

Order - Perciformes

Family - Channidae

Species - *Channa punctatus* (Bloch, 1793)

Max length : 31.0 cm



- During early winter, at the onset of fish drying season, large quantities of taki are caught as ponds and ditches begin to dry up.
- As part of the drying process, the fish is washed with clean water, and the scales as well as viscera are removed.
- Then the fish are washed again with clean water and salted.
- The salted fish are laid out on the bamboo mats for sun drying. Larger fish are flipped a couple of times a day to quicken the drying process.
- Drying takes 2-3 days.
- Dried taki has moderate demand and fetches a good price in local markets. It is also imported from India and Myanmar.



Potka (পটকা, ট্যাপা)

OCELLATED PUFFERFISH

Order - Tetraodontiformes

Family - Tetraodontidae

Species - *Tetraodon cutcutia* (Hamilton, 1822)

Max length : 15.0 cm



- Fresh potka contains a potent neurotoxin called tetrodotoxin (TTX) in its gonad, eggs, liver and skin. TTX concentration is highest during breeding season. As a result, many people die from eating fresh potka in Bangladesh.
- Fresh fish is washed with salted water.
- Then the fish are laid out on bamboo mats for sun drying.
- Drying takes 2-3 days.
- Dried potka has moderate demand in local markets. No death have been reported from eating dried potka.



Gojar (গজার, গজাড়)

GREAT SNAKEHEAD

Order - Perciformes

Family - Channidae

Species - *Channa marulius* (Hamilton, 1822)

Max length : 183.0 cm



- Gojar is the largest in size among the snakeheads found in Bangladesh. It is expensive and has a moderate demand in the market.
- Fresh fish is washed with clean water, and the scales and viscera are removed.
- Multiple deep incisions are made along the body of the fish with a sharp knife, while the head and tail remain intact.
- Then the fish are washed again with clean water and salted for several hours.
- The salted fish are laid out on bamboo mats for sun drying.
- Fishes are flipped several times a day to quicken the drying process.
- Drying takes 5-6 days.
- Dried gojar has high demand and fetches a good price in local as well as overseas market.

Boal (বোয়াল)

FRESHWATER SHARK

Order - Siluriformes
Family - Siluridae
Species - *Wallago attu* (Bloch and Schneider, 1801)

Max length : 240.0 cm



- Fresh boal is expensive and it has high demand in the market.
- Fresh fish is washed with clean water and viscera are removed.
- Multiple deep incisions are made along the body of the fish (particularly larger size fish) with a sharp knife, while the head and tail remain intact.
- Then the fish are washed again with clean water and salted for several hours.
- The salted fish are laid out on bamboo mats or hung from raised racks and poles, for sun drying.
- Fish, particularly the larger ones, are flipped several times a day to quicken the drying process.
- Drying takes 3-4 days.
- Dried boal has high demand and fetches a good price in local as well as overseas markets. It is also imported from Pakistan and Myanmar.



Air (আইর, আইড়)

LONG WHISKERED CATFISH

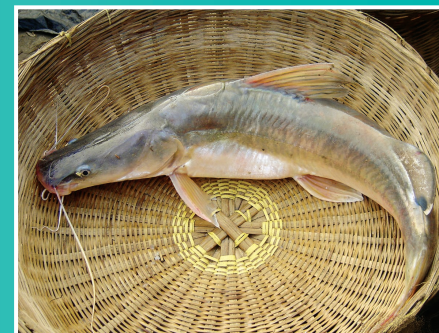
Order – Siluriformes

Family – Bagridae

Species – *Sperata aor* (Hamilton, 1822)

Max length : 180.0 cm

- Fresh *air* is comparatively expensive, and it has a high demand in the market.
- Fresh fish is washed with clean water and viscera are removed.
- Multiple deep incisions are made along the body of the fish (particularly larger size fish) with a sharp knife.
- Then the fish are washed again with clean water and salted for several hours.
- The salted fish are laid out on bamboo mats or hung from raised racks and poles, for sun drying.
- Fish, particularly the large ones, are flipped several times a day to quicken the drying process.
- Drying takes 3-4 days.
- Dried *air* has high demand and fetches a good price in local as well as overseas markets.



