

Classe IV^e; LES AMPHIBIENS

AMPHIBIENS	I ^{er} degré d'organisation ou ordre	Sous-ordre	{ I. <i>Aquipares</i> . Rainette, grenouille, Crapaud II. <i>Dorsipares</i> . Pipa.
	BATRACIENS		
	II ^e degré d'organisation, ou ordre		
	PSEUDOSAURIENS, ou Salamandres.		
	III ^e degré d'organisation, ou ordre		
	SUBICHTHYENS. Les Protées, Sirènes.		
	IV ^e degré d'organisation ou ordre		
	PSEUDOPHYDIENS, ou Coecilies.		

Three years later Latreille* used the Latin names *Reptilia* and *Amphibia* for de Blainville's classes *Reptiles* and *Amphibiens*, and these names ought to be used. Gray† in the same year, but later used the same names as distinct classes.

This name is used to-day all over Europe, France excepted.

Latreille's characters are the following:

P. 90. "*Première Classe*. REPTILES. REPTILIA.

"Ils ne respirent, et en tout temps, que par des poumons. Le cœur a deux ventricules et deux oreillettes. Les mâles ont une verge quelquefois double ou fourchue et s'accouplent. Plusieurs sont sujets à des mues complètes, ou se défont de leur peau, mais aucun n'éprouve de métamorphose. Le corps est plus souvent garni d'écailles ou emboîté; les pieds sont toujours armés d'ongles très-sensibles. La coque des oeufs est dure ou du moins coriace."

P. 103-14. "*Seconde Classe*. *Amphibiens*. AMPHIBIA.

"Ici les deux poumons sont accompagnés, soit dans le jeune âge, soit pendant toute la vie, de branchies. Le cœur n'a qu'un ventricule et qu'une oreillette, tant que les branchies persistent, un tronc artériel et dorsal tient lieu du ventricule qui manque, savoir la gauche il est remplacé, lorsqu'elles disparaissent, par une

* Latreille, Pierre André, *Familles naturelles du règne animal*, Paris, 1825, pp. 90-103.

† Gray, John Edward. A synopsis of the genera of Reptiles and Amphibia with a description of some new species. *The Annals of Philosophy*, New. Ser., Vol. X. London, Sept., 1825, pp. 194-213.

artère dorsale. Les mâles n'ont point de verge. L'accouplement n'est que simulé, c'est-à-dire qu'il ne consiste que dans de simples embrassements, durant lesquels les mâles fécondent les oeufs, à mesure qu'ils sortent. Les petits naissent sans pattes, et subissent de véritables métamorphoses. La peau est toujours nue, et les ongles des pieds sont nuls ou rarement sensibles. Les oeufs sont réunis, et leur coque est membraneuse. Ces animaux vivent pour la plupart dans les eaux ou les lieux humides."

FEBRUARY 14, 1897.

G. BAUR.

CORRECTION CONCERNING MR. RHOADS' USE OF THE NAME *BASSARISCUS RAPTOR* (BAIRD).

In a recent paper in the Proceedings of the Biological Society of Washington* I quoted two statements, which were in part contradictory, from a paper by Mr. S. N. Rhoads respecting the proper name for the Oregon *Bassarisk*. In so doing I made a stupid blunder, for one of the statements in question was quoted by Mr. Rhoads, whose own remarks in this particular were not inconsistent.

C. HART MERRIAM.

SCIENTIFIC LITERATURE.

Report on Vital and Social Statistics in the United States at the Eleventh Census, 1890. Part II., Vital Statistics. Cities of 100,000 Population and Upward. By JOHN S. BILLINGS, M.D. Washington, 1896 [Received May, 1897], pp. 1181.

Now that statistical studies of variation and

*Proc. Biol. Soc. Wash., XI., 186, July 1, 1897.

the phenomena of life are coming into so much favor among students of evolution, the present volume possesses a distinct value as a biological treatise, in addition to its obvious practical utility. It may serve at once as an encouragement and a warning to ardent statisticians, because, while many of the facts it sets forth are important and interesting, the closer it is studied the stronger grows the conviction that vital statistics need to be examined with extraordinary caution before being accepted at their 'face-value.' *Homo sapiens* is an animal whose habits are better known to us than those of any other, and we have exceptional facilities for estimating the factors which control his development and evolution. Accordingly, we readily perceive the more important probable sources of confusion in the statistics, as, for example :

(1) The 28 cities of the size indicated in the title had an aggregate population of 9,697,960, of which 4,850,653 were males and 4,847,307 females. Thus it might be inferred that the males of the human species were more numerous than the females, but for the recollection that large cities attract great numbers of men who either have no families or leave them elsewhere. Taking the cities separately, the majority had more females than males, but the following eleven had an excess of males: Buffalo, Chicago, Cleveland, Denver, Jersey City, Kansas City, Minneapolis, Omaha, Pittsburg, St. Louis (white) and St. Paul. It is significant that while Omaha had a population of 80,108 males and only 60,344 females, those under one year of age consisted of 1,411 males and 1,422 females, showing an excess of female births, in accordance with current expectations.

