OVERVIEW

Biochemical Contents of Nutritional Values of *Clarias batrachus*

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ABSTRACT

The Biochemical contents like minerals & vitamins were studied in clarias batrachus. Minerals constitute 1 to 2 % fish flesh content. The bulk is concentrated in fish bones, muscles & scales. Vitamins A, B & D provides fish, Liver is particularly rich in vit B12 & B-complex.Fish flesh content proteins, moisture, minerals & other constituents. The water content of the fish known to vary inversely as the fat content, other constituents do not vary widely. Vitamins & enzymes are also present.

Key words : *Clarias batrachus* Biochemical contents, Mineral

INTRODUCTION

Fishes are more nutritive & relishing than the plant food. They are also known to be the most efficient from among from animals in converting food into nutritious food.

Chemical composition & nutritional quality of a fish is important in its use as food products from plants, cereals & fish (mukundan & james 1978) The importance of chemical composition of fresh water fish has been elaborately emphasized by stanby (1954). Pawar (2003) studied the bio chemical composition of some edible fishes belonging to gobbidae & siluridae.

Fish flesh content proteins 15-28% moisture 80% minerals 1-2% & other constituents 1% The water content of the fish is known to vary inversely as the fat content, other constituents to not vary widely. Vitamins & enzymes are also present. The principal minerals are ca, mg, k, Na, P, Fe, S, Cl, Cu, Mn, I, Br, Besides traces of sr, zn, ba, Al, pb Mo, co, ni, hg, cd are also present. Fish provides vitamins A, B & D all essential vitamins for human diet.

MATERIAL METHODS

The fresh & healthy fish *Clarias batrachus* were collected from Godavari river near Nanded. District. The freshly caught specimens were dissected immediately after bringing to the laboratory & wshed with tap water & subsequently with distiued water. Fish bones, muscles, liver, scales are removed observed the values of fish flesh content like minerals & vitamins.

RESULTS AND DISCUSSIONS

Table : Biochemical compostion of nutritional values in fish. (Based on gopalan Ex. Al, 1989)

Per 100 gm of flesh	Proximate principle (gm)			Minerals (mg)				Vitamins (mg)					
	Protins (gm)	Fat (gm)	Energy (Kd)	Ca, mg	P, mg	Fe mg	Total Mineral gm	B1	B2	B	B12	C	Choline B-conplers
Clarias batrchus	15.0	1.0	86.0	210.0	290.0	0.7	1.3	-	-	-	-	-	639

Minerals constitute 1 to 2 % fish flesh compostion. The bulk is concentrated in fish bones. Some elements cboron, fluorine, bromine, lithium, strontium are present in greater.

Phospherous occur in fish as phosphoproteins, phopholipies, complex phosphoric acids such as vitamin B& B12 gly cerophosphtides & adenosine poly phosphates. The adeno sino polyphosphate is the active substance in muscle break down during freezing & it is therefore a subject of importance in fish preservation.

The mineral constituents calculated on the basis of 100 gm of protein in the fish flesh that are calcum 0.109%, potassium 1.671 maganesium 0.133 phosphorus 1.14, sulphur 1.119 & Iron 0.0055. Iron, calcium & phosphorus are present in readily available forms. The bones & scales of telestean fishes have calcium in the form of appetite white in cytolith, it exists as carborate.

The nutritive & medicinal value of fish has been recognized from time immemorial. Fish flesh provides on excenllent source of protein for human diet. Fish flesh therefore becomes a valuable supplement to human diet for people who are habitually taking cereals starchy roots & sugar as their principal diet. Besides protein, fish flesh also offers minerals iodine vitamins. Fish flesh cooks expily, offera a palatable taste & flovaour & is eduly digestible. The bulk is concentrated minerals in fish bones, scales & muscles.

Conflicts of interest: The authors stated that no conflicts of interest.

REFERENCES

Airan J.W. (1950) :- Studies in Kolhapur fresh water fishes, Part – I, water extractable protein & mineral contents, Indian J. Med. Pg 38/25 : 169-172

Bapat S.S. (1971) :- Nutritive value of some food fishes of marathwada, Marath univ J.Sci 10(3) : 205-207

Japri, A.K. & Khauaja, D.K. & Quasim S.Z. (1964) studies on the biochemical composition of some fresh water fishes – I muscle, fish Technical 148-157.

Niyogi S.P. Patwardhan V.N. Acharya B.A. & Chitra R.G. (1941) studies on the nutritive value of fish, Indian J. Med R 29(2) 279-285.