

θ cannot be thus seen, then it appears to me that all time spent in their search in the sun's vicinity, except during a total or very large partial eclipse, would be time lost.

Rochester, N.Y., November 8

LEWIS SWIFT

Colour-Variation in Lizards.—Corsican Herpetology

IN a communication sent to you by my friend Mr. Wallace, under the title, "Remarkable Local Colour-variation in Lizards," published in *NATURE*, vol. xix. p. 4, mention is made of the well-known case of *Lacerta* (*Podarcis*) *muralis*, var. *faraglionensis*, only found on the Outer Faraglione of Capri, but there are many similar cases to my knowledge, and I add a note of them, for the fact, although unexplained, is one of great interest. During the last two years, while engaged in forming a complete series of the Italian vertebrate animals, I have visited and explored most of the Mediterranean islands included in the Italian sub-region, and I have invariably found that our common lizard (*Podarcis muralis*) constantly presents dark varieties on *islets adjoining small islands*: this is the case on the Sciuola, near Pianosa, on the Scoglio di Mezzogiorno, off Palmarola (Ponza), on S. Stefano, off Ventotene, on the Toro, off Vacca (Sardinia), on Lisca nera, Lisca bianca, and Bottaro, off Panaria (Lipari), on Filifa, off Malta, and on Linosa, near Lampedusa. The extreme cases are those of the Faraglione off Capri and Filifa, where a nearly intense black is obtained; next comes Toro, and next Linosa; only the latter case might be explained by the "struggle for existence" theory, for the lava rocks of Linosa are black; but such is certainly not the case with the other islets, and, *pace* Dr. Eimer, the Faraglione is gray, while Filifa—on which I spent a pleasant day in October last—is painfully white in the glaring Maltese sun, so that its black lizards are most conspicuous. I may add that few creatures I know vary more in colour than *Podarcis muralis*, even in the same locality; two most distinct varieties occur promiscuously on the small flat islet Formica di Grosseto.

Going over my Mediterranean herpetological notes reminds me of an interesting discovery I made last summer in Corsica, an island of great interest, which, strange to say, is rarely trodden by naturalists. Most of your zoological readers will be aware that, in 1839, Prof. Savi, of Pisa, described two new species of Italian Urodela, both from Corsica, viz., *Salamandra corsica* and *Megapterna montana*. The former has been quite neglected by modern herpetologists, or else placed among the synonyma of *S. maculosa*, simply because no one had Corsican specimens to compare. Now it is evidently nearly allied to the Continental form, but quite distinct, as the specimens I collected testify, all of them presenting the distinctive characters pointed out by Savi forty years ago. A nearly similar lot befell *Megapterna montana*, which Savi described nearly contemporaneously with Gené's description of *Euproctus Rusconii*, from Sardinia. Buonaparte, in his "Fauna Italica," united the two under the name of *Euproctus platycephalus*, given by Gravenhorst in 1829 to a newt, *sine patria*, preserved in the Breslau Museum; and most naturalists have followed Buonaparte, especially later writers on the subject, as Strauch, De Betta, and Schreiber, whilst others, acting more wisely, stuck to Gené's name. I believe that since Savi's day no one has studied the Corsican form, whose essential characters pointed out by the Pisan naturalist, who had only two specimens to work on, were overlooked even by his contemporary, the Prince of Canino; this explains all. Last year I rambled and collected all over Corsica, and found Savi's newt quite common in all the mountainous districts; I secured about 150 specimens of both sexes and all ages, even larvæ, and on my return to Florence was much surprised to find them quite distinct from the Sardinian *Euproctus* I possess; this made me refer to the original descriptions, and thus I found that Savi and Gené had described two very distinct species, and described them well. The two Italian species of *Euproctus* may be thus defined:—

E. Rusconii, Gené: Parotids wanting. Skin smooth, with small whitish tubercles scattered, especially about the sides of the head and neck. Female with a small conical pointed fibular tubercle, very like a rudimentary finger. Hind fingers slender and cylindrical. Irregular dark blotches on the throat. Size somewhat larger than the succeeding species. Hab. Sardinia.

