rinum, Cless.; *P. ovatum*, Cless.; *Limnæa truncatula*, Müll.; *Cottus gobio*, Linn.; *Phoxinus lævis*, Ag.; *Rana temporaria*, Linn.; *Triton alpestris*, Laur.

The results here communicated were obtained in August 1889, during a long zoological excursion, which was unfortunately much interfered with by unfavourable weather. The examination of the three basins referred to, which are so different in every respect, will be continued for several years. At the same time the investigations will be extended to some other lakes of the Rhætic Alps, especially to the Lünersee, on the Seesaplaner. In this way it may be possible to obtain a complete picture of the Lake-fauna of a definite, narrowly bounded Alpine region, and at the same time to approach more closely to certain biological questions. The faunistic and biological results of 1889 are described in detail in a report which appears in the 'Verhandlungen der Naturforschenden Gesellschaft in Basel.'

Protozoa and Rotatoria were this time not particularly collected; but these groups will be studied in future years. The lists of the other groups must also be greatly enriched.—*Zoologischer Anzeiger*, No. 326, January 27, 1890, p. 37.

On the Actinian Genera Ægir *and* Fenja.

By Prof. F. E. Schulze and Dr. D. C. Danielssen.

In a 'Notice on the Actinida of the Norwegian North-Atlantic Expedition,' published in the Annual Report of the Museum at Bergen, Dr. Danielssen described two new genera, allied in appearance to *Peachia* and *Edwardsia*, but in which a complete intestine was said to pass from the mouth to the posterior extremity of the body, to open there in a functional anal pore. In a communication to the 'Gesellschaft Naturforschender Freunde zu Berlin,' on the 19th February, 1889, Prof. F. E. Schulze expressed some doubt as to the validity of these descriptions, and suggested that the forms in question might possibly have been examples of species of the family Edwardsiidæ which had been cut in two by the dredge. In answer to this suggestion Dr. Danielssen wrote to his critic, and a portion of his letter was read by the latter at the meeting of the same society on the 16th April last. Dr. Danielssen says:—

"You must not forget that I am an old zoological fisherman, who has worked with the dredge for fifty years, and that during this time I have met with hundreds and hundreds of animals which were mutilated in one way or another. From many years' experience, therefore, I can perfectly well distinguish such specimens from uninjured ones. And if your supposition were correct, and I had had to do with the torn-off anterior parts of animals, then, even if a mistake had been at all possible, the lower extremity of the animal must show a constriction which would at once strike the experienced observer. Such a constriction, in fact, does occur in certain injured

specimens, in which, moreover, the lower extremity of the body-cavity is open; but it is entirely wanting in the well-preserved individuals described. In the latter the lower extremity of the body-cavity, which is divided into 12 chambers, is closed by a distinct floor, which surrounds the anus, and is divided by the 12 septa into the same number of segments. In each of these segments, in *Fenja*, there is an exceedingly fine oval aperture, partly covered by a fold; both the floor and the aperture are clothed with epithelium. Here, consequently, there can be no question of tearing away.

"As regards *Ægir*, here also the described animals were quite uninjured. Some specimens were torn by the dredge, but could be distinguished from the uninjured ones without any difficulty. In *Ægir* the body-cavity is likewise divided into 12 chambers by 12 septa, which reach to the floor, where they are firmly attached, and which they consequently divide into 12 segments surrounding the anus. At the lower end of the rectum in this animal there are fissures through which the chambers of the body-cavity communicate with the rectum. These fissures do not extend to the anus, but terminate some millimetres above it and are clothed with epithelium. During the observation of living animals I frequently saw tolerably long, solid masses of excrement discharged from the anus, after which the aperture contracted again. In *Ægir* consequently there can be no question of mutilation."—*Sitzungsber. Gesellschaft Naturf. Freunde zu Berlin*, 1889, pp. 55 and 99.

On the Anatomy and Developmental History of Petromyzon Planeri. By M. K. Nestler.

Investigations upon *Petromyzon Planeri* made by the author in Prof. Leuckart's laboratory have revealed some interesting facts, especially with regard to the development of the definitive œsophagus during the metamorphosis. Dr. Schneider, in his "Contributions to the Comparative Anatomy and Developmental History of the Vertebrata," states that the œsophagus is produced as a new formation, an invagination originating from the anterior extremity of the intestinal fold, continuing forwards the mesenterial fold of the stomach, and running into the dorsal margin of the branchial cavity. Although at first hollow, this soon becomes solid, and then extends, as a solid cellular cord, to the velum. The latter thus furnishes not only the epithelium, but also the mucous membrane and musculature of the œsophagus.

The author's investigations led to different results. The œsophagus really originates as a *solid cord*, but its cells furnish *only the epithelium* of the definitive œsophagus, the central cell-material being absorbed; *the musculature originates from the surrounding connective tissue.*