

HARVESTING , POST HARVESTING TECHNOLOGY AND MARKETING

PROCESSING OF CEPHALOPODS

IV SEMESTER MSc ZOOLOGY

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PROCESSING OF CEPHALOPODS

Processing of cephalopods- Cuttle fish and squid

- Squids , cuttlefishes and octopuses are three major economically important groups under cephalopoda, Mollusca.
- They are soft bodied invertebrates which feed upon shrimps , crabs , fishes etc.
- They are voracious feeders with fast growth rate .
- Squid and cuttlefish have ten circumoral arms , eight of which are shorter and two are longer .
- The tentacles are retractable (can be withdrawn into special pouches) in cuttlefish , whereas it is not so in squid .
- Squids have a cylindrical elongate body with a chitinous internal shell .
- Cuttlefish fish is characterized by a calcified internal bone .
- Both of them are strong swimmers and they can move forward and

Loligo duvauceli



SQUID

- Squids are characterized by elongate , torpedo shaped body with marginal or terminal fins which are continuous
- An inner transparent shell known as 'pen' is present .
- They are marine , either neretic or oceanic .
- About six species or neretic squids are caught along Indian coasts of which Indian squid ,Loligo duvauceli is the most dominant one .

A few commercially important squids :-

A , Neretic squids – within 200 M. depths

Scientific Name	coasts
1, Loligo duvauceli	All along Indian coasts
2, Loligo uyii	Chennai and Vishakhapatnam
3, Doryteuthis investigatoris	Vizhinjam Vishakhapatnam
4, Loliolus investigatoris	All along Indian coasts

B, Oceanic squids – beyond 200 m depth

Scientific name	Coasts
1, <i>Symplectoteuthis oualaniensis</i>	Distributed in the oceanic water of EEZ
2, <i>Ommastrephis bartrami</i>	Distributed in the oceanic water of EEZ

CUTTLE FISH

- The body of cuttlefish is dorso-ventrally flattened .
- The fins are lateral and are separated at the posterior end of the body .
- A calcareous shell known as the ‘cuttlebone’ is

- They are generally bottom dwellers occurring mostly within the 200 M depth zone .
- About six species of cuttlefishes occur in the commercial catches along Indian coasts . 'sepia pharaonis and sepia aculeata are the two important species .

Sepia pharaonis



A few commercially important cuttlefishes:-

Scientific name	Coasts
1, <i>Sepia pharaonis</i>	All along the Indian coasts
2, <i>Sepia aculeata</i>	All along the Indian coasts
3, <i>Sepia elliptica</i>	Veraval and Kochi
4, <i>sepilla inermis</i>	All along the Indian coasts

Handling of cephalopods :-

- At sea:-
- Fresh cephalopods are extremely perishable and should be handled with great care right from the catch.
- The material should never be exposed to direct sunlight or to the drying effects of winds , but cooled to the lowest possible temperature with the help of ice.
- It is better to avoid direct contact with melting ice since many soluble components as well as protein leach in to the ice-melt water,
- The pigments are also spread throughout the squid body by direct with ice.
- Refrigerated seawater can also be employed for this purpose .

When boxes are used for keeping cephalopods, they should be properly iced and not overfilled .so that unloading the catch would worth to segregate the catch to different varieties,.

It is also essential to maintain a high standard of cleanliness on deck , inside the fish holds etc .

These are the important measures to be taken on handling the cephalopods at sea. Its is also very much necessary to take care of handling the material on shore also.