Tilapia (তিলাপিয়া)

NILE TILAPIA

Order - Cichliformes

Family - Cichlidae

Species - *Oreochromis niloticus* (Linnaeus, 1758)
Oreochromis mossambicus (Peters, 1852)

Max length : 60.0 cm

Max length : 39.0 cm



- Tilapia is an exotic fish and it is farmed all over Bangladesh under pond polyculture or monoculture systems.
- Fresh fish is washed with clean water and scales and viscera are removed.
- Then the fish are spread out on bamboo mats for sun drying.
- Drying takes 3-4 days.
- Dried tilapia has moderate demand in local markets.



Kuche Chingri (কুচে চিংড়ী)

SMALL PRAWN

Order - Decapoda
Family - Palaemonidae
Species - *Macrobrachium* sp.

Max length : 4.0 cm

- Small freshwater prawns are harvested in large quantities during the monsoon season.
- Fresh prawns are washed with clean water and spread out on bamboo mats for sun drying.
- Drying takes 1-2 days.
- Dried kuche chingri has moderate demand in local as well as overseas markets. Significant quantities of dried chingri are also imported from India and Pakistan.



DRIED MARINE FISH



Loitta (লইটা)

BOMBAY DUCK

Order - Aulopiformes

Family - Synodontidae

Species - *Harpadon nehereus* (Hamilton, 1822)

Max length : 40.0 cm

- In terms of quantity, loitta ranks highest among all marine fish dried in Bangladesh. It is caught in large volumes during the fishing season, and since fresh loitta does not fetch a good market price, it is typically dried.
- Fresh fish is washed with clean water and salted for an hour.
- Two fish are then tied together by their jaws so that they can be hung from bamboo poles for sun drying. Alternatively, they are simply laid out on bamboo mats to be dried in the sun.
- The fish dried on mats are flipped several times a day to quicken the drying process.
- Drying takes 2-3 days.
- Dried loitta has very high demand in local as well as overseas markets.



Chhuri (ছুরি)

RIBBON FISH, HAIRTAIL

Order - Perciformes

Family - Trichiuridae

Species - *Lepturacanthus savala* (Cuvier, 1829)
Eupleurogrammus muticus (Gray, 1831)

Max length : 100.0 cm

Max length : 87.0 cm



- By quantity, chhuri ranks the second only to loitta among all the marine fish dried in Bangladesh.
- Fresh fish is washed with clean water and salted for nearly an hour.
- Two fish are then tied together by their thread-like tail so that they can be hung from bamboo poles for sun drying. Alternatively, they are simply laid out on bamboo mats to be dried in the sun.
- Drying takes 2-3 days.
- Dried chhuri has very high demand in local as well as overseas markets.

Phaisa, Phewa (ফাঁইসা, ফাঁসা, ফেওয়া)

HAIRFIN ANCHOVY

Order - Clupeiformes

Family - Engraulidae

Species - *Setipinna phasa* (Hamilton, 1822)
Setipinna taty (Valenciennes, 1848)
Thryssa dussumieri (Valenciennes, 1848)
Thryssa hamiltonii (Gray, 1835)
Thryssa purava (Hamilton, 1822)

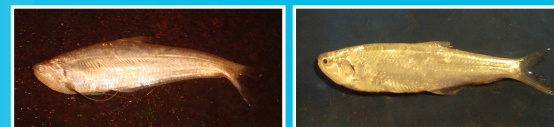
Max length : 40.0 cm

Max length : 25.0 cm

Max length : 15.0 cm

Max length : 27.0 cm

Max length : 16.0 cm



- In terms of quantity, hairfin anchovy ranks fourth among the marine fish dried in Bangladesh, after loitta, chhuri, and hichiri.
- Fresh fish is washed with clean water and salted for nearly half an hour.
- The salted fish are spread out on bamboo mats for sun drying or, in some cases on the sand or grass to be dried in the sun.
- Drying takes 1-3 days.
- Nearly 80% of the dried anchovy are sent to the fermented fish producers in Sylhet, Comilla and Mymensingh to be used as raw materials to produce fermented product (chapa or shidol).
- Fermented phaisa has high demand in local market as well as overseas markets.
- Dried phaisa is also imported from India and Myanmar.

