

STUDIES ON SOME ASPECT OF AN AIR BREATHING FISH, CHANNA GACHUA(HAM.)

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ABSTRACT- STUDIES on daily intake, energy value of ration ,total faecal discharge ,energy value of faeces and absorption efficiency have been made in different weight group of air breathing fish,channa gachua(ham). The above parameter ranged from 0.65-7.07 f/fish/day, 2440-26710 joules, 0.11-1.64g/day(dry weight).respectively within the weight 16.3-104.0g.

Introduction- the relation between fish and their food is affected by a complex interaction between a number of factor which include temperature ,light,salinity, fish size acitivity and behavior. Appetite ,feeding regime starvation stress and type of food . knowledge of the digestibility of dietary nutrients is essential for the study of fish energetic and for the evaluation of the effeciencies of different food stuffs. The purpose of the present of the present work is to determine the daily food intake ,total faecal discharge ,energy value of ration and absorption efficiency in afresh water air breathing murrel,channa gachua(HAM) BECOUSE OF THE PAUCITY OF INFORMATION AND IN ADEQUATE data on this aspect in fishes.

MATERIAL AND METHOD- live specimens of different size and weight of channa gachua were collection from local fish dealers at gaya. Transported to the laboratory ,treated with potassium permanganate for few minute and transferred in glass aquarium .unhealthy and injured fish were rejected .Experiment were performed after a minimum acclimation periods of seven days in the lab.the fishes is divided in 10 groups depending upon their body weight .each containing 10 fishes but kept separately in small glass aquarium .they were fed once daily at 11.00 am .with weight chopped goat liver ad labium .uneaten food ,if any was removed ,dried and weighted. The experiment continued for seven days and mean values calculated to obtained daily food intake .the energy content of the food were determined by bomb calorimeter as given by pandey et al (1993). All energy value were converted to joules . detailed of the method employed for the collection of faeces were following the method of ray & patra (1987)and singh (2000).

Table –showing daily food intake ,energy value of ration ,total faecal production ,energy value of faeces and absorption efficiency in an air breathing fish. Channa gachua (ham) at $31.5 \pm 1.0^{\circ}\text{C}$ n =4 for each group

BODY WEIGHT	DAILY FOOD g/fish/day	INTAKE % of body weight	Energy value ofration in j	Total faecal discharge g/day,dry weight	Energy value of faeces In joules	% of c	Absorption efficiency
16.3	0.65	4.0	2440	0.11	348.9	14.3	85.7
21.4	0.94	4.6	3570	0.18	538.8	15.1	84.9
34.5	1.59	4.4	6000	0.32	966.0	16.1	83.8
42.3	2.03	4.8	7690	0.44	1248.0	16.2	83.9
56.5	3.05	5.4	11150	0.65	2014.0	17.5	82.5

Av.17.76 av. 82.2

OBERVATION

1. daily food intake and energy value of ration : the data showing daily food intake energy value of ration ,total faecal disvcharge ,energy value o faeces and absorption efficiency in ten weight group of channa gachua at 31.5 ± 1.0^0 are present in table daily food intake ranged between 0.65-7.7 g/fish /daly within the weight range 16.3 to 104.0g . the percent daily food intake range from 4.0-6.8% with in this weight range .the energy value of ration ranged between 2440j to 26710 j within the above mention weight range in channa gachua.(ham).
2. Feacal production and energy from 0.11 to 1.64 g/day for these fishes , the energy value of faeces F ranged from 348.9-5609.1 joules .this value range from 14.3-21.0% of the total energy value of food.C.
3. Asorption efficiency: the total energy value of food minus energy value of faeces given us an estimated of the energy value of food actually absorption by the fish of specified body weight .the absorption efficiency from 85.7-79.%within the weight range 16.3-104.0g.

DISCUSSION- THE feeding and energetic of air breathing fishes has recived much attention recently the feeding rate of temperature fishes are reported between 1.8-17.3% of body weight perday and that of the tropical fish from 4.0-36.0 mean 16.7 at 12,18,24 and 30crespectivly maintain ration have been estimated as 0.40 of the body weight per day in a comman carp, cyprinus carpio while the daily ration of young fish .in the present channa gachua daily daily foos intake in different weight group of fishes ranged from 4.0 6.8% of their body weight and the value as within the ranged reported by the above noted investigation in a number of fishes.

The digestive energy of afood stuff is defined as the total energy of food minus thet portion of food energy content voided in the faeces, brett & grove suggest typical value of 80 and 59% for carnivorus and hervorous fish respectively ,winberg pointed out that absorption efficiency in fish are about 83-85% .in the present study in c.gachua the absorption efficiency in fluctuated between 79-85 % .which corroboration the finding of a number of investigation in india.

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