It is, however, very remarkable to find that in a number of cities there was an excess of male babies under one year of age, showing apparently an excess of male births. Thus Jersey City had 2,007 males and 1,966 females under one year; Chicago had 15,281 males and 14,823 females under one year. But this result is further complicated by the fact that there was a considerable excess of male mortality under one year; thus in Chicago the deaths under one year were 233.95 males and 190.72 females per 1,000 population of corresponding

age. In every city the male mortality under one year exceeded the female, often greatly exceeding it. Thus including still-births, we get the following striking results:

Total deaths under one year.

	Males.	Females.
Buffalo,	1,069	817
Cleveland,	1,155	835
Philadelphia,	3,707	3,055
New Orleans,	1,084	844
and so forth.		

Now how are we to account for an excess of male births, combined with a remarkable excess of male mortality, during the past year? I have heard it stated that the slightly larger average size of the male head leads to an increase of the number of still-births, but this obviously will only account for a small proportion of the facts here before us. It seems to the present writer that some light may be thrown on the problem by the theory, adopted by some biologists, that the sex is determined at an early age by the conditions of the nutrition of the germ, favorable conditions producing a preponderance of females, unfavorable of males. If this is so, immediately we see the meaning of the above statistics. Omaha, which was the most healthy of the towns discussed, according to the data given, had an excess of female babies; other cities, notoriously containing unhealthy and crowded wards, show an excess of male babies. Further, if disadvantageous conditions lead to an excess of males, it is easy to understand why those males, on the average, should be less able to survive the first year. Hence the excess of male deaths, even when there was an excess of female births. It is to be supposed that those families and wards in which occurred the greater part of the male deaths would show an excess also of male births, though the city as a whole might not show it.

(2) Comparing 1880 with 1890, there is shown a great increase of infant mortality. Thus, for example:

Proportion of deaths under 1 year per 1000 births.

Newark,	under 150 in 1880,	over 250 in 1890		
Jersey City,	" 175 "	" " "	225 "	" "
Denver,	" 125 "	" " "	200 "	" "
Rochester	" 100 "	" " "	150 "	" "
	and so forth.			

Only three or four cities showed improvement, the most marked being St. Louis.

In studying these facts, there seems to be no escaping the conclusion that infant mortality in the large cities is largely on the increase, but it is probable that meteorological conditions may have affected the statistics, *e. g.*, it was perhaps wetter in 1890 than in 1880. However, on examining the causes of mortality for the two years, we get clearer evidence. 1890 shows a decided increase in 'inanition,' and also 'debility and atrophy.' There is also a marked increase in bronchitis and pneumonia. There is a decrease in convulsions and also in cholera infantum as compared with 1880.

(3) It appears that the colored have an almost uniformly higher death-rate than the whites; and this, as a general rule, is no doubt true; but the negro is known to be less susceptible to malaria than the white, yet, owing to his mode of life, his mortality from this cause is much greater in the cities discussed. Again, it appears from the tables that the death-rate of the native whites is greater than that of the foreign whites in most cities, but, as Dr. Billings points out, this must be connected with the fact that the native whites include a much larger proportion of young children. It is interesting to note that in New Orleans the death-rate of the foreign whites was much greater than in any other of the cities, while that of the native whites was less than in many of the cities. In connection with this we observe that the death-rate from malaria in New Orleans was more than double that in any other of the cities, and that it was much greater among the foreign whites; hence it is fair to assume that the native whites of New Orleans exhibit the results of evolution against this disease.

It may be here remarked that the mortality from typhoid fever was greater in the great cities of the United States than in those of England, France or Germany; and in the United States the foreign-born suffered markedly more from this disease than the native-born. Hence perhaps we may assert that the natives of the United States exhibit the results of evolution against typhoid an evolution more marked than that of European nations.

The death-rate of the colored from consump-

tion was more than twice as great as that of the whites. Curiously, it was about twice as great among the children of mothers born in Ireland as among those of mothers born in Germany, and more than three times as great as among those of mothers born in the United States. This may be largely due to the manner of life of the Irish, but it does appear that they are naturally more susceptible to this disease than Germans or Americans. Erroneous conclusions might be drawn from the fact that Denver has a much higher death-rate from consumption than Pittsburg or Kansas City, did we not remember that very many consumptives go to Denver and die there.

In another part of the book are given colored maps of the cities, showing by different degrees of shading the death-rates in the several wards. Information is also given which enables one to form some opinion as to the causes of the remarkable differences between the healthfulness of the wards in all of the cities. These and many other matters might be discussed at length, but enough has been said to show that Dr. Billings' volume should be of great value not only to social reformers, but also to biological students. It may be that in the study of the facts these different classes of individuals will find a common ground, and the teachings of science will ultimately be heard in no uncertain way from the political platform, setting forth truths which will surprise many comfortable and self-satisfied individuals.

T. D. A. COCKERELL.

MESILLA, N. M., June 25, 1897.

GEOLOGIC ATLAS OF THE UNITED STATES.
FOLIO 24, THREE FORKS, MONTANA, 1896.

THIS folio, by Dr. A. C. Peale, consists of 5 pages of text, a topographic sheet (scale 1:250,000), a sheet of areal geology, one of economic geology, one of structure sections, and one giving a generalized columnar section for the district.

The area covered comprises the square degree which lies between the meridians 111° and 112° and the parallels 45° and 46°, in the southwestern, mountainous portion of Montana, and includes 3,354 square miles. In the extreme