

In conclusion, I suggest a simple rule for obtaining the "score" as an approximation to the "geometrical mean," namely *Revert dilutions⁷ and apply Phelps Method.⁸* The process of reversion gives the benefit of geometrically reducing the data, and by applying Phelps' Method one obtains an approximate "Geometrical Mean." This is the principle successfully applied in "scoring" oysters.

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SANITARY CORPS U. S. A.

CARDIUM CORBIS A MONÆCIOUS BIVALVE

IN the work entitled "Tertiary Fauna of Florida," *Transactions of The Wagner Free Institute of Science of Philadelphia*, Vol. 3, part 5, 1900, p. 1071, William H. Dall makes the following observation with reference to *Cardia*: "Nearly all *Cardia* have two forms, one more equilateral and globose, the other more oblique and elongated, but whether these differences can be correlated with sex is at present unknown."

If attention has been called to the fact that certain species of *Cardia* are monœcious, since Dall made the above statement, the writer of this note is not aware of it.

Variation as mentioned in the above quotation is very noticeable in the common *Cardium corbis* Martyn of the northwest coast. On preparing sections of the visceral region of individuals of this species in recent studies, their hermaphroditic character was clearly shown, masses of ova being interspersed with and sometimes completely surrounded by the spermaries.

I have not had the opportunity of examining other species of *Cardia*. They may or may not be monœcious, but it is evident, from the above observation on *Cardium corbis* Martyn, that variations in this genus must be based upon something other than sexual differences.

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⁷ Standard Methods of Water Analyses, Report Committee Am. Public Health Ass'n, 1912.

⁸ Phelps, Professor Earle B., *Am. Jour. Pub. Hyg.*, 18, 1908, p. 141.

THE PASSENGER PIGEON

TO THE EDITOR OF SCIENCE: In 1902, 1904 and 1905 I rented a house at Devon, about sixteen miles west of Philadelphia, and on several occasions a single passenger pigeon visited my garden there. Doves came frequently. I was near enough to the passenger pigeon to make mistake impossible. Its color and size would easily distinguish it from the dove, as well as its method of flight and the use of its tail in rising from the ground, which is so much freer than that of the dove, while the shape of its tail would make it impossible to mistake its spread tail for that of a domestic pigeon. I was at Devon again during the summers of 1907 to 1913 inclusive and four or five times saw a single passenger pigeon. The last time was while motoring in 1913. I was running swiftly along a road not far from the woods and a bird got up by the side of the road and after rising from the ground about fifteen feet started off towards the woods. When its flight changed from semi-perpendicular to horizontal I was not twenty yards from it and could clearly see its breast and the under side of its tail and just afterwards the upper side of its tail still spread as the bird changed its course. I could see where it got up on the road and had an excellent idea of my distance, so that I could judge of its size, as well as its color and the shape of the tail.

I have always felt very skeptical about the "scientific" killing off of the last bird of a species which was so broadly distributed and most of whose haunts were so far from the abode of any one who would be likely to write for the papers. It may be what professional scientists would call scientific, but to me, as a business man, it has seemed pretty much like jumping at conclusions and trading on one's ignorance.

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QUOTATIONS

THE BRITISH BIRTH RATE

It is very difficult to bring home to people the meaning of a tendency so long as that tendency can only be expressed in figures. Yet

few, we think, can read the latest returns of the Registrar-General without realizing that, so far as population is concerned, all is not well with our state. These figures—the quarterly return of marriages, births and deaths—reveal the outstanding fact that last quarter for the first time since the establishment of civil registration the number of deaths exceeded the number of births. The excess was 79,443. The average excess of births over deaths in the fourth quarter of the three preceding years was 44,785.

This lamentable state of matters requires, however, to be viewed in the light of the influenza epidemic. The Registrar-General regards influenza as a primary or contributory cause of death in no fewer than 98,998 instances, or 41 per cent. of the total deaths registered last quarter.

Influenza, however, by no means completely accounts for the fact that the relationship between birth-rate and death-rate is not improving, but is on the contrary getting worse. Even if we deduct all the influenza deaths the situation remains disquieting.

There is one chief remedy—the saving of those children we have. The fact that of 161,775 births in the quarter under consideration 10,367 were illegitimate should not be lost sight of. At present the way of the illegitimate child in a health sense is hard and dangerous. It must, we think, in the national interest be safeguarded. This is an economic and social as well as, perhaps more than, a medical question. But it is not the less on that account urgent.

Medicine can to some extent prevent disease from attacking the child; medicine can not perform miracles. It is a miracle if children brought up in foul and evil surroundings grow up healthy and wholesome men and women. The miracle, incidentally, is usually accomplished not by doctors but by the self-sacrifice and heroism of the mother of the children, who too often loses her own health in the process.

The birth-rate is the lowest on record, even though 8,104 more births occurred than in the fourth quarter of 1917. Marriages increased in the third quarter of 1918 23,710 over the

preceding quarter, and 18,672 over the third quarter of 1917.

According to the returns, 662,773 births and 611,991 deaths were registered in England and Wales in 1918. The natural increase of population, by excess of births over deaths, was, therefore, 50,782, the average annual increase in the preceding five years having been 287,664. The number of persons married during the year was 573,614.

The marriage-rate in England and Wales during 1918 was 15.3 per 1,000, the birth-rate 17.7 per 1,000—the lowest on record—and the death-rate 17.6 per 1,000. Infant mortality was 97 per 1,000 registered births.

The number of deaths registered in the last quarter, 241,218 was 127,000 more than in the preceding quarter, and 128,477 more than in the fourth quarter of 1917. The civilian deaths correspond to a rate of 26.8 per 1,000 of the civil population in 1917. The highest death-rate recorded in England and Wales as a whole in any previous quarter was 25.5 per 1,000 in 1846.—The London Times.

SCIENTIFIC BOOKS

The Pygidiidae, a Family of South American Catfishes. By C. H. EIGENMANN. Mem. Carnegie Mus. 7 (5), 259–398; pls. 36–56.

The catfishes described in this excellent monograph are generally burrowers. They are usually characterized by the presence of spines on the opercula and interopercula and the absence of an adipose fin. The opercular spines render the fishes difficult to dislodge from cavities into which they are accustomed to insinuate themselves. Certain specialized types commonly live as parasites in the gill chambers of other fishes and some are even said to enter the urethrae of mammals, including man. *Nematogenys* from central Chile is the most primitive living representative, and resembles the Siluridae in certain characters. The eighteen other genera are distributed throughout South America. Most pygidiids are slender, slimy fishes “as slippery as the proverbial eel.” Eighty-nine species are described; sixty-three being placed in the genus *Pygidium*, which is said to occur “probably in