Hichri, Niala, Chela (হিচিং, ইচিরি, নাইলা, চেলা)

WHITE SARDINE

Order - Clupeiformes

Family - Clupeidae

Species - *Esculosa thoracata* (Valenciennes, 1847)

Family - Engraulidae

Species - *Encrasicholina* sp.

Species - *Stolephorus* sp.

Max length : 10.0 cm

Max length : 12.0 cm

Max length : 12.0 cm



- Hichri are caught in large quantities during the fishing season and, by volume, rank as the third most dried fish in Bangladesh after loitta and chhuri.
- The fish are washed and salted for 10-15 minutes.
- Then the salted fish are spread out on bamboo mats for sun drying or, in some cases on the sand or grass to be dried in the sun.
- Drying takes 2-3 days.
- Dried hichri has high demand in local as well as overseas markets. Low quality hichri is also used to produce fish meal.
- Dried hichri is also imported from India and Myanmar.



Olua (ওলুয়া, আমাদি, সুন্দরী)

GRENADIER ANCHOVY

Order - Clupeiformes

Family - Engraulidae

Species - *Coilia dussumieri* (Valenciennes, 1848) Max length : 20.0 cm
Coilia neglecta (Whitehead, 1967) Max length : 17.0 cm
Coilia ramcarati (Hamilton 1822) Max length : 25.0 cm

- Fresh olua are washed with clean water and salted for 10-15 minutes.
- The salted fish are spread out on bamboo mats for sun drying.
- The fish are turned flipped several times a day to quicken the drying process.
- Drying takes 2-3 days.
- Dried olua has high demand in local as well as overseas markets.
- Dried olua is also imported from India and Myanmar.



Chamila (চামিলা)

ILISHA, SARDINEA

Order - Clupeiformes

Family - Clupeidae

Species - *Ilisha megalopectera* (Swainson, 1839)
Ilisha melastoma (Bloch & Schneider, 1801)
Ilisha filigera (Valenciennes, 1847)

Family - Dussumieriidae

Species - *Dussumieria acuta* (Valenciennes, 1847)

Max length : 36.5 cm

Max length : 22.0cm

Max length : 22.0 cm

Max length : 20.0 cm



- Fresh fish are washed with clean water and viscera are removed.
- Then the fish are salted for about an hour.
- The salted fish are laid out on bamboo mats for sun drying.
- Drying takes 2-3 days.
- Dried chamila has high demand in local as well as overseas markets.
- Dried chamila is also imported from India, Pakistan and Myanmar.



Chewa (চেওয়া)

EEL GOBY

Order - Perciformes

Family - Gobiidae

Species - *Apocryptes bato* (Hamilton, 1822)
Odontamblyopus rubicundus (Hamilton, 1822)
Trypauchen vagina (Bloch & Schneider, 1801)
Taenioides cirratus (Blyth, 1860)

Max length : 26.0 cm

Max length : 33.0 cm

Max length : 22.0 cm

Max length : 22.0 cm

- Fresh chewa is washed with clean water.
- Then the fish are salted for 10-15 minutes.
- The salted fish are spread out on bamboo mats for sun drying.
- Fishes are flipped several times a day to quicken the drying process.
- Drying takes 2-3 days.
- Dried chewa has moderate high demand in local markets.
- Dried chewa is also imported from India, Pakistan and Myanmar.



Poa, Poma (পোয়া, পোমা, ফোফা)

CROAKER

Order - Perciformes

Family - Sciaenidae

Species - *Johnius coitor* (Hamilton, 1822)
Macrospinoso cuja (Hamilton, 1822)
Otolithoides pama (Hamilton, 1822)
Panna microdon (Bleeker, 1849)
Otolithoides pama (Hamilton, 1822)

Max length : 16.0 cm

Max length : 152.0 cm

Max length : 160.0 cm

Max length : 27.0 cm

Max length : 160.0 cm

- Fresh croaker are washed with clean water and salted for half an hour.
- The salted fish are laid out on bamboo mats for sun drying.
- The fish are flipped several times a day to quicken the drying process.
- Drying takes 2-3 days.
- Dried croaker has moderately high demand in local as well as overseas markets.
- Dried croaker is also imported from India and Myanmar.



