

are to be congratulated on the continued successful results of their labours.

DR. OBST, the director of the Ethnographical Museum at Leipzig, after attending the Archæological Congress at Tiflis, intended to make an exploring tour in the Caucasus, Armenia, and Asia Minor, and then to return to Saxony *viâ* Constantinople and Athens.

A STRANGE phenomenon was recently observed at Emerson, near Lake Winnipeg. A dark cloud formed of myriads of winged black ants passed over the place from east to west. When it descended the ground over a large area was covered an inch deep with the insects.

MAUNA LOA (Hawaii) is again active, and the lava threatens the port of Hilo, situated on the east side of the island.

IN a letter which we have received from Mr. G. H. Kinahan he disavows the suggestion imputed to him (NATURE, vol. xxiv. p. 471) that Laurentian rocks occur in Co. Tyrone.

THE additions to the Zoological Society's Gardens during the past week include a Macaque Monkey (*Macacus cynomolgus* ♀), a Bonnet Monkey (*Macacus radiatus* ♀) from India, presented by Mr. G. E. Jarvis; a Vervet Monkey (*Cercopithecus lalandii* ♂) from South Africa, presented by Mrs. Brassey; two Leopards (*Felis pardus*) from Ceylon, presented by Lieut.-Col. J. S. Armitage, F.Z.S.; a Mesopotamian Fallow Deer (*Cervus mesopotamicus* ♀), two Beatrix Antelopes (*Oryx beatrix* ♀ ♀), two Arabian Gazelles (*Gazella arabica* ♂ ♀) from Muscat, presented by the Lord Lilford, F.Z.S.; a Naked-footed Owl (*Athene noctua*), European, presented by Mr. R. J. Marilton; a Common Kestrel (*Tinnunculus alaudarius*), a Common Hare (*Lepus europæus*), European, presented by Mr. W. K. Stanley; a Paradise Whydah Bird (*Vidua paradisæa*) from West Africa, presented by Mr. Bowyer Bower; two Bonnet Monkeys (*Macacus radiatus*) from India, a Bell's Cinixys (*Cinixys belliana*) from East Africa, deposited; an Osprey (*Pandion haliaetus*), European, purchased; a Hardwicke's Hemigale (*Hemigalea hardwickii*) from Borneo, received on approval.

OUR ASTRONOMICAL COLUMN

THE SATELLITE OF NEPTUNE.—We subjoin such a table as was suggested by Prof. Newcomb for indicating with little trouble the approximate position of the satellite of Neptune, at any time about the approaching opposition. The argument *u* has the same significance as in Newcomb's Tables:—

Argument <i>u</i> .	Angle of Position.	Distance.
0 ... 180 ...	73°3 ... 253'3 ...	11'4
10 ... 190 ...	65'7 ... 245'7 ...	13'1
20 ... 200 ...	59'7 ... 239'7 ...	14'6
30 ... 210 ...	54'8 ... 234'8 ...	15'8
40 ... 220 ...	50'4 ... 230'4 ...	16'6
50 ... 230 ...	46'3 ... 226'3 ...	16'9
60 ... 240 ...	42'3 ... 222'3 ...	16'9
70 ... 250 ...	38'2 ... 218'2 ...	16'4
80 ... 260 ...	33'8 ... 213'8 ...	15'5
90 ... 270 ...	28'6 ... 208'6 ...	14'3
100 ... 280 ...	22'2 ... 202'2 ...	12'7
110 ... 290 ...	14'0 ... 194'0 ...	11'0
120 ... 300 ...	2'7 ... 182'7 ...	9'2
130 ... 310 ...	346'4 ... 166'4 ...	7'7
140 ... 320 ...	324'2 ... 144'2 ...	6'8
150 ... 330 ...	299'4 ... 119'4 ...	7'0
160 ... 340 ...	278'6 ... 98'6 ...	8'0
170 ... 350 ...	263'7 ... 83'7 ...	9'6
180 ... 360 ...	253'3 ... 73'3 ...	11'4

