for a fixed amount of prothrombin. Naturally, for low or inadequate amounts of calcium not all of the prothrombin can be reformed. *For higher levels of calcium the depressing action of this ion begins to manifest itself.*"

In reply to our letter written in October 1940, mentioning our findings and requesting his comments, Professor Quick replied in the last week of February this year. "In regard to your first observation, calcium chloride beyond a certain concentration depresses coagulation. I think this observation is linked with the fact that prothrombin itself is a calcium compound and that the remainder of the calcium of the blood is not needed for coagulation. (I am sending you a reprint on this subject.)" The reprint, eagerly awaited, has not reached us yet.

We therefore felt it desirable to reinvestigate the question. Quick's test was performed using eight different concentrations of calcium chloride solution. The results presented in Table II confirm our early findings, regarding the inhibitory action of a moderate excess of calcium on Quick's test.

TABLE II

Quick's Prothrombin time in seconds with different concentrations of Calcium Chloride Solution

Subject	M/5	M/10	M/15	M/20	M/30	M/40	M/80	M/160
K.Y. ..	80	35	25	22	19	17	17	17
M.S. ..	130	39	31	24	20	19	19	19
B.Ch. ..	140	43	29	23	23	21	21	21
K.S. ..	122	37	27	25	21	16	18	17
D.P. ..	108	46	31	24	22	20	19	20
A.P. ..	115	47	31	23	21	20	20	..

Whatever may be the theoretical explanation for the above findings, we feel justified in publishing our results with a view to stimulate further work on this very important but neglected question.

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C. VENKATARAMAIAH.

Department of Physiology,
Andhra Medical College,
Vizagapatam,
May 15, 1941.

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AIR TEMPERATURES GIVEN IN METEOROLOGICAL REPORTS COMPARED WITH THOSE ON THE FIRST FLOOR OF A BUILDING AT POONA

THERMOMETERS at all meteorological observatories in India, are exposed in a Stevenson Screen with its bottom at a height of 4 ft. above ground. The temperature registered by these thermometers is that experienced by persons who live and work in the open without exposure to direct sunlight during the day or to sky radiation at night. But people spend most of their time indoors, especially in towns, and the temperatures to which they are exposed are generally more equable than in the open.

This note gives the results of a comparison for one year between the temperatures obtained under standard conditions at the Poona observatory and the temperatures on the first floor of the Poona Meteorological Office building.

A thermograph by Casella is kept on a table on the first floor landing near a broad door

leading to the balcony. The landing is continued on either side in the front verandah of the building, which is screened from the outside by mosquito-proof wire-netting. The thermograph is at a height of 3½ ft. above floor level and 21 ft. from the ground. The Stevenson Screen is situated in the compound of the Office at a distance of about 200 ft. from the building.

The daily values of maximum and minimum temperatures for a single year 1938 were tabulated from the thermograms. The readings of the thermograph were compared twice a month with those of an Assman thermometer.

The monthly mean values of the maximum and minimum temperatures on the first floor together with the differences from the corresponding monthly means of temperatures in the Stevenson Screen are given in Table I.

As may be expected, the air inside the building is cooler during day and warmer during night, the contrasts being greater in the case of the minimum than in those of the maximum temperatures. The differences are least in the monsoon season and greatest in winter and spring.

The diurnal range of temperature inside is similar to that outside in its annual variation. The range is least in June–July and greatest in February–March; and the magnitude of the diurnal range is much smaller inside; on the average of the year it is only 7° F. inside as against 24° F. outside.

The highest maximum and the lowest minimum recorded on both the sites in each month are given in Table II.