Kukurjib (কুকুর জিব)
Bansh Pata (বাঁশ পাতা)

BENGAL SOLE, ORIENTAL SOLE

Order - Pleuronectiformes
Family - Cynoglossidae
Species - *Cynoglossus* sp.
Paraplagusia sp.

Max length : 45.0 cm

Max length : 30.0 cm

- Fresh sole is a low value group of fish with relatively low demand in local markets.
- Fresh sole are washed with water, but the scales and viscera are not removed.
- The fish are laid out on bamboo mats or, in some cases, on sand or grass for sun drying.
- Drying takes 2-3 days for smaller fish and 3-4 days for larger fish.
- Dried sole has high demand among the ethnic tribal communities of Chattogram and Cox's Bazar.



Bongsi (বংশী, লম্বা লেজ)

RED CORNETFISH

Order - Syngnathiformes

Family - Fistulariidae

Species - *Fistularia petimba* (Lacepède, 1803)

Max length : 200.0 cm



- Fresh cornetfish is washed with clean water.
- Two fish are then tied together around their elongated jaws using plastic twine so that they can be hung from bamboo poles for sun drying. Alternatively, they are simply laid out on bamboo mats to be dried in the sun.
- Drying takes 2-3 days.
- Dried cornetfish has moderate demand in local market.



Potka (পটকা, পোটকা, ট্যাপা)

PUFFERFISH

- Order** - Tetraodontiformes
Family - Tetraodontidae
Species - *Lagocephalus spadiceus* (Richardson, 1845)
Dichotomyctere fluviatilis (Hamilton, 1822)
Chelonodon patoca (Hamilton, 1822)
Takifugu oblongus (Bloch, 1786)

Max length : 40.0 cm
 Max length : 17.0 cm
 Max length : 38.0 cm
 Max length : 40.0 cm



- Like the freshwater species, marine potka also contains potent neurotoxin called tetrodotoxin (TTX) in its gonads, eggs, liver, and skin. TTX concentration is highest during the breeding season. In Bangladesh every year, people die from eating fresh potka.
- The large fish are cut dorsoventrally with a sharp knife, leaving the sides of the fish attached along the back.
- Then the fish are laid out on bamboo mats for sun drying.
- Fish are flipped several times a day to quicken the drying process.
- Drying takes 3-4 days.
- Dried potka has moderate demand in local markets. No deaths are reported from eating dried potka.

Chos (চোষ, শোষক)

SHARKSUCKER

Order - Carangiformes

Family - Echeneidae

Species - *Echeneis naucrates* (Linnaeus, 1758)

Max length : 110.0 cm



- Fresh sharksucker is washed with clean water and salted for half an hour.
- The salted fish are laid out on bamboo mats, sand, or grass for sun drying.
- Drying takes 3-4 days.
- Dried sharksucker has moderate demand in local markets.



Rupchanda (রূপচান্দা, ফলিচান্দা)

POMFRET

Order - Scombriformes

Family - Stromatidae

Species - *Pampus chinensis* (Euphrasen, 1788)
Pampus argenteus (Euphrasen, 1788)
Parastromateus niger (Bloch, 1795)

Max length : 40.0 cm

Max length : 60.0 cm

Max length : 75.0 cm

- Fresh pomfret has high demand and value in local markets.
- Fresh fish are washed with clean water and their viscera are removed.
- The fish are cut dorsoventrally with a sharp knife, leaving the sides of the fish attached along the back, and salted for an hour.
- Then the fish are laid out on bamboo mats for sun drying.
- The fish are flipped several times a day to quicken the drying process.
- Drying takes 3-4 days.
- Dried pomfret has high demand in local as well as overseas markets.



