

meter, and are filled with a yellowish fluid, and a fine purplish granular matter, which in mass gives them a dark purple colour, and which, in the aggregate of the cells, gives the glands a very deep purple or almost black colour. When the cells are compressed, or the contents pressed out, the granules exhibit lively molecular movement.

In the centre of the mass of granular matter of the cell, and only seen upon compressing the latter, is a round, translucent nucleus, measuring the 1-5000th inch in diameter, and containing a minute refractive nucleolus.

The secreting cells vary in colour in different insects, and in the aggregate give the colour to the glandular bodies. The reservoir also is lined with cells. In *Upis Pennsylvanica* they are brownish, or nearly colourless, measure the 1-750th inch in diameter, contain some finely granular brownish matter, and a large round or oval translucent, faintly granular nucleus, measuring 1-1250th inch, with a large, round or oval nucleolus 1-2727th inch in diameter.

The secretion of the glands of *Julus marginatus*, contained within the interior of the body, is deep yellow in colour, and contains a few of the purplish granules of the cells. It resembles oil in consistence, but is soluble in water and alcohol. It is neither acid nor alkaline; evaporates at a temperature of 250° F., without residue; is acrid to the tongue, Schneiderian membrane, and conjunctiva; smells like hydriodic acid, and stains the cuticle brown. The last two properties led me to suspect the existence of iodine, but the usual reagents presented none. It probably belongs to a class of peculiar organic compounds, found in the odoriferous principles of animals, not yet investigated.

Exteriorly the reservoirs of the odoriferous glands of insects are furnished with transverse muscular bands of a brownish colour, about 1-1578th inch in breadth, and separated by wide intervals.

In *Julus* the body of the glands possesses no distinct muscular bands, but the neck is provided with them.—*Proceedings of the Academy of Natural Sciences of Philadelphia*, vol. iv. p. 234.

#### JOURNEY TO EXPLORE THE NATURAL HISTORY OF SOUTH AMERICA.

*To the Editors of the Annals of Natural History.*

GENTLEMEN,

24 Bloomsbury Street, Jan. 19, 1850.

In the January Number of your valuable Magazine for 1849, you were good enough to insert extracts from a letter I had received from Messrs. Wallace and Bates, two gentlemen who are investigating the *Natural History* of the Amazon River and its tributaries in South America, and who consign their collections to me for sale. I now send you extracts from a letter just received from Mr. Wallace, dated Sautarem, Sept. 12, 1849, which, if you think sufficiently interesting, you may perhaps feel inclined to insert:—

“I have got thus far up the river, and take the opportunity of sending you a few lines. To come here, though such a short distance, took me a month. I am now waiting here to get to Montalegre, but the difficulties of getting men even for a few days are very great. Here

the country is very sandy and dry, with a scrubby, shrubby vegetation; there are however some patches of forest, and in these, Lepidoptera are rather abundant; there are several lovely *Erycinidæ* new to me, and many common insects, such as *Heliconia Melpomone* and *Agraulis Dido*, abundant, which we hardly ever saw at Parà: Coleoptera I am sorry to find as scarce as ever. I hope however to do better at Montalegre, as the hills there are near a thousand feet high, and must I should think produce some. I wish to know what is thought of Cuyaba in the province of Matto Grosso as a locality; it is at the head of the Tapajoz and Paraguay River; there is a communication from here, salt being taken up. I could also from Rio Nigro get up the Madeira to Matto Grosso city, or up some branches into Bolivia. Is Bolivia at all known? I see in the Museum Catalogue only five or six *Erycinidæ* from it, from Mr. Brydges' collections. I see there is a branch of the Andes in it the highest in America, and its capital cities appear higher ground than even Bogota or Quito. Either of the localities can be I think quite as easily reached as the Andes up the Amazon; at all events I should like to know if the ground is open and likely to be good, for some future time, if not just at present. I shall I think get up the Rio Nigro towards the sources of the Orinooko, but I am rather fearful that all N. Brazil is rather poor in Coleoptera.

"September 14th.—I believe I shall now start for Montalegre tomorrow, having a canoe lent me; I have however found so many new species of Lepidoptera, that I shall probably stay here a month on my return before going to Rio Nigro, unless indeed I find Montalegre so very good as to induce me to spend till December there. I do not think that you need send me anything till I write again. Pray write whenever you can, and give me all the information you may be able to obtain, both as to what things are wanted in any class or order and as to localities.

"The Tapajoz here is clear water with a sandy beach, and the bathing is luxurious; we bathe here in the middle of the day, when dripping with perspiration, and you can have no idea of the excessive luxury of it; the water is so warm that then is the healthiest time. Oranges are about fourpence a bushel here, and are far the best fruit; large pineapples twopence to fourpence, but we seldom eat them. The more I see of the country, *the more I want to*, and I can see *no end* of, the species of butterflies when the whole country is well explored. Remember me to all friends."

I am, Gentlemen, your obedient Servant,  
SAMUEL STEVENS.

#### ON THE GENUS GREGORINA.

M. L. Dufour has applied the name of *Gregorina* to some microscopic organisms which live as parasites in the intestinal canal of some insects, especially of larvæ. M. Koelliker found that these creatures were composed of a single cell, and are as simple as some of the lower genera of plants. Some objections urged against this monocellular nature, by Henle and Fantzius, have induced M. Koel-