The tabulations also show that the differences between the inside and outside retain the same sign day after day although differing in magnitude. On rare occasions in the rainy season the maximum inside is found to be higher than the maximum outside when a sudden shower

TABLE I

First Floor.—Monthly means of max. and min. temperature (° F.)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year
Maximum temparature	77·3	78·5	87·2	90·4	88·5	80·0	78·4	78·5	79·4	78·6	76·7	74·9	80·7
Difference .. (S.S.—1st Floor)	+12·1	+10·6	+10·8	+10·2	+ 8·0	+ 2·6	+ 2·4	+ 3·8	+ 5·1	+ 6·9	+ 9·7	+10·1	+ 7·7
Minimum temparature	68·6	68·2	76·9	80·6	80·0	77·6	76·0	76·0	75·9	73·9	69·3	65·5	74·0
Difference .. (S.S.—1st Floor)	−13·0	−15·8	−13·5	−10·6	− 7·8	− 5·2	− 4·7	− 5·2	− 6·7	− 9·1	−12·7	−14·4	− 9·9

TABLE II

Highest max. temperature (° F.)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1st Floor	80	84	92	94	94	87	82	82	85	82	82	78
S.S.	95	95	102	105	104	94	88	89	92	91	89	91
Lowest min. temperature (° F.)												
1st Floor	67	64	72	76	78	76	74	74	74	72	65	61
S.S.	51	45	55	58	65	68	69	69	65	54	45	43

at about the time of the maximum temperature cools the outside air.

V. Doraiswamy Iyer.

Meteorological Office,
Poona,
May 26, 1941.

ANALYSIS OF THE OIL OF *ZIPHIUS CAVIROSTRIS* (GOOSE-BEAKED WHALE)*

In July 1940, a member of the Ziphiidæ, identified as *Ziphius cavirostris* at the Fisheries Department, Colombo, was washed up alive on the west coast of Ceylon at Ratmalana. Specimens of this animal have been reported previously[1-6] but no analysis of the oil of this very rare Cetacean appears to have been carried out. It was therefore considered of interest to record the analytical characteristics of the oil from this mammal.

The only sample of "body oil" obtainable was from a piece of blubber which had been left in an open dish for three days and from which the oil had drained away. Unfortunately rancidity had set in. The values obtained are given below; and for comparison, the analytical characteristics of Dolphin oil are also provided.

I must thank the Director of Fisheries for the facilities afforded to me in the Laboratory of the Fisheries Department.

N. G. Baptist.

Fisheries Dept. Laboratory,
Ceylon,
June 26, 1941.

* (From the Laboratory, Fisheries Department, Ceylon.)

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	Sp. Gr.		Ref. Ind.	Sap. No.	Sap. Eq.	Iodine abs. %	Free F. A.		Non-sap.
							Acid No.	As Oleic acid	
Ziphius Head oil	$0{\cdot}904^{28°/28°}$	..	$1{\cdot}568^{28°}$	235 240	234–238	26	1·2	0·61%	14·7%
Body oil	$0{\cdot}920^{29/29°}$	.	$1{\cdot}384^{29°}$	113	496	50	20	10·1%	8·3%
Dolphin[7] Jaw oil	$0{\cdot}925^{15/15°}$	..	$1{\cdot}452^{26°}$	270 290	195–205	32	2·4	1·2%	fairly high
Body oil	$0{\cdot}927^{15/15°}$	..	$1{\cdot}471^{26°}$	187–220	255–300	100–127	2 12	1–6%	..
Sperm Whale[7] Head oil	$0{\cdot}878^{25°/27°}$	..	$1{\cdot}459^{25°}$	140 144	390–405	60–76	3·8	15 5%	39–43
Body oil	0·876	..	$1{\cdot}462^{15°}$	122–130	430–460	88–93	2 4	1–2%	33–44

A LONG-GLUMED MUTATION IN RICE

Generally speaking the cultivated varieties of rice, *Oryza sativa* L., possess minute outer glumes measuring from 1·5 to 3 mm. Even the wild rice, characterized by complete shedding of grain, has very small glumes. However, there are certain varieties of *O. sativa* whose glumes are longer, extending up to the upper limits of lemma and palea. In certain of such varieties the glumes are even longer than the spikelets. These are