Protective Mimicry

IN NATURE, No. 126, for 28th ult., at p. 436, M. G. Pouchet is recorded to have stated in a paper read before the Academy of Sciences, first, that prawns accommodate their colour to that of surrounding objects; second, that removing their eyes prevents this change of colour.

Of the truth of the first assertion I presume there is no doubt; but of the second I should much like to learn further, for when we speak of Protective Mimicry in all the lower forms of life, we do not assume that there is any ratiocinative mimicry. Yet if this power of protective mimicking in the prawn is dependent upon eye-sight, *i.e.*, upon the power of conveying impressions upon the optic nerve to the brain, does it not cease to be "mimicry" as generally understood, and pass into the order of mental volition? If so, how vast and interesting is the consideration!

I hope that Mr Darwin, Mr. Wallace, or some other of your scientific contributors will enlighten through your columns

March 31

IGNORAMUS

CRANIAL MEASUREMENTS

WHILE engaged in the investigation of another matter, I was induced to make a series of cranial measurements, and these I wish to record under the impression that they may be of use in the hands of some future worker, though by themselves they are not of much value.

The measurements were made at Wakefield, in Yorkshire, during 1868-9, and are those of the working-classes of the town and neighbourhood. Careful inquiry was made as to the birthplace and parentage of each subject, and no measurements are given save of those belonging to the basin of the rivers Calder and Aire. The type of the people is pre-eminently Saxon, and the results may therefore be taken as pretty accurately representing the configuration of the crania of modern Yorkshire.

Attached are also the average height and weight for each decade, and a calculation of the average cephalic index.

The measurements of the head were taken by large calipers, and are simply the greatest bi-parietal and occipito-frontal diameters, and the measurement of the face is from the tip of the chin to the root of the hair on the forehead.

The average cephalic indices of the whole would show men to be slightly more brachio-cephalic than women (by '75), while the result of the whole is decidedly eurycephalic.

The cephalic indices of each decade of age would lead us to believe that dolicho-cephalic people have a better chance of life than the brachio-cephalic people, unless we believe that the form of the cranium alters between thirty and forty years of age.

The entire table leads me to believe that there is not much value to be placed in such cranial measurements for the purposes of racial distinction; certainly not in isolated skulls; for see the curious variations of measurement in couples of the same sex taken from the same decade, as shown in the table below:—

Age.	Length of head.	Breadth of head.	Cephalic Index.	Difference in Cephalic Index.
Years.	Inches.	Inches.		
3	7'25	5'25	72'41	
3	6'25	5'50	88'00	15'59
14	7'12	5'37	75'42	
14	7'12	6'00	84'27	8'55
25	7'37	5'75	78'02	
28	6'62	5'75	86'86	8'84
32	5'87	6'12	104'26	
35	7'00	5'75	82'14	26'12
38	8'00	6'75	84'37	19'89
43	8'00	6'00	75'00	
47	7'00	7'75	110'71	35'71
52	7'75	6'00	77'42	
52	7'25	6'00	82'76	5'34
65	7'00	5'50	78'57	
69	7'12	6'25	87'78	9'21

For the purpose of contrasting the results I have obtained in the measurements of height and weight, I add a translation of Quetelet's tables:—

MEN.			WOMEN.		
Age.	Size.	Weight.	Age.	Size.	Weight.
	Ft. In.	Lbs.		Ft. In.	Lbs.
Birth	1 7'527	7'052	Birth	1 7'008	6'413
1	2 3'401	22'040	1	2 3'136	20'497
2	2 7'377	26'448	2	2 6'768	25'125
3	2 9'858	29'115	3	2 9'458	27'440
4	3 0'692	33'214	4	2 11'030	31'253
5	3 2'776	36'807	5	3 2'340	34'162
6	3 4'964	39'760	6	3 4'620	36'905
7	3 7'779	44'433	7	3 7'152	40'644
8	3 10'068	49'061	8	3 8'832	43'683
9	4 0'307	53'094	9	3 11'234	49'458
10	4 2'473	57'569	10	4 1'128	53'425
11	4 4'484	61'381	11	4 2'196	57'855
12	4 5'504	68'324	12	4 4'236	67'320
13	4 7'234	77'846	13	4 6'364	75'079
14	4 10'543	89'262	14	4 8'964	83'973
15	5 1'378	102'288	15	4 10'068	91'026
16	5 3'386	117'672	16	4 11'032	97'946
17	5 5'748	126'510	17	5 1'176	108'175
18	5 6'684	135'018	18	5 1'488	117'003
19	5 7'104	139'558	19		(not given)
20	5 7'356	143'201	20	5 1'800	120'030
25	5 7'788	150'512	25	5 2'076	121'397
30	5 7'788	151'857	30	5 2'160	121'529
40	5 7'440	151'068	40	5 2'212	124'857
50	5 5'904	148'661	50	5 0'423	128'826
60	5 4'524	144'363	60	4 11'673	125'034
70	5 3'888	138'919	70	4 11'604	118'400
80	5 3'404	134'930	80	4 11'294	112'551

MALES

Age.	No. of Individuals.	Height.	Weight.	Length of head.	Breadth of head.	Face.	Cephalic Index.
		Feet. In.	Lbs.	Inches.	Inches.	Inches.	
3 to 4 months . . .	8	1 11'00	12'00	5'12	3'94	4'12	80'47
6 to 12 " . . .	8	2 2'50	21'12	5'69	4'62	4'50	81'20
12 to 18 " . . .	10	2 4'50	22'50	5'50	5'00	4'75	90'91
18 months to 2 years . . .	20	2 5'25	23'25	6'33	5'12	5'00	80'88
2 to 3 years . . .	14	2 9'50	25'25	6'75	5'20	5'33	77'04
3 to 5 " . . .	17	3 5'00	36'17	6'62	5'37	5'37	81'12
5 to 7 " . . .	9	3 7'50	39'89	6'87	5'75	5'81	83'70
7 to 10 " . . .	17	4 3'25	56'75	7'09	5'75	6'12	81'10
10 to 15 " . . .	40	4 7'76	78'50	7'25	5'75	6'50	79'31
15 to 20 " . . .	22	5 5'17	120'33	7'50	6'00	7'12	80'00
20 to 25 " . . .	13	5 7'67	152'00	7'50	6'00	7'33	80'00
25 to 30 " . . .	18	5 7'25	149'50	7'50	6'00	7'67	80'00
30 to 40 " . . .	29	5 7'00	146'33	7'11	6'00	7'00	84'37
40 to 50 " . . .	37	5 2'50	148'00	7'83	6'00	6'00	76'63
50 to 60 " . . .	47	5 8'12	139'50	7'50	5'87	7'50	78'27
60 to 70 " . . .	20	5 8'12	126'00	7'40	5'75	7'33	77'70
80 years . . .	1	5 10'00	174'00	7'87	6'00	6'87	76'24
Total	330					Average. . .	80'04