is known. Fore wings bright orange-red, colour of *caripeta*. A white somewhat diffuse longitudinal stripe from base to end of median vein, followed by a slight oblique white clouding. Subterminal line white, contrasting with the red wing, running inwards a little on costal and internal margins. The wing is more yellowish or orange at base, redder outwardly. Tegulæ and sides of collar orange. Head above and collar centrally white. Legs red outwardly; palpi red, white at base. Thorax beneath white. Hind wings pale translucent fuscous, with a fine terminal line and white fringes, interlined at base. Beneath yellowish fuscous, with a red mark on primaries at costal inception of transverse line. *Expanse* 30 millim. New Mexico. No. 1021.

This brilliant species wants the usual inner transverse line on fore wings above.

VIII.—*Report on a Journey for the Investigation of the Torpedinei extant in the Museums of England and Holland.* By Prof. Gustav Fritsch*.

I take the liberty of laying before the Royal Academy of Sciences the following report upon the investigations carried on by me during the month of August of the present year in England and Holland †.

As there could be no doubt that the collections of the British Museum in London would offer the greatest chance of furthering my undertaking, I travelled direct to London on Saturday, August 5, and on the following Monday I had already in my hands the desired material, as Dr. Günther had had it got ready for me, in kind compliance with my wishes expressed in writing.

Among the Torpedinei there was the typical specimen of *Torpedo hebetans*, Lowe, the characters of which made me think it probable that it was allied to *T. occidentalis*, Storer, as well as to *T. californica*, and thus led to a convic-

* From the 'Sitzungsberichte der königl. preuss. Akademie der Wissenschaften zu Berlin,' November 23, 1882, p. 1007.

† *Note by Prof. E. Du Bois-Raymond.*—Prof. Fritsch's journey had for its object to test, upon more species of Torpedinei than Prof. Peters could place at his disposal in the museum here, the correctness of the conclusion that I had deduced from what I call the Delle Chiaje-Babuchinic proposition, namely that every good species of Torpedinei possesses as a diagnostic character a certain average number of columns. See my "Vorläufige Bericht über die von Prof. Gustav Fritsch in Ægypten und am Mittelmeer angestellten neuen Untersuchungen an electrischen Fischen," Sitzungsb. Akad. Wiss. Berl. 1882, pp. 487 *et seqq.*

tion that, in accordance with the law of correlation, the number of columns in the electrical organs would also be remarkably large.

It merits my most grateful acknowledgments that Dr. Günther acceded to my pressing request and allowed me to make the necessary anatomical examination of the typical specimen—an examination which established the correctness of the supposition expressed, and showed the three above-mentioned species (*T. occidentalis*, *californica*, and *hebetans*), by the structure of their electrical organs also, to be three nearly allied species. Now it will only be necessary to carry out the numeration of the columns in *T. nobiliana*, Bon., which has always been a doubtful species, in order to establish its relations to the others.

The above-indicated comparison satisfactorily confirms the agreement of the marine faunas of the Atlantic and Pacific coasts, already affirmed by Dr. Günther himself upon other investigations, as well as the diffusion of American forms of marine animals as far as the European shores.

Besides this particularly important result, I had now to ascertain the structure of the electrical organs, their proportion in the two sides of the body, and the mosaic of the columns, from the material in the museum, in a series of rare or elsewhere inaccessible species. These investigations were carried out upon the following species, the greater part of which were new to me, and most probably had never been previously examined for their electric organs—namely, *Hypnos subnigrum*, A. Dum., *Narcine tasmaniensis* (adult and embryo), *Narcine lingula*, *Narcine Timlei*, *Torpedo fuscomaculata*, *Astrape dipterygia*, and *Astrape capensis*. Sketches were made for the purpose of future comparison of the organs when exposed, as well as of their relation to the form of the body; the number of columns was ascertained in all; and the diagrams of the numerations made with copying-ink upon glass were transferred to paper.

Except *Torpedo nobiliana* (which I have never been able to get hold of, in spite of all my endeavours), no species now exists in European museums which is not represented in the tables compiled by me; and for this gratifying completion I am mainly indebted to the kind reception I met with in the British Museum*.