Values of *u* at Greenwich noon

Oct. 28 ... 187°55	Nov. 27 ... 225'26	Dec. 27 ... 262'95
Nov. 7 ... 80'12	Dec. 7 ... 117'83	Jan. 6 ... 155'51
17 ... 332'69	17 ... 10'39	

Days.	Motion of <i>u</i> in	
	Hours.	Minutes.
1 61°26	1 2'55	
2 122°51	2 5'11	
3 183°77	3 7'66	
4 245°03	4 10'21	
5 306°28	5 12'76	
	6 15'31	
	12 30'63	

From which figures *u* may be interpolated for any hour required. When *u* is found in the second column of the table, the angle of position is to be taken from the second column.

COMET 1881 *f* (DENNING, OCTOBER 3)—The comet discovered by Mr. W. F. Denning of Bristol during the night of the 3rd inst. has been observed at Marseilles by M. Coggia, and at Lord Crawford's Observatory at Dunecht. Elements calculated by Dr. Copeland and Mr. Lohse upon Dunecht observations on October 9, 10, and 12, are as follows:—

Perihelion passage 1881, September 12°0943, Greenwich M.T.

Longitude of perihelion	22° 6' 9"	} M. Eq. 1881°0
Ascending node	72° 47' 45"	
Inclination	7° 45' 12"	
Log. perihelion distance	9'859822	
Motion—direct.		

Hence it is found that this comet, like that discovered by Mr. Barnard on September 19, is receding both from the sun and the earth. As remarked in Lord Crawford's Circular, No. 33, the elements bear some resemblance to those of the fourth comet of 1819, detected by Blanpain at Marseilles, which was certainly moving in an elliptical orbit of very limited dimensions. This circumstance alone attaches a particular interest to Mr. Denning's comet, and makes it of importance that it should be accurately observed for position as long as practicable.

CERASKI'S VARIABLE—U CEPHEI.—The following Greenwich times of minima depend upon Mr. Knott's observation on the 2nd inst. with the period 2^d.49280:—

	h. m.		h. m.		h. m.
Oct. 22 ...	10 24	Nov. 11 ...	9 1	Dec. 1 ...	7 39
27 ...	10 4	16 ...	8 41	6 ...	7 18
Nov. 1 ...	9 43	21 ...	8 20	11 ...	6 57
6 ...	9 22	26 ...	7 59	16 ...	6 37

BIOLOGICAL NOTES

THE HYPOPHYSIS IN ASCIDIANS.—In a second paper to the Belgian Academy on this subject (*Bull.* No. 6) M. Julin describes the quite special arrangement of the "hypophysary gland" in *Phallusia mamillata*. Besides the principal excretory duct existing in all Ascidians, and here considerably reduced, there are a large number of orifices by which the glandular tubes pour their product of secretion into the peribranchial cavity, of which the cloaca forms the median part, which receives all the products and residues of the organism, to be cast out. Hence the products of the hypophysis in this species are probably also excrementitious, and the gland is physiologically the kidney of the animal. If it be so with *P. mamillata* it is likely to be the same with the other Tunicata; and though, in most, the hypophysis opens into the mouth, one cannot infer that the product is to be utilised in the alimentary canal. From the morphological point of view it is noteworthy that in glands properly so-called, arising from an epidermic or epithelial invagination, the product of secretion is generally eliminated by a single orifice, and that the only exceptions occur in the category of urinary apparatus (Cestodes, Trematodes, &c.).

THE CORALS OF SINGAPORE.—We learn from a paper (*Proc.* of Berne Nat. History Society) by Prof. Studer, on the Corals of Singapore, that there are no less than 122 species known from this locality. Of these fifty-one species are special to the locality, whilst the others inhabit the seas of New Guinea, of the New Britannic Archipelago, of the Solomon Islands, and reach as far as Fiji, some few extending as far as Tahiti. At the same time the Singapore corals yield very few species in common with the Red Sea, the Seychelles, and Mauritius, and these are Fungidae, but no Madreporacæ. Thus it may be established that the coral fauna of the Indian Ocean must be divided into two distinct regions—a western and an eastern, the latter extending far to the east into the Pacific. These two