

lids. Peripatus, of which so much was expected in throwing light upon the origin of the "Tracheates" seems to fail in this respect, and must be regarded as nearer to the Annelids than to either Myriapod or Hexapod stock.—*J. S. Kingsley.*

**BLOOD CORPUSCLES OF THE LAMPREY.** — S. H. Gage states (*The Microscope*, VIII.) that the blood corpuscles of the lamprey are unlike those of the non mammalian vertebrates and like the mammals in being biconcave, circular and in forming rouleaux. They, however, possess a distinct nucleus, not easily seen in the fresh blood, but rendered visible by staining and by reagents.

**FIBRES OF SHORT MUSCLES.** — In order to ascertain whether the statement made by Kölliker that in the short muscles of the fish, frog and bat, the fibres are of the same length as the muscle, and have rounded ends, is applicable to the more minute vertebrates, Mrs. S. P. Gage has studied the muscles of the mouse, shrew, bat and English sparrow. She concludes (*The Microscope*, VIII.) that the muscular fibres may extend from end to end or may terminate at one or both ends within the muscle, tapering to a point. She further shows that in the muscle fibres even in the limbs and trunk the fibre may branch at either end and that anastomoses may occur between two adjacent muscle fibres in the mouse; and concludes that the difference between the skeletal and cardiac muscles is not so great as has been supposed.

**NOTES ON THE AMERICAN TRIONYCHIDÆ.** — According to Agassiz there are six species of American Trionychidæ, belonging to three different genera.

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As a preliminary report I may note the following conclusions:—

1. The type of *Testudo ferox* Schneider, described by Garden = Pennant in the Philosophical Transactions of London for 1771, is not *Platypeltis* of Agassiz; but a species of *Aspidonectes*.

2. *Platypeltis ferox* of Agassiz is not *Testudo ferox* Schneider, but a new species, which may be called *Platypeltis Agassizii*.

3. *Callinia microcephala* Gray, of the British Museum, with the locality Sarawak, is *Amyda mutica* Les.

<sup>1</sup> To Prof. Angelo Heilprin of the Philadelphia Academy.

According to my researches there are the following American Trionychidæ.

*Platypeltis* Agass.

1. *Platypeltis agassizii* mihi. = *Platypeltis ferox* Agass. non Schneider.

*Aspidonectes* Wagler.

2. *A. ferox* Schneider.
3. *A. asper* Ag.
4. *A. spinifer*, Les. = *A. nuchalis* Ag.
5. *A. emoryi* Ag.
6. *A. muticus* Les.

At the same time I should like to call attention to the enormous sexual difference in *Aspidonectes muticus* Les. It is well-known that the males have very much longer tails than the females on all the Trionychidæ. The male of *A. muticus* has the plastron more developed than the female: the Hyo-, and Hypoplastra meet with the callosities nearly in the median line. The callosities extend very much more in the male than in the female; in an adult male the callosities cover the plastral-bones entirely. A very peculiar circumstance is, that the adult male is only about half as large as the adult female and that the males are in considerably smaller number than the females. Among thirty-six specimens of *A. muticus* from the Ohio River, there were only seven males. The fishermen consider the males and females as different kinds of animals, so great is the difference.

I do not know yet, whether the other Trionychidæ show the same considerable sexual difference. It is very interesting, however, that *Podocnemis* shows it.

Toao Martins da Silva Coutinho,<sup>1</sup> makes the following remarks about the male of *Podocnemis expansa*.

"The male, named *Capitary*, is distinguished from the female, by its size; it is only about 0, 7 m long (the female 1, 2m and more) and the tail which is twice as long, reaches a length of 1. 2 m.—The circumstance that only a small number of *Capitary* are found among hundreds of females, proves, in some way, that a single male is sufficient for the fecundation of a greater number of females."—*G. Baur, New Haven, Conn.*

McGEE ON MEADOW LARKS AND RILEY ON ENGLISH SPARROWS.—At a meeting of the American Ornithologists' Union, held in the hall of the National Museum in Washington, Prof. McGee, of the Geological Survey, read a paper detailing his observations upon the two forms of North American meadow larks, as found in Iowa.

<sup>1</sup> Sur les Tortues de l'Amazone, Bulletin de la Société Imperial d'acclimatation, Avril, 1868.