ter, species of *Dentalium* Noë, and specimens of *Serpula*, also a large shark's tooth belonging to the genus *Carcharodon*.

During the autumn of 1885 I visited Zante in the Austrian Lloyd's steamer from Trieste to Athens. As the steamer only anchored for a few hours, I had time only for a walk to the top of the hill overlooking the town. A chain of hills trending nearly north and south forms the backbone of the Island of Zante. At the latitude of the town of Zante this chain is broken by a strip of alluvial plain about 2 miles wide, stretching from the eastern to the western coast of the island. The Castle hill is a mass of Pliocene marl, rising about 300 feet above this plain at its eastern edge. The steep side of the hill is channelled with innumerable ravines and gullies, and of the same colour as the Pliocene beds of Lattakia. In coming down the hill, I observed in one locality, within a radius of 30 feet, the following species:—

Cerithium vulgatum, Brug.
Murex conglobatus.
Cardium edule, L.
Venus (Cytherea) casina, L.
Ostrea, sp.

All of these were more or less embedded, or had been worked out by the rain, and lay at the bottom or sides of the gullies.

London, June 23.

GEORGE E. POST.

The Perception of Colour.

I HAVE not yet heard it stated that our perception of colour is slower for the blue and violet rays than for the green, yellow, and red ones; and as I think that this subject has interest for many of your readers, they will perhaps carry out the following simple experiments on themselves and their friends.

A luminous object, such as a distant gas-lamp, an electric light, or the moon, is looked at through a direct-vision prism after it has been removed out of its case. The spectrum is of course a bad one, but brilliant. Now, if the prism is rolled backwards and forwards between the fingers, so that the spectrum oscillates through a small angle, it appears to bend like a riding-whip which is being flicked from side to side. The blue and violet parts of the spectrum always lag behind. In fact, as far as I could see, the spectrum, instead of being straight, seemed to be gently curved, but very sharply bent between the indigo and the violet part, which would show that the more refractive rays are seen by us very much later (even proportionately) than the others.

As everybody is not able to detect this bending of the spectrum, the following experiment should also be carried out. Instead of rolling the prism, it is passed between the eye and the object as quickly as possible, so that the spectrum is only seen for an instant; and it will be distinctly noticed that it seems to flash from the red end towards the violet—a sure sign that the red is seen first and the violet last.

C. E. STROMEYER.

Strawberry Hill, July 5.

Breeding for Intelligence in Animals.

SEEING the results that have been attained by breeding for special qualities in dogs, why should not systematic efforts be made to breed for general intelligence? The correspondents who have from time to time furnished you with illustrations of canine sagacity must be sufficiently numerous to form an Association to promote the interbreeding of intelligent dogs, and the distribution of their offspring to those who would foster and cultivate their intellect.

H. RAYNER.

June 27.

The Nephridia of *Lanice conchilega*.

SINCE my paper on the nephridia of *Lanice conchilega*, Malmgren, appeared in NATURE (June 16, p. 162), I have learned that the chief peculiarity to which I called attention in my description of the nephridial system had been observed and mentioned before. In the monograph on the Polycladen by Dr. Arnold Lang, published in 1884, and forming one of the series "Fauna und Flora des Golfes von Neapel," p. 677, occurs the sentence: "Bei *Lanice conchilega*, Pallas, hat neuerdings Ed. Meyer bei erwachsenen Thieren jederseits einen Längscanal aufgefunden, welcher alle Segmentalorgane mit einander verbindet, und nur an einer Stelle durch ein Dissepiment unter-

brochen ist." Dr. Ed. Meyer has called my attention to this passage, and informed me that Dr. Lang received permission from him to make use of this and other observations which he (Dr. Meyer) had made in the course of his studies on Chaetopoda. The sentence quoted has been also cited by Dr. R. S. Bergh in an article on "Die Excretionsorgane der Würmer," in *Kosmos*, 1885, Bd. ii. p. 115. That sentence is the only account yet published concerning Dr. Meyer's observations on the nephridia of the species in question. When my paper was printed I was unaware of the existence of the sentence in Dr. Lang's monograph, or of the reference to it made by Dr. Bergh. Unfortunately I had not had time to read the monograph through, and had not suspected that there was in it a mention of a novel fact concerning the anatomy of Chaetopoda. My examination of *Lanice conchilega* was made in entire ignorance that Dr. Meyer had already investigated its anatomy; otherwise I should of course have mentioned his name in the summary I gave of previous work on the subject.

J. T. CUNNINGHAM.

Edinburgh, June 30.

THE PARIETAL EYE IN FISHES.

THE discovery of the parietal eye in lizards by de Graaf and Spencer is so recent that it is hardly necessary to preface an account of the structure of that organ in another group with the history of their researches.

Its high development in some lizards, and, so far as we know, its rudimentary nature in all other existing groups of vertebrates, including fishes and Amphibia, and lastly its entire absence in Amphioxus, are, for those who see in the latter the "Urvater" of the Chordata, points which made it difficult to form any satisfactory morphological conception of its origin.

True, something that admitted of comparison with it could be found in larval Ascidians; and Spencer, at the end of his able paper, endeavoured to trace its "rise and fall" from its supposed homologue, the larval Tunicate eye.

With Wiedersheim and Carrière, I consider that Spencer has placed the eye of the larval Tunicate at the wrong end of the series—if it should come in at all; for, as experience has abundantly shown, it is very easy to compare organs of the higher vertebrates with what are supposed to be homologous organs in Amphioxus and the Tunicata, and at the same time to be entirely in error. I need hardly refer the reader to the instances in which such comparisons have been shown by Dohrn in his famous "Studien" to have been entirely wrong; and holding with him that Amphioxus and the Tunicata are very degenerate vertebrates, and that from them but little can be got for the elucidation of the problems of vertebrate morphology, I felt the necessity of looking elsewhere for the solution of that of the parietal eye in its relations to the paired eyes.

With these problems in view I began to study the development of the pineal eye, and also its structure in such fishes as might be expected to retain it in a more developed condition than most of those we know.

At Prof. Wiedersheim's suggestion I examined the structure of the "pineal gland" in Ammocetes of *Petromyzon planeri*, in the hope that something more might come out beyond that which the able work of Ahlborn has already made known to us. The result was, in a sense, disappointing, but not unexpected, for, remembering Dohrn's researches, and bearing in mind that the paired eyes of *Petromyzon* are rudimentary in Ammocetes, first becoming capable of vision in the adult, I had firm hope of good results from the examination of sexually mature animals.

In the adult the discoveries made exceeded my expectations; and after examining this animal I proceeded to make sections through the brain of Myxine. Here, again, the finds were important, and the research was extended to specimens of *Bdellostoma* and *Petromyzon marinus*,