Taposhi (তাপসী, তপসে)

PARADISE THREADFIN

Order - Perciformes

Family - Polynemidae

Species - *Polynemus paradiseus* (Linnaeus, 1758) Max length : 30.0 cm

- Fresh threadfin is a moderately high value fish in the local markets.
- Fresh fish is washed with clean water and salted for 10-15 minutes.
- Then the fish are laid out on bamboo mats for sun drying.
- Drying takes 1-3 days.
- Dried threadfin has high demand in local as well as overseas markets.



Tak Chanda (টাক চান্দা)

PONYFISH

- Order** - Perciformes
Family - Lenognathidae
Species - *Gazza minuta* (Bloch, 1795)
Leiognathus ruconius (Hamilton, 1822)
Deveximentum insidiator (Bloch, 1787)
Photopectoralis bindus (Valenciennes, 1835)
Leiognathus equula (Forsskål, 1775)

Max length : 15.0 cm
 Max length : 8.0 cm
 Max length : 11.0 cm
 Max length : 11.0 cm
 Max length : 28.0 cm



- Fresh ponyfish is a moderately high value fish in local markets.
- Fresh fish is washed with clean water and salted for 10-15 minutes.
- Then the fish are laid out on bamboo mats for sun drying.
- Drying takes 1-3 days.
- Dried ponyfish has moderately high demand in local as well as overseas markets.



Futki Chapra/Chapra Kori (ফুটকি চাপড়া, চাপড়া কড়ি)

TALANG QUEENFISH

Order - Perciformes

Family - Carangidae

Species - *Scomberoides commersonianus*
(Lacepede, 1801)

Max length : 120 cm

- The fish is washed in clean water.
- The fish is cut by a clean knife and the viscera, gonads, and gills are removed.
- The fish is split dorso-ventrally and spread open.
- Several slices are made on the thick flesh from the head to tail region with a sharp knife to quicken the drying process.
- Fish are hung from drying scaffold made of bamboo poles and bars.
- Drying takes 5-7 days.
- Dried talang queenfish has moderate demand in local as well as overseas markets.



Kamila (কামিলা, কাইলা)

CONGER EEL

Order - Anguilliformes
Family - Muraenesocidae
Species - *Congresox talabon* (Cuvier, 1829)
Congresox talabonoides (Bleeker, 1853)

Max length : 80.0 cm
 Max length : 250.0 cm



- Fresh conger eel is a low value fish in local markets.
- Fresh fish is washed with clean water and viscera may or may not be removed.
- Then the fish are sliced dorsoventrally several times keeping the head and tail attached and washed again with clean water, and salted for an hour.
- The salted fish, particularly the larger ones are hung from horizontal bamboo poles inserting a small bamboo made structure inside the fish to maintain its shape or simply laid out on bamboo mats for sun drying.
- Drying takes 3-4 days.
- Dried kamila has high demand in local market, especially to tourists. It is also in high demand in overseas markets among the Bangladesh diaspora. As kamila is similar to dried freshwater boal, retailers try to deceive consumers by substituting dried kamila for freshwater boal, which is a high value dried fish.



Kata, Ghagla (কাটা, ঘাগলা, কাটারুখা)

MARINE CATFISH

Order - Siluriformes

Family - Ariidae

Species - *Arius gogora* (Hamilton, 1822)

Nemapteryx nenga (Hamilton, 1822)

Nemapteryx caelata (Valenciennes, 1840)

Batrachcephalus mino (Hamilton, 1822)

Osteogeneiosus militaris (Linnaeus, 1758)

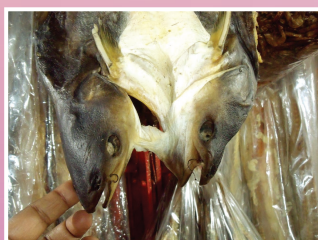
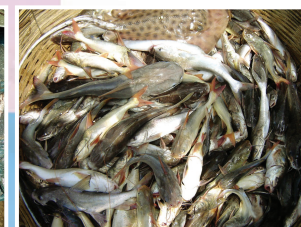
Max length : 90.0 cm

Max length : 30.0 cm

Max length : 47.0 cm

Max length : 25.0 cm

Max length : 42.0 cm



- Fresh marine catfish is a high value fish in local markets.
- Fresh fish is washed with clean water and viscera are removed.
- Then the large fish are cut dorsoventrally with a sharp knife, leaving the sides of the fish attached along the back, washed again, and then salted for an hour.
- The salted fish are laid out on bamboo mats for sun drying.
- The fish are flipped several times a day to quicken the drying process.
- Drying takes 3-4 days.
- Dried marine catfish has moderate demand in local as well as overseas markets.



