

TABLE II  
Mean variance within blocks for different sampling methods

Method of sampling	1%	2%
1st method	206.8 ± 16.0	230.6 ± 10.7
2nd method	*	29.2 ± 3.1
3rd method	*	149.8 ± 24.4

  

Method of sampling	5%	7%
1st method	222.2 ± 6.4	222.2 ± 6.2
2nd method	45.6 ± 2.4	99.6 ± 15.8
3rd method	131.9 ± 9.2	104.1 ± 4.1

\* There was only one sample in each block.

TABLE III  
Percentage loss in efficiency for different sampling methods

Method of sampling	1%	2%	5%	7%
1st method	57.8 → 7.1	58.7 ± 5.5	30.8 ± 3.1	24.7 ± 3.4
2nd method	*	43.3 ± 6.4	33.4 ± 3.1	43.4 ± 6.5
3rd method	*	72.4 ± 5.8	63.7 ± 5.6	47.9 ± 5.4

\* There was only one sample in each block.

TABLE IV  
Standard errors of the estimates for different sampling methods

Method of sampling	1%	2%	5%	7%
1st method	2.16	2.36	1.16	1.20
2nd method	3.89	2.09	1.40	2.92
3rd method	3.11	3.53	2.20	1.80

An examination of the above tables leads to the following conclusions:—

(1) The averages of the estimates are almost the same for the various methods of sampling. The standard error of these averages is for all practical purposes a minimum for the first and second methods of sampling on 5 per cent. basis.

(2) The variance within blocks is minimum for the second method of sampling on 2 per cent. and 5 per cent. bases.

(3) The percentage loss in efficiency is low for the first and second methods of sampling on 5 per cent. basis. It is also low for the first method on 7 per cent. basis.

(4) The standard errors of the estimates are comparatively low for the first and the second methods on 5 per cent. basis. It is low for the first method on 7 per cent. basis also.

On the whole the present investigations indicate that 5 per cent. sampling by either the first or the second method is likely to give results with comparatively low error. The first method involves more labour for threshing than the second one and hence in actual practice the latter is preferable to the former.

Imperial Agricultural Research  
Institute, New Delhi, P. V. KRISHNA IYER.  
May 19, 1943. S. AZIZUDDIN AHMAD.

1. Wishart and Sanders, *Principles and Practice of Field Experimentation*, Emp. Cotton Growing Corporation, p. 44.
2. Yates and Zecopany, *J. Agri. Sci.*, **25**, 545.
3. Hudson, *Ibid.*, **29**, 76.
4. Kalamkar, *et al.*, *Curr. Sci.*, **5**, 533.
5. Hubback, *Agri. Res. Inst. Pusa Bull.*, No. 16.
6. Krishna Iyer, *Ind. J. Agri. Sci.*, **12**, 240.

### SILURUS COCHINCHINENSIS C.V. FROM MYSORE STATE

COMMENTING on a collection of fishes from Kadur District, Mysore State, Bhimachar and Subba Rau<sup>1</sup> recently referred the species of *Silurus* found on the Western Ghats to *Silurus cochinchinensis* C.V. They pointed out that the variability found in the number of mandibular barbels in the species of *Silurus* is due to the absorption of one of the pairs with the growth of the fish and that it has no taxonomic significance. Based on this conclusion Day's *S. wynaadensis* was considered as a synonym of *S. cochinchinensis* C.V. Hora<sup>2</sup> considered this a valuable observation since it indicates the occurrence of one and the same species in Cochin-China, Southern China, Siam, Malay Peninsula, Burma, Assam, Eastern Himalayas and Peninsular India. This fish represents one of the important Far Eastern elements in the fish fauna of Peninsular India. Its occurrence on the Western Ghats is an important evidence in favour of the "Satpura Trend" theory of Hora.

There are two specimens of *Silurus cochinchinensis* C.V. in our collection of fishes recently made from the hill streams of Western Ghats about two and a half miles from Kottigehar. They were collected in a drainage draining towards the west and in association with *Nemachilus striatus* Day and *Bhavanaia annandalei* Hora. They measure 111 mm. and 70 mm. respectively in standard length. While the former has only a single anterior pair of mandibular barbels the latter has, in addition, a partially absorbed one of the posterior pair, that on the right side. The left posterior barbel is completely absorbed. This finding confirms the observation made by Bhimachar and Subba Rau.

Fisheries Section, B. S. BHIMACHAR.  
Department of Agriculture, AUGUSTINE DAVID.  
Bangalore, August 5, 1943.

1. Bhimachar, B. S., and Subba Rau, A., *Journ. Mysore Univ.*, 1941 (B).
2. Hora, S. L., *Rec. Ind. Mus.*, 1942, **44**, Part II, 193.