

a White Rain- or Fog-Bow" (*Quart. Journ. Met. Soc.*, October 1875).
A. RAMSAY

A Nocturnal Hymenoptera of the Genus *Bombus*

MR. LEONARDO FEA, Assistant in the Museo Civico of Genoa, who is now engaged in a zoological exploration of Upper Burmah, and who has extensive experience in collecting insects, writes to me from Mandalay that, on the night of January 17, as he was walking in the "compound" of Dr. Barbieri, the moonlight being very bright, he was surprised to hear humming around a clump of flowering acacias. He at once proceeded to fetch a net, and, on capturing the hummers, found, to his no small astonishment, that he had got a fine species of the genus *Bombus*, of a uniform fulvous colour.

Being unaware that the fact of a nocturnal melliphagous Hymenoptera (all of which are eminently diurnal) has been before noticed, I should be glad to hear of any other cases to the point.
G. DORIA

Genoa, February 16

PHYLLOXERA AT THE CAPE

WE have received from a correspondent in South Africa some details of the long-dreaded appearance of the Phylloxera in the vineyards of the Cape Colony. As long ago as 1880 the importation of living plants in any form or shape was forbidden by the Cape Government. This measure was so strictly enforced that consignments of young beech-trees from England and of tree-ferns from New Zealand were not allowed to be landed.

In 1884 the prohibition was for a short time relaxed. But it was speedily revived, under a penalty of 500*l.* or two years' imprisonment with or without hard labour in the case of any one infringing it.

The insect has now, notwithstanding, actually appeared in a few vineyards near Cape Town, and in two others about twenty-four miles off.

Fortunately the Cape Government has competent scientific advice at hand. Mr. Roland Trimen, F.R.S., the Director of the South African Museum, and a well-known entomologist, attended the Phylloxera Congress at Bordeaux in 1881 as the representative of the Cape Colony. A Commission to examine and report on the outbreak has been appointed, consisting of Mr. Trimen, of M. Péringuey his assistant, and of Prof. Macowan, F.L.S., Director of the Botanic Garden. M. Péringuey is a Bordeaux man and a good entomologist; he first drew Mr. Trimen's attention to some suspicious-looking mites on a slide which had been taken from a Cape vineyard by the doctor of a French ship, about Christmas.

Two or three of the vineyards are simply swarming with Phylloxera. But in others it appears to have only recent centres. Unfortunately sulpho-carbonates and carbon bisulphide are little more than names in the colony, and it has been necessary to telegraph for a supply. Pending the arrival of the insecticide, the vines are being uprooted and burnt. The result so far is encouraging, and the small range of the insect leads to the hope that it may be well kept under if not stamped out.

OSCAR SCHMIDT

EDWARD OSCAR SCHMIDT was born at Torgau on February 21, 1823. When he had finished his preliminary education he was sent to Berlin, where he had the advantage of studying natural history, to which his mind early had a bent, under the superintendence of Johannes Müller and Ehrenberg. Schmidt, however, proceeded to Jena to take his degree in 1849, and he held the post of Professor of Natural History in the University until 1855. His "Manual of Comparative Anatomy," which went through several editions, was first published in 1849. Appointed Professor of Zoology in

the University of Cracow in 1855, he was obliged, two years afterwards, to quit the country, owing to some unfortunate political complications, and he took refuge in Gratz. He was appointed Professor of Zoology and Comparative Anatomy in the University, and in time was made its Rector. During many of his vacation tours he visited the Ionian Islands and other places on the shores of the Adriatic, and, diligently working out the fauna of this almost tideless sea, he became more and more interested in the natural history of the Sponges, with the result that in 1862 he published his well-known and important work, "Die Spongien des Adriatischen Meeres," to which two supplements were issued in 1864 and 1866, followed in 1868 by a third supplement, which formed part of a new work on "Die Spongien der Küste von Algier." It will be conceded that this work of Schmidt's marked an epoch in the history of this interesting sub-kingdom. The enormous progress made in our knowledge of the natural history of the Sponges during the twenty-four years that have elapsed since Schmidt put forward his classification, and the immensely improved methods of research, may be said to have revolutionised the subject; but Schmidt's work will always be of value, and the merit of having grasped the leading features of the classification of the Sponges will generally be awarded to him. That he for the most part failed to perceive the proper specific and generic characters of the forms he describes and figures is not to be much wondered at. In 1870, leaving the Sponge fauna of the Mediterranean, he published his "Grundzuge einer Spongien Fauna des Atlantischen Gebietes," which was followed in 1874 by an account of the Sponges collected by the German Expedition to the North Sea; and his latest contribution to this subject was his work on "Die Spongien des Meerbusen von Mexico, 1879-1880." In 1872 he was appointed Professor of Zoology to the University of Strasburg, returning thus once more to his fatherland.

Though his works on "The Natural Sciences and the Philosophy of the Unconscious" and on "The Descendance Theory of Man and Darwinism" passed through several editions, and were translated into French, they need not be more particularly referred to here. As already noticed in these volumes, Prof. Schmidt died at Strasburg on January 17 last.

THE STORY OF BIELA'S COMET¹

I ASK you to listen to-night to the story of Biela's comet. I will weave into the story enough of astronomy to justify its place in this course as a lecture.

This story has none of the interest which human passions give to stories of human life, and yet if it shall not be to you as interesting as a novel, it will be because I shall spoil the story in telling it to you. It is a true story. In other words, I mean to separate sharply what we know from what we guess.

One hundred and two years ago last night (March 8, 1772) a Frenchman named Montaigne, in the provincial city of Limoges, found a comet. He did what little he could with his small telescope to mark its place in the heavens, but it was not much that he could do. The comet was a faint one, not to be seen by the naked eye, and had a short tail, only one-eighth as long as across the disk of the moon. He did not dream that that little foggy speck of light was to be one day one of the most interesting comets in the solar system; in fact, that he himself was to be known to history only for having first seen it. This little comet is the hero of my story—a hero from humble life. Montaigne wrote to Paris of his discovery, and they saw it three or four times before it disappeared.

¹ A Lecture delivered by Prof. H. A. Newton, on March 9, 1874, at the Sheffield Scientific School of Yale College, U.S. The renewed interest in Biela's comet created by the great shower of meteors on November 27 last justifies giving space for this lecture. From the *American Journal of Science*.