3. Zygaena Carniolica Sc. Ent. Carn. var. Ragonoti Gian.

Da Giacinto Gianelli, Torino.

(Con 1 fig.)

eingeg. 31. März 1902.

Questa varietà è talmente spiccante e dissimile dalle altre fin qui descritte, da meritare di essere nominata, epperciò la dedicai al grande lepidotterologo Francese Ragonot, stato anni sono cosi inaspettatamente rapito agli amici ed alla scienza; massime che di questa varietà conservo in Collezione due esemplari (♂♀) stati da me raccolti in principio d'agosto a Monte Musineto presso Torino.

Zygaena Carniolica Sc. Ent. Carn. var. *Ragonoti* Gian.

Il rosso ha pressochè invaso tutto il campo delle ale superiori, talche a primo aspetto si direbbe quasi un ibrido della *Zygaena Erytrus* Hb., se le due macchie delle ale superiori non la caratterizzassero per una *carniolica*. — Per le antenne ed il restante è in tutto simile al tipo della *Zygaena carniolica*.

Torino 29. 3. 1902.

4. An Extraordinary Animal.

By Hubert Lyman Clark, Prof. of Zoology, Olivet College, Michigan, U. S. A.

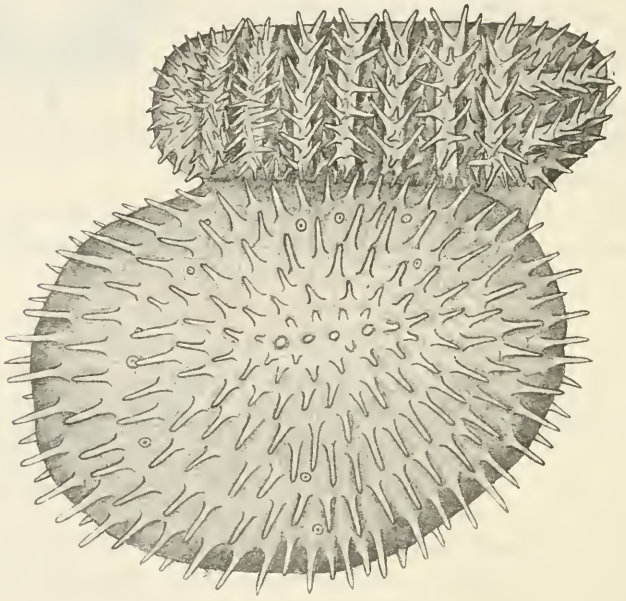
(With 1 fig.)

eingeg. 2. April 1902.

There was recently sent to me from the United States National Museum, a most curious specimen, which it was suggested might be an echinoderm, and if so perhaps I could determine its class. It probably is an echinoderm but whether an echinoid or a holothurian, I am unable to decide. This animal is provided with a firm external skeleton, which completely encloses it. The body consists of two parts, one above the other, and so far as I could determine, with no internal communication whatever. The lower part is ovoid and much the larger, while the upper part is more nearly cylindrical, and projects backward beyond the lower part. The skeleton of the upper part consists of a calcified membrane strengthened by 7 transverse rib- or hooplike thickenings, which are lighter colored than the membrane. At the posterior end are 2 very short longitudinal ribs, of similar appearance. The skeleton of the lower part is made up of numerous

small, closely united plates, of unequal size and with no definite arrangement. Each plate bears a spine about 1 mm in length which terminates in a blunt point. There are similar spines borne all over the upper part of the animal. The apines are not jointed to the skeleton but break off easily at the base, leaving small, nearly circular, raised, white spots. The whole external appearance of the lower part of the animal is thus quite similar to the body of the holothurians, *Sphaerothuria* or *Echinocucumis*. But the spines when examined under the microscope appear more like echinoid spines.

The specimen had been cut in two vertically when it came into my hands, but the internal anatomy thus revealed throws little light,



if any, on the nature of the animal. In the upper chamber lies a much-branched gland, resembling the gonad of a holothurian. Under the microscope, this showed little structure, but I think there can be no doubt that it is a reproductive organ. This gland is attached to the floor of the chamber, while closely attached to the roof and sides are several nearly spherical bodies, about 2 mm in diameter. These are surrounded loosely by a thin membrane and seem to consist of yolk. I can find no evidence whatever of any communication between this chamber and the exterior and I do not see how there could have been any during life. The lower chamber is almost wholly filled by what appears to be part of a digestive tube, with a large lumen. It

is closely united with the body-wall on all sides by very numerous short strands of a soft yellowish-brown tissue. There is no evidence of any communication between this chamber and the exterior, tho at the smaller end there may have been an opening, at some earlier day. There are no tentacles, pedicels or other evidences of a water vascular system nor are there any muscles, nerves or sense-organs, so far as macroscopic observations show. — The specimen is about 15 mm in length and the greatest height is about the same. — The color is light brown.

This curious animal was dredged by the »Albatross« in 1588 fathoms of water off the Queen Charlotte Islands, on a bottom of ooze and at a bottom temperature of 35,3° Fahr. It has been in alcohol for some years and the inner tissues are very soft. There can be little doubt that the specimen is a monstrosity; but of what? My own opinion is that it is a holothurian, related to *Sphaerothuria*, but the spines and the »digestive tube« (?) are very much like those of an Echinoid. — The most puzzling question to me is, how did an animal with apparently no mouth or anus and no means of locomotion reach such a considerable size?

Olivet, Mich., March 13, 1902.

5. On a Pair of Ciliated Grooves in the Brain of the Ammocoete, apparently serving to promote the Circulation of the Fluid in the Brain-cavity.

By Arthur Dendy, Canterbury College New Zealand.

(Communication made to the Royal Society, London.)

(With 6 figs.)

eingeg. 4. April 1902.

The peculiar and apparently hitherto undescribed structures which form the subject of the present communication, were first discovered in the course of an as yet unfinished investigation of the parietal organs in the New Zealand Lamprey (*Geotria australis*). The Ammocoete of this interesting species is known to us only through two specimens: one of these was briefly described by Kner in 1869[1]; the other was for many years in the Museum of the Otago University, Dunedin, and was forwarded to me for investigation by the present curator, Professor W. B. Benham, D.Sc., to whom I desire to express my indebtedness for his great kindness.

The specimen which I have thus had the opportunity of investigating was labelled in the handwriting of the late Professor T. J. Par-

[1] Reise der Österreichischen Fregatte Novara um die Erde, Zoologie, Bd. 1, Fische, p. 421.