Sagor koi (সাগর কই)

ATLANTIC TRIPLETAIL

Order - Perciformes

Family - Lobotidae

Species - *Lobotes surinamensis* (Bloch, 1790)

Max length : 110.0 cm

- Tripletail is a high value fish in local markets.
- Fresh fish is washed with clean water and viscera and scales are removed.
- Then the fish are sliced dorsoventrally several times keeping the head and tail attached and washed again with clean water and salted for an hour.
- The salted fish are hung from horizontal bamboo poles for sun drying inserting a small bamboo made structure inside the fish to maintain its shape.
- Drying takes 3-4 days.
- Dried sagor koi has high demand in local markets, especially by tourists. It is also in high demand in overseas markets among the Bangladesh diaspora.



Shapla Pata (শাপলা পাতা, কামট, হাউস)

STINGRAY

- Order** - Myliobatiformes
Family - Dasyatidae
Species - *Himantura fluviatilis* (Hamilton, 1822)
Maculabatis gerrardi (Gray, 1851)
Himantura uarnak (Gmelin, 1789)
Brevitrygon walga (Müller & Henle, 1841)
Gymnura poecilura (Shaw, 1804)

Max length : 100.0 cm
Max length : 200.0 cm
Max length : 200.0 cm
Max length : 45.0 cm
Max length : 82.0 cm



- Fresh stingray is a low value fish in local markets.
- Fresh fish are washed in clean water, viscera are removed, and large fish are cut into pieces and salted for an hour.
- Salted fish are laid out on bamboo mats, sand, or grass for sun drying.
- Fish are flipped several times a day to quicken the drying process.
- Drying takes 3-4 days.
- Dried sting ray has high demand in local markets by the tribal communities of Chattogram and Cox's Bazar.

Hangor (হাঙ্গর, কামট)

SHARK

Order - Carcharhiniformes

Family - Carcharhinidae

Species - *Carcharhinus melanopterus* (Quoy & Gaimard, 1824)

Glyphis glyphis (Müller & Henle, 1839)

Scoliodon laticaudus (Müller & Henle, 1838)

Family - Rhinobatidae

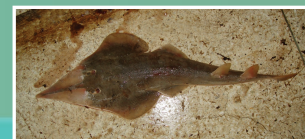
Species - *Glaucostegus granulatus* (Cuvier, 1829)

Max length : 200.0 cm

Max length : 100.0 cm

Max length : 100.0 cm

Max length : 280.0 cm



- Fresh shark is a low value fish in local markets.
- Fresh fish are washed in clean water, viscera are removed, and large fishes are cut into pieces and salted for an hour.
- Salted fish are laid out on bamboo mats, sand, or grass for sun drying.
- Fish are flipped several times a day to quicken the drying process.
- Drying takes 3-4 days.
- Dried shark has high demand in local markets by the tribal communities of Chattogram and Cox's Bazar.



Chhoto Icha (ছোট ইচা)

MARINE SMALL SHRIMP

Order - Decapoda
Family - Penaeidae
Species - *Metapenaeus tenuipes* (Kubo, 1949)
Order - Sergestidae
Species - *Acetes* sp.
Family - Alpheidae
Species - *Alpheus euphrosyne* (De Man, 1897)
Family - Atyidae
Species - *Caridina* sp.

Max length : 7.0 cm
Max length : 2.5 cm
Max length : 2.5 cm
Max length : 3.5 cm

- Marine small shrimp is a moderately high value product in local markets.
- Fresh shrimp is washed with clean water and salted for 10-15 minutes.
- The salted shrimps are spread out on bamboo mats for sun drying.
- Drying takes 1-3 days.
- Dried shrimp has high demand in local as well as overseas markets.



