

Different Types of Fermented Fish Product and Its Nutritional Value

Dan Oliver*

Department of Fisheries, University of Melbourne, Melbourne, Australia

ABOUT THE STUDY

"Fish" refers to any fisheries product that has gone through enzymatic or microbiological activity as a result of degradative changes in the presence or absence of salt throughout the fermentation process. Worldwide, fish fermentation processing is done using the same general methods. Enzymes work to break down proteins, and occasionally microbes can help as well.

The length of time paste may be kept at room temperature varies depending on the type of fish. The solubilization of fish proteins now starts to occur as a result of numerous bacterial and natural enzymes. In fact, multiple bacterial strains can be identified during this stage, but yeast and fungus loads usually decrease as fermentation progresses. Proteins in raw fish are broken down into smaller molecules during the fermentation process so they may be kept at room temperature. Only a partial breakdown of the protein happens in some procedures where it is regulated by adding salt, producing the correct flavor while also maintaining the product's preservation. As a result, the protein fraction and the lipid and fatty components of the raw material are the main focus of fish fermentation. With or without de-gutting or deboning, these products undergo spontaneous fermentation in saline liquors. It could also aid in lowering blood pressure, regulating blood sugar, and immune system stimulation.

Types

Salt fermentation is the main method used to ferment traditional fish products. According to the amount of salt added, products can also be categorized as having a high salt content (more than 20% of the total weight), a low salt content (between 6 and 8%), or no salt at all.

The flavoring agents in fermented fish products include monosodium glutamate, nucleotides, and inosine monophosphate as well as proteins and the hydrolytic cleavage products of those proteins, such as peptides, peptones, and amino acids; higher fatty acids and their esters; glycerides and their derivatives; and fatty acids.

Depending on their texture, fermented fish products can be divided into three categories;

- Products where the fish is either preserved whole or with a considerable amount of their natural shape. Examples include Makassar (Indonesia); Colombo cured mackerel (India); Buro (Philippines); Pedah Siam (Thailand).
- Prahoc (Kampuchea); Bagoong (Philippines); Belachan (Malaysia); Ngapi (Burma); Trassi (Indonesia) are products made from fish that has been reduced to a paste.
- Patis (Philippines); Nuoc-nampla (Thailand); Mam (Vietnam); Budu (Malaysia) are examples of products made by converting fish into liquid.

Nutritional value of fermented fish products

About 10% protein in the form of amino acids and polypeptides may be found in fermented fish sauces and pastes. Similar to how fish protein contributes to nutrition, these products provide amino acids that are present in fish without significantly changing their composition or quality. They are an excellent source of iron, calcium, and certain B vitamins. However, due to their high salt content, these goods have a limited nutritional value and should not be ingested in significant amounts. Furthermore, rather as serving as a source of nourishment, these traditional goods are used as a condiment. Fish preservation by fermentation has been a practice since the dawn of time. Fermented fish paste and sauces are popular side dishes (flavored salt) with cooked rice in several South East Asian nations. Nobody regularly eats a substantial number of these goods, yet practically everyone does on a daily basis. The three kinds of enzymes utilized in the fermentation process for traditional fermented fish products depend on the substrate and source, but the most typical process is the fermentation brought on by the fish enzymes. EPA and DHA concentrations in fermented fish are very high, along with other minerals and antioxidants. Bioactive peptides made from fermented fish products have been shown to possess antioxidant, antagonist, antihypertension, immunological modulatory, antithrombotic, antibacterial, and anticancer properties. Ascorbic acid, DPPH, and ABTS, which are advantageous, were much more prevalent in fermented fish. A considerable amount of the biogenic amines that some bacteria create, nevertheless, can be deadly. The quality of fermented fish should thus always be verified before consumption.

Correspondence to: Dan Oliver, Department of Fisheries, University of Melbourne, Melbourne, Australia, E-mail: olivdan7769@gmail.com

Received: 07-Mar-2022, Manuscript No. PFW-22-20597; **Editor assigned:** 09-Mar-2022, Pre-QC No: PFW-22-20597 (PQ); **Reviewed:** 24-Mar-2022, QC No: PFW-22-20597; **Revised:** 30-Mar-2022, Manuscript No: PFW-22-20597 (R); **Published:** 08-Apr-2022; DOI: 10.35248/2375-446X.22.10.203

Citation: Oliver D (2022) Different Types of Fermented Fish Product and Its Nutritional Value. *Poult Fish Wildl Sci.* 10:203.

Copyright: © 2022 Oliver D. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.