

MR. F. MOORE, having completed the "Lepidoptera of Ceylon," has now in preparation a much more extensive work comprising the Lepidopterous insects of the entire Indian region. It will be issued in monthly parts, to subscribers only, by the publishers of his previous work, Messrs. L. Reeve and Co.

MR. H. T. OMMANEY, C.S., of Karwar, has sent to the Bombay Natural History Society a full-grown live specimen of the Hamadryad, or King Cobra (*Ophiophagus elaps*). The reptile, which measures about 12 feet in length, is jet black, with faint cream-coloured bars across its back. The throat is of a golden-yellow colour.

A NEW "Catalogue of Mathematical Books," including many of the works of the old mathematicians, has been issued by Messrs. Macmillan and Bowes, Cambridge.

DR. OVERBECK, who owns part of the collections that originally belonged to Alexander von Humboldt, has sent a report about them to the Saxe-Thuringian Naturalists' Society at Halle. He enumerates 290 objects. Dr. Overbeck intends to present Humboldt's collection of minerals to the Mineralogical Museum of Halle University.

THE additions to the Zoological Society's Gardens during the past week include three American Flying Squirrels (*Sciuropterus volucella*) from Florida, presented by Mr. Henry D. Harrison; two Great Eagle Owls (*Bubo maximus*), European, deposited; two Common Wolves (*Canis lupus* ♂ ♀), European, received in exchange.

OUR ASTRONOMICAL COLUMN.

THE NATAL OBSERVATORY.—Mr. Neison, Superintendent of this Observatory, has issued his Report for 1886, and it appears from it that the astronomical work during that year was almost wholly confined to routine observations with the transit instrument, though the meteorological observations were carried on as usual. This partial suspension of activity was due to the fact that only one assistant is now on the staff, and that, through the severe illness of the Superintendent during the first part of the year and his enforced absence in England during the latter part, the assistant, Mr. Grant, was left practically single-handed. The present year will probably show better results, as Mr. Neison returned to his post before the close of 1886, and several needed instrumental improvements and repairs had been successfully carried out. Mr. Neison had commenced an important work connecting the fundamental declinations of the star catalogues of the northern and southern observatories, by means of observations of the differences in zenith distance between 32 selected stars which cross the meridians of the great northern observatories near their zeniths on the one hand, and a set of corresponding southern circumpolar stars on the other.

OLBERS' COMET, 1887.—The following ephemeris for Berlin midnight for this object is in continuation of that given in NATURE of December 1, p. 37:—

1887.	R.A.	Decl.	Log r.	Log Δ.	Bright- ness.
	h. m. s.	°			
Dec. 17...	16 7 41	2 47' 2 N.	0'1990	0'3593	0'63
19...	16 12 21	2 18' 4			
21...	16 16 56	1 50' 5	0'2090	0'3645	0'59
23...	16 21 25	1 23' 5			
25...	16 25 48	0 57' 3	0'2190	0'3695	0'55
27...	16 30 6	0 31' 9			
29...	16 34 19	0 7' 4 N.	0'2290	0'3741	0'51
31...	16 38 27	0 16' 2 S.			
1888.					
Jan. 2...	16 42 30	0 39' 0	0'2389	0'3783	0'48
4...	16 46 27	1 1' 2			
6...	16 50 20	1 22' 7 S.	0'2486	0'3821	0'45

PROBABLE NEW CLASS OF VARIABLE STARS.—The Rev. T. E. Espin considers that a number of our variable stars possess characteristics which justify their being formed into a separate class. They are irregular both in period and variation, the latter being usually about 1½ mag., and they show spectra

of Secchi's fourth type, i.e. like No. 152 Schjellerup. Their changes in brightness are rapid and uncertain. Mr. Espin names 19 Piscium, Birmingham 277, 521, 535, 541, and Espin 116, 154, as belonging to this new class, which perhaps embraces also Birmingham 85, 120, 121, 240, 290, 418, 464, 483, and 502.