Boro Icha (বড় ইচা)

MARINE LARGE SHRIMP

Order - Decapoda

Family - Penaeidae

Species - *Penaeus monodon* (Fabricius, 1798)
Penaeus indicus (Milne-Edwards, 1837)
Metapenaeus monoceros (Fabricius, 1798)
Penaeus semisulcatus (de Haan, 1844)
Parapenaeopsis stylifera (Milne-Edwards, 1837)

Max length : 34.0 cm

Max length : 18.0 cm

Max length : 15.0 cm

Max length : 18.0 cm

Max length : 14.5 cm



- Marine large shrimp is a high value product in local markets.
- Fresh shrimp is washed with clean water and salted for 10-15 minutes.
- The salted shrimp are spread out on bamboo mats for sun drying.
- Drying takes 2-3 days.
- Dried shrimp has high demand in local as well as overseas markets.



Kakra (কাঁকড়া, কাঁড়া)

MARINE CRAB

Order - Decapoda

Family - Portunidae

Species - *Charybdis feriata* (Linnaeus, 1758)
Charybdis variegata (Fabricius, 1798)
Portunus pelagicus (Linnaeus, 1758)
Portunus sanguinolentus (Herbst, 1783)

Crucifix crab
Swimming crab
Blue swimming crab
Three-spot swimming crab

Max length : 20.0 cm
Max length : 3.0 cm
Max length : 20.0 cm
Max length : 20.0 cm



- During the fishing season, marine crabs are sometimes caught in huge quantities as bycatch.
- The crabs are dried on sand and grass without any washing or removing any parts.
- Drying takes 2-3 days.
- Dried crab doesn't have a market for human consumption.
- After drying, the crabs are crushed and mixed with other low value fish and shellfish to prepare fishmeal.
- Dried and crushed crab has national demand as fish meal to be used in fish feed in the growing aquaculture industry of Bangladesh.

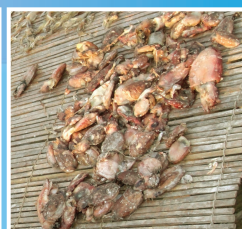
Cuttlefish (কাটলফিশ), Squid (স্কুইড/পেরকি)

CUTTLEFISH & SQUID

Order - Teuthida
Family - Loliginidae
Species - *Loligo edulis* (Hoyle, 1885)
Order - Sepiida
Family - Sepiidae
Species - *Sepia aculeata* (Van Hasselt, 1835)

Max length : 50.0 cm

Max length : 23.0 cm



- Fresh cuttlefish and squid are low value products in local markets.
- Fresh cuttlefish and squid are laid out on bamboo mats, sand, or grass for sun drying.
- Drying takes 2-3 days.
- Dried cuttlefish and squid (locally known as *perki*) have high demand in local markets by the ethnic communities of Chattogram and Cox's Bazar.

DIFFERENT FISHES & SHELLFISHES

- During fishing, fishermen always try to preserve high value fish using ice. Normally, they do not put ice on their bycatch, which consists of small fish, crabs, mollusks, damaged fish, and other miscellaneous low value species. On arrival at the landing centre, fish meal producers purchase the low value, rotten, and degraded catch.
- Bycatch is dried on sand and grass without any washing or processing.
- Drying takes 2-3 days.
- After drying, the dried bycatch is ground into fish meal.
- Fish meal is in high demand nationally to be used for fish feed in the growing aquaculture industry of Bangladesh.





FERMENTED FISH



FERMENTED BARB AND ANCHOVY

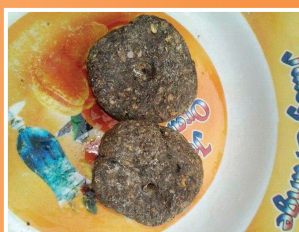
The major fish used for fermented fish have been three small puti – pool barb, *Puntius sophore* (bhadi/jat puti), ticto barb *P. ticto* (tit puti) and swamp barb, *P. chola* (chala puti), and to lesser extent, two others: puntio barb, *P. puntio* (puti) and rosy barb, *P. conchoni* (kanchon puti). However, the abundance of puti has decreased over the years, and the price has increased. As a result, in the last 10-15 years, relatively cheaper fermented fish products have been produced from four marine anchovies – *Setipinna phasa*, *S. taty*, *Thryssa purava* and *T. hamiltonii* (Family: Engraulidae, Order: Clupeiformes, all four are locally known as Phaisa).



