



Tropical Shrimps

The term 'tropical shrimps' comprises a large group of shrimps of various species that originate from South America, Africa and Asia - some from fishery (wild catch) and some from aquaculture. Some twenty species are sold on the European markets, and they belong to the infraorder Penaeidea. The commercial species mainly form part of the Penaeidae and Solenoceridae families. This entire group of shrimps is known scientifically as Penaid shrimps, whilst in the trade these shrimps are often known as 'pink shrimps' in their peeled form.

The best-known species is the African-Asiatic giant tiger prawn (*Penaeus monodon*) that is known internationally by the name of "Black Tiger". Another, originally South American, farmed tropical-shrimp species that is marketed frequently is the Pacific white shrimp (*Litopenaeus vannamei*).

Another well-known species is the farmed freshwater shrimp (*Macrobrachium rosenbergii*) that is often marketed headless shell-on as 'Scampi'. This species belongs to the Caridea infraorder, just as the North Sea shrimp and the Norwegian shrimp.

Then there are many species that are caught, but whose specific species is unknown. In terms of the Dutch market, this concerns a number of species from the *Penaeus*, *Metapenaeus*, *Parapanaeopsis* genus that are marketed cooked and peeled. Once cooked and peeled, these species look so alike that the trade considers them to be interchangeable.

Social debate

The above made clear that the 'tropical shrimp' comprises many different species. First of all, it is important to make a distinction between shrimps from the wild catch and farmed shrimps.

However, the social debate on tropical shrimps often does not make any distinction between these different types.

Wild catch

Shrimps occur in all seas and live in different places - sandflats, rocky coasts, coral reefs, etc. However, only a small group of the tropical-shrimp species is fished. They are the larger species that can be caught on the flat seabed with trawlers. This type of fishery occurs by means of trawlers that use demersal trawl nets, which are nets that fish near the seabed. Shrimps are on the seabed and are good swimmers. The trawlers are significantly lighter than the shrimp trawls that fish for North Sea shrimps and they much less disturb the seabed. This is linked to the fact that the North Sea shrimp digs itself in as part of its flight, whilst the Penaeide shrimp simply swims away.

One of the characteristics of fish and shrimps in tropical seas is that they are able to spawn all year round. The meat quality is hardly affected by spawning and tropical-shrimp fishery does not have a closed season during spawning. The product quality is only affected by the periodic moulting of the shrimps. Most countries do have closed seasons, but largely because of the rainy seasons.

Shrimps live on the seabed and are relatively small, and therefore fishery takes place with trawl nets with small mesh sizes. The negative aspects that are associated with that include a high bycatch, stirring the seabed, and high fuel consumption.

Most stocks of tropical shrimps are heavily fished, but it is difficult to speak of overfishing. The strong reproduction potential, the very rapid generation cycle, and the fact that shrimps are so low down the food chain - they mainly eat sunken algae - ensure a quick recuperation of the stocks. From a fishery-yield point of view it could be argued that many stocks are overfished, but this cannot be argued from the point of view of preserving the species.

The bycatch is the main negative objection that is associated with catching tropical shrimp. Many shrimp fisheries recognise this and shrimp trawls are fitted with a turtle escape provision or other provisions that reduce the bycatch. The bycatch is not by definition discarded, i.e. put overboard. Many of these fisheries take the whole catch and the smaller fish species that do not have any immediate commercial value are used in low-quality applications.

WOULD YOU LIKE TO KNOW MORE?

If you would like to know more about shrimps and/or the measures taken by the Dutch fishery sector, please visit www.pvis.nl.



Currently, there are no MSC certified fisheries for tropical shrimps, as these fisheries do not yet comply with the principles of ecologically responsible fishery. This explains why wild-catch tropical shrimps are in the 'red' sector of many consumer guides. At the moment, there are ongoing projects in South America and Asia to bring about an improvement within the entire shrimp-fishery chain.

Aquaculture

The quantities of shrimps that are farmed worldwide are almost as great as the landings of the global shrimp fishery. The process can be described in the following broad outlines. The larvae from older animals in captivity are grown out and planted in ponds on the coast. The shrimps are then fed with special shrimp feed. The ponds are aerated and have recirculation systems to remove waste and residues. The grow-out period takes four to six months per cycle. The yield per pond runs from a few tonnes to more than ten tonnes per hectare per year.

The social debate on shrimp farming is one of the most marked within all fish products. It is alleged that the construction of ponds on the coast is often at sites that were acquired illegally at the expense of the local population or situated in valuable ecological areas that should not have any human activities according to internationally signed conventions. The disappearance of the mangrove swamps is often ascribed to shrimp farming. The use of sometimes prohibited antibiotics, pollution of the environment, breaching employment rights, and using fish meal are other negative issues associated with shrimp farming.

In contrast to the wild catch of tropical shrimps, there are countless examples of farmed tropical shrimps that have been farmed in accordance with the best ecological principles. For some years there have been tropical shrimps on the market with an EKO quality mark, and more recently there is also an industrial 'neutral' standard for responsible shrimp farming. The GlobalGAP (GAP is the abbreviation of Good Agricultural Practices) standard for shrimp farming provides the European supermarket chains with an adequate quality guarantee for a responsible product. However, farmed tropical shrimps are also often in the 'red' sector in the consumer guides, and this is a generalisation that certainly does not apply to a large part of the supply on the Dutch market.

Marketing and processing

Shrimp fishery requires intensive manual labour for peeling the shrimps; only the larger sizes are sold whole or headless. The large labour demand for peeling has positive social aspects, such as simple employment which is often carried out by the poorest population groups. However, maintaining proper hygiene can be a challenge.

Tropical shrimps are marketed in various ways - raw, cooked, peeled, tail-on, shell-on, frozen, or chilled; almost every variation is possible. For most products, the specific species of shrimp is not what determines the consumer's purchase; this is particularly true for cooked and peeled products. Suppliers simply indicate that these are shrimps from the Penaeidea group, and that is fully in compliance with European legislation. The legislation that regulates the designation of the trade name and the catch or farming area does not apply to peeled and cooked shrimps. The Dutch shrimp trade offers this information on a voluntary basis in order to provide the consumer with additional information.



Responsible Fishing Committee

Postbus 72

2280 AB Rijswijk

Netherlands

www.pvis.nl

telephone: +31(0)70 336 96 00

fax: +31(0)70 399 94 26

E-mail: info@pvis.nl

Dutch Fish
Product Board