E. montanus, Savi: Parotids small but distinct. Skin rough and granular. Female with a large, obtuse, compressed fibular tubercle, more like a ridge or crest, than anything else. Hind fingers stout, broad, and flattened. Throat uniform, rusty,

without blotches; often a red or yellow dorsal stripe. Hab. Corsica.

As to *Euproctus platycephalus*, Gravenh., only a careful examination of the type-specimens, if yet existing in the Breslau Museum, can settle to which form it ought to be referred, but if their locality is unknown, I believe it better to suppress the name. *Euproctus platycephalus* is said to be found in Spain, but as I have no Spanish specimens, I cannot give any opinion on that form. In conclusion, I may add that Buonaparte was perfectly right in separating from the former the North African species *T. Poiréti*, which is very distinct from our Italian *Euproctus*, in the shape of the head and body, and in the complete absence of any fibular tubercle in the female; it ought to be called *Glossoliga Poiréti*.

HENRY HILLYER GIGLIOLI

Florence, November 16

Commercial Crises and Sun-Spots

REFERRING to Prof. Stanley Jevons's article upon "Commercial Crises and Sun-spots" in *NATURE*, vol. xix. p. 33, I beg to draw your attention to the inclosed circular which I issued to my subscribers in April last.

The figures relating to the "Failures in England and Wales," were compiled by my clerks, under my own direction; those relating to the failures in the United States and Canada were supplied by Messrs. R. G. Dun and Co., of New York and London, and it may be observed how nearly they agree (*i.e.*, the failures in England and Wales, and those in the United States and Canada) in their fluctuations, and that there is an agreement between both sets of figures and the sun-spot period.

I have not been able to obtain similar figures for continental states, but I have observed that the complaints of depression in trade there agree, in substance and in time, with those in this country and North America. I have also noticed similar complaints from the southern hemisphere, especially New Zealand.

I refer to Dr. Hunter's suggestion of an Indian famine period: in my circular, but I do not find that the famine period in India agrees, in point of time, with the depressions in the temperate zones; it is very probable that the excess of sunshine which produces drought and famine in India has an opposite effect on the prosperity of England and all other countries lying between the same isothermal lines, and that the more moderate degree of sunshine which may suit the Indian cultivator is insufficient to properly ripen English wheat and other produce (oats excepted).

Since April last I have taken several opportunities of ascertaining from agriculturists the effect of the variations in the sun-spots upon their yield of wheat, &c., and I find an agreement between them that during these years of minimum sun-spots the yield has proved bad when thrashed out, in consequence of the kernels being much smaller than in other years. I do not know whether the test has ever been tried or not; if not, I would suggest that some scientific observer should weigh an ounce, or a few ounces, of the kernels of each kind of grain grown in England every year, and count the number of them. I think it would be found that in years of maximum sun-spots wheat and barley kernels weigh their heaviest and oats their lightest, and that these proportions would be reversed in the years of minimum sun-spots. The difference in each kernel or in an ounce of them may, taken alone, appear trifling; but if it is an indication of the difference in the yield of the harvest throughout the whole kingdom, it may be a fact of the greatest importance as showing the cause of the cyclical variations in the prosperity of the country, and it may be of great value to land-owners and agriculturists generally as a guide in the rotation of crops and in allowing fields to lie fallow.

It is in this direction that I look for the causes of commercial depression. The whole of our "home" trade is dependent upon internal prosperity, and likewise a large proportion of our "foreign" trade. Other causes may have some effect upon either or both, such as peace or war, trade-unionism, bank-management, and the like; but the influence of the sun is too far-reaching and too powerful to be checked thereby. Man, by studying the working of its influence and power upon his daily life, may learn how to guard against much of the distress which periodically recurs.

JOHN KEMP

Aspley Guise, November 16

"London, April, 1878

"Failures in England and Wales

"We append a Summary of the failures in England and