By constant hard work I was able to complete the above-mentioned researches in the course of a week, and then went to the Royal College of Surgeons, to ascertain whether any

* I do not know whether *T. Tschudii* exists in European collections.

thing was still extant of the gigantic specimen captured near Torbay in 1773, and described by Hunter. From my numerations in *T. occidentalis*, made in Vienna, compared with Hunter's, I had been led to regard the latter as belonging to that species.

Although in the College of Surgeons, as in the British Museum, the collections were in a state of change and renovation, I was most kindly assisted in my investigations by the officers of the establishment, and found, as the remains of the above-mentioned fish, a well-preserved preparation (Descriptive Catalogue, no. 2176) showing the cranial capsule opened, the brain, and spinal cord, as well as the system of the cephalic nerves and electrical nerves; of one of the organs (the right) the inner marginal part, where the nerves enter, is preserved. This extremely interesting historical preparation, which had been completely forgotten in England, was sketched by me of the natural size, as well as this could be done without opening the glass.

After the completion of these investigations I quitted England, seeing that there was no hope of finding in other towns any important material in a department which, even in the British Museum, was represented by *unica*. I directed my steps towards the celebrated university-city of Leyden, where the hope of finding further material seemed to be most favourable. This hope was not fulfilled, as the poverty of the Leyden collection in this department proved to be unexpectedly great. A few hours sufficed to run through the list of the electrical fishes there, and to ascertain that, even if permission could have been given to prepare them (which, owing to the absence of the officers, was not attainable), no important gap in the Table could be filled up. It is only a further confirmation of the fact that, notwithstanding many suggestive investigations, the electrical fishes are treated with great neglect by the majority of naturalists.

There was still a slight chance of obtaining further material, namely to try whether the dealers in objects of natural history in the capital had any thing of the kind for sale. I therefore quitted Leyden in the evening of the day on which I had arrived there, and took my way to Amsterdam. Contrary to my expectation, even this hope proved to be vain, as the interest there at present seems to be entirely concentrated upon living animals and plants. I could find no dealer in Amsterdam; and consequently it could be of no use to prolong unnecessarily an expensive sojourn. On the morning of the 17th I reentered Berlin.

From this latter part of my journey the most important

result appears to be that it is exceedingly desirable to interest travellers sent by the Academy, as well as other educated persons in foreign countries, in procuring the material which is so remarkably scarce in collections. It would scarcely be profitable to visit other European cities, Hamburg perhaps excepted, for the purpose of examining preserved material.

IX.—*Description of a new Species of* Anthrenus *from India* (*Coleoptera, Dermestidæ*). By Charles O. Waterhouse.

For many years there have been in the British Museum numerous specimens of a species of *Anthrenus* from the Himalayas. Recently specimens of the same species were sent from the Madras Presidency for determination. I have, however, failed to identify the species with any one described; I therefore venture to characterize it as new.

Anthrenus vorax.

Subrotundatus, piceus; supra squamulis ochraceis dense tectus, maculis albis notatus; subtus dense albo squamosus; pedibus piceis, femoribus ochraceis, abdominis segmentis 2°–5^{m} singulis ad latera gutta ochracea ornatis.

Long. 3¼ millim., lat. 2½ millim.

This is a very broad species, moderately convex; closely covered above with sandy ochreous, short, ovate scales. There are some whitish scales on the forehead. The scales on the sides of the thorax (except at the anterior and posterior angles) are white; but there is a yellow spot in the middle of the white patch; there are a few white scales at the middle of the base. The elytra have the following white marks:—an elongate spot on the suture at the base; a round spot at the extreme base, a little nearer the suture than the shoulder; a somewhat large triangular patch below the shoulder, generally more or less connected with the sutural mark by some white scales; a small spot close to the suture, another, larger, round spot (a little more removed from the suture) near the apex; at the side there are two small spots—one a little behind the middle, the other not far from the apex. The apical segment of the abdomen is dusky in the middle. The antennæ are pitchy red, eleven-jointed, the three apical joints forming a somewhat large, short-ovate club; the ninth joint is much smaller than the tenth, and the eleventh is distinctly larger than the ninth and tenth together.