the *Pennatulæ* the varicosities of the trunk correspond to the places where the asexual individuals are seated; *Fumculina quadrangularis* shows them arranged in longitudinal rows between the sexual individuals; lastly, the *Virgulariæ* always present behind each lamella, upon their trunk, a simple transverse row of asexual individuals.

It is probable that all the Pennatulidæ present a similar dimorphism; at least, in *Renilla* we see, between the fully developed polypes, rudimentary bodies which seem to be individuals of a different form. On the other hand, with the sole exception of the genus *Sarcophyton*, M. Kölliker has sought in vain for dimorphism in the Alcyonidæ and Gorgonidæ. It must not be forgotten, however, that there seem to exist some relations between the buds of the sexual and asexual individuals in the polymorphic polyparies; for, in *Veretillum* at least, the asexual individuals seem, under certain conditions, capable of being transformed into sexual individuals.

M. Kölliker has also been able to investigate a polypary of *Tubipora*, still enveloped by the soft parts, obtained from the Fiji archipelago. Notwithstanding the great resemblance of the polyparies of the *Tubiporæ* to those of the Madripores, the author considers that in their whole structure and development these polypes are Alcyonaria which must occupy a place by the side of the genus *Clavularia*. Both the tentacles and the body of the polypes of *Tubipora* contain spicules.—*Würzburger Zeitung*, January 4, 1868; abstract by E. Claparède in *Bibl. Univ.* February 15, 1868, *Bull. Sci.* p. 171.

On the Saliva and Salivary Organs of Dolium galea and other Mollusca. By MM. S. DE LUCA and P. PANCERI. (Note by E. CLAPARÈDE.)

Ten years ago M. Troschel made the unexpected discovery of the presence of a considerable quantity of free sulphuric acid in the saliva of a Gasteropod, namely *Dolium galea*. MM. de Luca and Panceri have lately resumed the investigation of this subject, and have confirmed, in their general features, the results obtained by their predecessor. They find the quantity of free anhydrous sulphuric acid varying from 3·3 to 3·42 per cent., a quantity which is even a little more than that ascertained by M. Troschel. On the other hand the Neapolitan naturalists have found no trace of free hydrochloric acid, whilst the analysis formerly made by Boedeker at the request of Troschel indicated 0·4 per cent. of this.

It was interesting to ascertain how far this phenomenon is isolated. MM. de Luca and Panceri have for this purpose investigated the saliva of various mollusca, and found free sulphuric acid in notable proportion in four species of *Tritonium*, in a *Cassis*, a *Cassidaria*, two *Murices*, and an *Aphysia*. Moreover in all these mollusca, including the *Dolium*, these naturalists have seen a gas evolved from the salivary liquid at the moment of the rupture of the gland. This gas was found to be pure carbonic acid, and its volume in one case amounted to as much as 20·6 cubic centimetres from a gland of about 75 grammes in weight.

These different salivary liquids have the properties of not undergoing alteration spontaneously in contact with the air, and of preserving unaltered albuminoid substances immersed in them.

The part played by these acids, which are secreted in such considerable quantities, is still very obscure. The authors remark that, in the mollusca in question, the blood is still alkaline; they promise further investigations of the subject.—*Bibl. Univ.*, February 15, 1868, *Bull. Sci.* p. 170; abstract from *Rendiconto d. R. Accad. Sci. di Napoli*, August and September 1867.

On an Hermaphrodite Nemertian (Borlasia hermaphroditica) from St. Malo. By W. KEFERSTEIN.

Great importance was formerly attributed in zoology to the union of the two sexes in the same individual, or their separation in two distinct individuals; and quite recently a French naturalist has endeavoured to distribute the Invertebrata into classes, chiefly in accordance with this character.

It is, however, now certain that monœciousness and dioeciousness have only a secondary value. Thus we know, for example, that both in the Annelida and in the Nematoda, which generally have the sexes separate, a certain number of hermaphrodite species are to be met with; we also know some dioecious Trematoda, in a group otherwise entirely hermaphrodite; and recently, in the group of hermaphrodite *Planariæ*, we have become acquainted with a species in which the sexes are separated (*Planaria dioica* from St. Vaast).

Hence the discovery made by M. Keferstein at St. Malo of an hermaphrodite Nemertian is not particularly surprising; but in any case it is an important fact, since it is the first example of hermaphroditism in this group. In this animal, to which M. Keferstein gives the name of *Borlasia hermaphroditica*, the testes were found full of mature spermatozooids, and the ovaries of ovules in course of formation. The author having studied only a single individual, it might be suspected that the organs designated by him under the name of testes were seminal receptacles filled with semen; nevertheless M. Keferstein believes he has ascertained that this interpretation would be erroneous.

However this may be, the author asks whether the discovery of an hermaphrodite Nemertian would not serve to throw a little light upon the Nemertians in the perivisceral cavity of which well-developed living young have been found by M. Max Schultze, M. Claparède, and M. Keferstein himself.—*Göttinger Nachrichten*, January 15, 1868; abstract by E. Claparède in *Bibl. Univ.* February 15, 1868, *Bull. Sci.* p. 173.

Anatomical Investigation of some Blind Coleoptera.

By M. C. LESPÈS.

Many insects destitute of eyes have been described in the last few years, and among these the Coleoptera especially have attracted

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