- Dried punti or phaisa are soaked in bamboo basket in river water for 30-40 minutes.
- After soaking, punti or phaisa are dried on bamboo mats.
- Motkas (earthen jar) that have been conditioned with punti oil for 2-3 days are carefully placed on the floor of the fermentation yard. They are stabilized with old jute bags so that they can be easily packed with punti.
- Motka *varanis* (jar fillers) fill the jars with either punti or phaisa by packing the fish into the the motka with their feet so as to force out all air trapped in the pot and make it airtight. Each motka takes 45-60 minutes to fill.
- After filling, the neck of the motka is filled with crushed punti or phaisa and sealed with a plastic sheet. Some fillers instead prefer to use a thin layer of mud before sealing the motka with plastic sheet.
- The filled and sealed motkas are then half-buried in the ground or left on the floor of a dark room for 3-6 months until the characteristic colour and flavour appear.
- *Chapa*, the name of the final fermented product, has high demand in local as well as overseas markets and it fetches a good price.

FERMENTED FISH, MIXED WITH VEGETABLE AND SPICE

- Shidol is the traditional food of people from the northern district of Rangpur.
- First, mola, punti and darkina fish are washed carefully with clean water and then dried for 5-6 days.
- Dried fishes are then ground and mixed with mashed *arum* (taro) and arum stems, and mixed with other ingredients like salt, pepper, ginger, and garlic.
- In some areas, spinach and jute leaves are also mixed into the mixture along with baking soda and jackfruit seeds.
- After thoroughly mixing together all ingredients, the mixture is formed into mounds which are coated with a layer of turmeric and mustard oil.
- Finally, the mounds are sun-dried for 5-6 days.
- The dried shidol can be kept for 12-18 months and many people preserve them in clean ash.
- Shidol has high demand in local markets of Rangpur.



FERMENTED SMALL SHRIMP

- Two main species of small shrimps, namely *Asetes* sp. (locally known as 'ming') and *Mysid* sp. (locally known as 'maishi') are used in nga-pi production. However, the mixture contains fish larvae, small fish, other shrimps, sea snails and cuttlefish or other mollusks.
- The catch is not iced or salted onboard the fishing boat. Small shrimps are carried in bamboo baskets or via van from the boat.
- A small amount of salt is spread over a mat on top of which is spread a layer of shrimp, followed by another layer of salt. The proportion of salt to shrimp is about 2.5 to 5%.
- The shrimp-salt layers are dried in the sun for a day before being ground and the dried for another two days.
- In its final form, nga-pi paste is deep gray to black in colour.
- Small blocks of nga-pi are wrapped in tree leaves and kept in bamboo baskets to be aged. Nga-pi prepared in this way can be kept for six months.
- The main population involved in nga-pi production, trade, and consumption are from the Rakhine ethnic group in Cox's Bazar, Chattogram, Rangamati, Bandarban, Ramu, and Patuakhali.



Lona Ilish (লোনা ইলিশ)

SALTED HILSA



- *Lona Ilish* is prepared mainly with the two species *Tenuulosa ilisha* and *Tenuulosa toli*.
- Fresh fish are descaled and sometimes de-headed, then cut diagonally across the body of the fish. Viscera are not removed.
- The sliced fish are salted at a ratio of 4 to 1, fish to salt and then layered in bamboo baskets with salt between layers of fish.
- Then full baskets of hilsa are left for 48 hours in the dark.
- Hilsa are then removed from the baskets and tightly packed in tin containers with a saturated brine. The containers are sealed and stored in the dark for 4-6 months for fermentation until the desired flavour develops.
- In most cases the gonads of hilsa are salted/fermented separately.
- The product has moderately high demand in Bangladesh and overseas.
- The product is also exported to Nepal and India.



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