ASTRONOMICAL PHENOMENA FOR THE WEEK 1887 DECEMBER 18-24.

(FOR the reckoning of time the civil day, commencing at Greenwich mean midnight, counting the hours on to 24, is here employed.)

At Greenwich on December 18

Sun rises, 8h. 4m.; souths, 11h. 56m. 45' 5s.; sets, 15h. 50m.; right asc. on meridian, 17h. 43' 9m.; decl. 23° 24' S. Sidereal Time at Sunset, 21h. 38m. Moon (at First Quarter on December 22, 7h.) rises, 10h. 48m.; souths, 15h. 23m.; sets, 20h. 4m.; right asc. on meridian, 21h. 10' 7m.; decl. 16° 43' S.

Planet.	Rises.		Souths.		Sets.		Right asc. and declination on meridian.	
	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	
Mercury..	6 35	10 44	14 53	16 31	17 11	21 4	4 S.	
Venus ...	3 48	8 48	13 48	16 34	17 16	12 16	16 S.	
Mars ...	0 38	6 39	12 40	12 25	12 56	0 37	3 S.	
Jupiter ...	5 17	9 44	14 11	15 30	16 18	18 9	9 S.	
Saturn ...	18 59*	2 47	10 35	8 32	8 19	16 16	N.	
Uranus...	1 43	7 16	12 49	13 25	13 58	5 58	S.	
Neptune.	14 16	21 56	5 36*	3 44	3 18	1 18	N.	

* Indicates that the rising is that of the preceding evening and the setting that of the following morning.

Occultation of Star by the Moon (visible at Greenwich).

Dec.	Star.	Mag.	Disap.	Reap.	Corresponding angles from vertex to right for inverted image.
			h. m.	h. m.	°
18 ...	♄ Capricorni	4½	17 58	18 59	103 35°

December 22.—Sun at greatest declination south; shortest day in northern latitudes.

Variable Stars.

Star.	R.A.		Decl.		h. m.
	h. m.	h. m.	h. m.	h. m.	
U Cephei ...	0 52	3 81	16 N.	Dec. 21,	23 44 m
λ Tauri... ..	3 54	4 12	10 N.	"	18, 22 54 m
ζ Geminorum ...	6 57	4 20	44 N.	"	22, 21 46 m
				"	19, 22 0 m
				"	24, 22 0 M
R Canis Majoris...	7 14	3 16	11 S.	"	19, 2 19 m
				"	20, 5 35 m
S Cancri	8 37	5 19	26 N.	"	21, 23 57 m
δ Libræ	14 54	9 8	4 S.	"	18, 22 2 m
U Coronæ	15 13	6 32	4 N.	"	21, 18 29 m
R Serpentis	15 45	5 15	29 N.	"	21, M
β Lyræ... ..	18 45	9 33	14 N.	"	18, 2 0 m
Y Cygni	20 45	6 34	10 N.	"	20, 21 51 m
				"	23, 21 45 m
δ Cephei	22 25	0 57	50 N.	"	23, 2 0 M

M signifies maximum; m minimum.

Meteor-Shower.

	R.A.	Decl.
	h. m.	h. m.
Near λ Ursæ Majoris...	130	49 N.

GEOGRAPHICAL NOTES.

THE new number of *Petermann's Mitteilungen* contains a letter from Dr. Hans Meyer, written from Taveta, at the foot of Kilimanjaro, giving some details of his ascent of that mountain, and the results of his observations; it is accompanied by a sketch-map. Dr. Meyer, with one white companion and twenty-two natives, started from Mareale's village, at the south foot of the mountain, in the beginning of July, and proceeded to mount the southern slopes. At 1800 metres the last bananas were passed, and at 2000 metres the saturated forest belt was entered, which on the second day was left behind. Immediately above this stretches a broad belt of grass,