

**ACCOUNTING FOR DISCARD RATES OF
COMMON EDIBLE FISH SPECIES
IN
QUANTIFICATION OF PER CAPITA FISH
CONSUMPTION.**

By

M.K.W.S.Kumara [B.Sc.]

Department of Zoology

University of Kelaniya

Sri Lanka.

Dissertation submitted as a partial
requirement for the M.Sc. degree in
Aquaculture and Fisheries
Management of the University of
Kelaniya, Sri Lanka.

November 2008

Abstract

In Sri Lanka, the fisheries sector is important in the national economy in view of its contribution food security, nutrition, sources of employment and foreign exchange earning.

Timely and reliable statistical information is one of the building blocks for formulation sounds development plans and policies to improving the efficiency of production, development, management and conservation of any production and fisheries sector in no exception. One of the indicators of contribution of fisheries sector to the country's economy is per capita consumption of fish. However inconsistencies are evident in the estimation of per capita fish consumption in Sri Lanka. In some situations this is estimates as $(\text{Total local fish production} + \text{Imports} - \text{Exports}) \div \text{Mid year population}$. It is also evident that in some situations, a nominal value of 10% discard rate is used to adjust fresh fish supply and the amount used for animal feed is deducted.

In the present study, samples from the selected fish markets were obtained from August 2007 to August 2008 to estimate discard rates and consumption rates. Sixty six edible fish species/species groups were sampled and the relationships of total weight to the net weight after removal of inedible parts were determined. Discard rate of common edible fish species varied from 0.09 to 0.268. The highest discard rate was with low consumption rate represented by the commercial group of Balaya (Skipjack tuna) and the lowest discard rate with highest consumption rate was represented by the commercial category of prawn.

In the pervious studies on discard /consumption rate of edible fish, different teams such as offal rate, inedible portion, discard percentage, wasting rate were used to express, discard rate, edible percentage, conversion factor of live weight to net weight, filleting rate for the consumption rates were the terms that were used to express consumption rate. In the present study, discard weights of edible fish were estimated as weight losses in removal of gills, gutting and fining of fish, which were estimated as 10-30% of live weight of fish. When the fish was processed up to fillet discard rate was as high as 50%.

Discard rates of sampled fish species/species group in different commercial category were then used to adjust per capita fish consumption. The present analysis indicated that the official estimates of per capita fish consumption during 2000-2007 periods were over estimated by 1 % to 8 %.

For more accurate estimate of per capita fish consumption rate of different commercial category net availability of fish should be incorporated. Accordingly an improved procedure is proposal for estimating per capita fish consumption in Sri Lanka.