

branches of science. The memoirs are "not for the specialist, but interesting and popular expositions of what the specialist knows to be sound and opportune." A number of the memoirs are reprints of addresses and articles which have appeared in NATURE, some are original articles, and others are translations or reprints from contributions to various scientific publications. Almost every phase of scientific activity seems to be included among the papers, and many subjects are illustrated by fine half-tone pictures. The Smithsonian Institution does good service to science by the publication of these sound and instructive surveys of the state of natural knowledge.

THE additions to the Zoological Society's Gardens during the past week include a Smooth-headed Capuchin (*Cebus monachus*) from South-east Brazil, presented by Mr. Herbert Gibson; a Palm Squirrel (*Sciurus palmarum*) from India, presented by Miss Aggie O'Connor; a Kinkajou (*Cercoptes caudivolvulus*, ♀) from South America, presented by Mr. J. J. Quelch; a Mexican Guan (*Ortalis vetula*) from Cartagena, Colombia, presented by Captain W. H. Milner; a Martinique Gallinule (*Zonornis martinicus*), captured at sea, presented by Mr. H. O. Milner; a Leith's Tortoise (*Testudo leithi*) from Egypt, presented by Mr. S. S. Flower; a Black-tailed Wallaby (*Macropus ualabatus*, ♀) from New South Wales, three Rabbit-eared Bandicoots (*Peragale lagotis*, 3 ♂), two Spotted Bower Birds (*Chlamydodera maculata*) from Australia, two Westermann's Cassowaries (*Casuarus westermanni*) from New Guinea, a White-throated Monitor (*Varanus albigularis*) from South Africa, two Starred Tortoises (*Testudo elegans*) from India, four Elephantine Tortoises (*Testudo elephantina*) from the Aldabra Islands, deposited.

OUR ASTRONOMICAL COLUMN.

ASTRONOMICAL OCCURRENCES IN JUNE:—

- June 1. 14h. 53m. to 15h. 40m. Occultation of the star 19 Piscium (mag. 5.2) by the moon.
- 7. 16h. 43m. to 17h. 53m. Partial eclipse of the sun visible at Greenwich. The greatest phase occurs at 17h. 17m., at which time 0.188 (nearly one-fifth) of the sun's disc will be obscured. At places N.W. of Greenwich the eclipse will be of somewhat greater magnitude.
- 11. 2h. Saturn in opposition to the sun.
- 15. Illuminated portion of the disc of Venus 0.904, of Mars 0.913.
- 20. 11h. 30m. Minimum of the variable star Algol (β Persei).
- 22. 7h. Saturn in conjunction with the moon.
- 23. 8h. 19m. Minimum of the variable star Algol (β Persei).
- 23. 10h. 34m. to 11h. 41m. Occultation of B.A.C. 6343 (mag. 5.8) by the moon.
- 24. 13h. 17m. to 14h. 12m. Occultation of f Sagittarii (mag. 5.1) by the moon.
- 25. 10h. 45m. to 11h. 48m. Occultation of B.A.C. 7145 (mag. 6.0) by the moon.
- 27. 12h. 59m. to 14h. 2m. Occultation of κ Aquarii (mag. 5.5) by the moon.
- 28. 11h. 22m. to 12h. 10m. Occultation of κ Piscium (mag. 5) by the moon.

COMET 1899 a (SWIFT).—

Ephemeris for 12h. Berlin Mean Time.

1899.	R.A.	Decl.	Br.
	h. m. s.		
June 1	17 58 35	+ 50 13.1	
2	17 36 8	55 13.8	1.34
3	17 15 28	54 1.7	
4	16 56 46	52 39.2	1.18
5	16 39 54	51 9.5	
6	16 24 46	49 34.6	1.03
7	16 11 13	47 57.1	
8	15 59 12	+ 46 18.1	0.88

NO. 1544, VOL. 60]

The comet is now passing with a greatly accelerated motion in a south-westerly direction. During the week it will traverse the constellations Draco and Hercules; on the 1st it passes close to ξ Draconis, while on the 8th it will be a little more than 1° north-west of φ Hercules. In *Astr. Nach.*, No. 3567, Prof. A. A. Nijland, of Utrecht, says that, viewed with a finder of 74 mm. aperture on May 5, the comet appeared about 5.5 mag., having a tail about 1°.5 in length.

TEMPEL'S COMET (1873 II.).—

Ephemeris for 12h. Paris Mean Time.

1899.	R.A.	Decl.	Br.
	h. m. s.		
June 1	19 34 17.4	- 3 52 50	1.121
3	37 19.0	3 58 10	
5	40 18.6	4 5 17	1.271
7	43 16.1	4 14 21	
9	46 11.7	4 25 27	1.439
11	49 5.4	4 38 45	
13	51 57.2	4 54 22	1.625
15	19 54 47.2	- 5 12 25	

As the comet approaches perihelion (June 18) it is rapidly becoming brighter, and should now be visible with small instruments. It reached its highest northerly declination on May 26, and is now travelling to the south-east through Aquila into the head of Capricornus.

NEW VARIABLE OF ALGOL TYPE.—M. Ceraski, of the Moscow Observatory, writes in *Astr. Nach.* (Bd. 149, No. 3567), announcing the discovery of a new variable of the Algol type in the constellation Cygnus. The star was detected by the varying intensity of its image on photographs taken during May and July 1898. Its position is

B.D. + 45° 3062. 1855. R.A. = 20h. 2m. 24.5s.
Decl. = + 45° 52.9.

Its magnitude is usually about 8.6, but on May 8 this year it was observed to be at minimum about 13.4h., Moscow mean time, its light then being nearly two magnitudes fainter than the normal.

VARIABLE RADIAL VELOCITY OF ζ GEMINORUM.—Prof. W. W. Campbell has called attention to this star in a paper communicated to the *Astrophysical Journal* (vol. ix, p. 86, 1899), where he gives the results of measures on three photographs. In *Astr. Nach.* (Bd. 149, No. 3565), M. A. Belopolsky gives the results of an extensive series of measures he has been able to obtain with the 30-inch refractor and two-prism spectrograph of the Pulkowa Observatory. The individual observations are given, and also a summation in the form of a table showing the radial velocities at stated intervals from minimum. This latter is as follows:—

Interval from minimum	Velocity	Interval from minimum	Velocity
d. h.		d. h.	
0 2	+ 4.76 g.M.	5 1	- 2.70 g.M.
0 12	+ 2.86	6 19	+ 1.96
1 12	+ 0.71	8 1	+ 3.00
2 1	+ 0.68	8 5	+ 3.02
3 1	+ 0.04	9 6	+ 5.06
3 12	+ 0.50	9 15	+ 4.41
4 1	- 0.40	10 2	+ 4.11
4 13	+ 0.34		

Prof. Campbell's maximum and minimum values were 20 kil. and 6 kil. respectively.

THE RESULTS OF THE "VALDIVIA" EXPEDITION.

DR. SUPAN gives the following summary (based on the official report in the *Reichs-Anzeiger* of March 25) of the chief results of the German expedition in the *Valdivia* to Antarctic waters, in the April number of *Petermann's Mitteilungen*.

(1) Rediscovery and determination of position of Bouvet Island, first discovered by Bouvet in 1739, and sighted since then only by Lindsay (1808) and Norris (1825). The island, which lies in lat. 54° 26' S., long. 3° 24' E., and is 9½ kilo-