

hippocrepia, and the Decapod Crustacean *Athanas nilescens*. The floating fauna has presented hardly any appreciable change: numbers of young *Geryonia appendiculata*, some Margelid medusæ and swarms of *Obelia*, have formed the chief Cœlenterate element. *Noctiluca* is generally present in fair quantity. The Ascidian *Ciona intestinalis* is now breeding.

THE additions to the Zoological Society's Gardens during the past week include a Rhesus Monkey (*Macacus rhesus*) from India, presented by Mr. Duncan Mackintosh; two Lions (*Felis leo*, ♀ & jew.) from Somaliland, presented by The Lord Delamere; four Long-fronted Gerbilles (*Gerbillus longifrons*) from Tunis, two Long-tailed Field Mice (*Mus sylvaticus*) from France, presented by Mons. Albert de Lautreppe; a Ring-tailed Coati (*Nasua rufa*) from South America, presented by Mr. H. Rich; two White Storks (*Ciconia alba*) European, presented by Mr. Walter Winans, F.Z.S.; an Adelaide Parakeet (*Platyercus adelaidæ*) from Australia, presented by Mrs. Waterhouse; two Common Sheldrakes (*Tadorna vulpanser*) from Scotland, presented by Mr. Francis Alexander; three Dwarf Chameleons (*Chamaleon pumilus*) from South Africa, presented by Mr. Henry Beamish; an Alligator (*Alligator mississippiensis*) from Florida, presented by Mr. H. Venn; a Serval (*Felis serval*), a Cape Crowned Crane (*Balearica chrysopelargus*), a Secretary Vulture (*Serpentarius reptilivorus*), a Black-winged Kite (*Elanus ceruleus*) from South Africa, a Grey Squirrel (*Sciurus cinereus*) from North America, deposited; three Viscachas (*Lagostomus trichodactylus*), a Hairy Armadillo (*Dasyfus villosus*), two Ypecaha Rails (*Aramides ypecaha*), a Great Grebe (*Aechmophorus major*) from South America, a Prêtres Amazon (*Chrysotis pretrii*) from Brazil, purchased; four Indian Wild Swine (*Sus cristatus*) born in the Gardens.

OUR ASTRONOMICAL COLUMN.

ON THE PARALLAX OF THE PLANETARY NEBULA B.D. + 41°404.—During the summer of 1892 Dr. J. Wilsing began a series of photographs of Webb's planetary nebular B.D. + 41°4004, using the new photographic refractor of the Potsdam Observatory, with the intention of determining the parallax. In the current number of *Astronomische Nachrichten* (No. 3190) he gives an account of the measurements made. The undertaking seems to have been especially difficult on account of the numerous errors that were liable to arise, and also to the lack of sharpness of the image of the nebula on the photographic plate. From June 1892 to June 1893 he obtained thirty-four plates with two exposures on each of eight minutes duration, and they were all measured with the Repsold's measuring apparatus, a description of which instrument is given in vol. v. of the Publications of the Potsdam Astrophysical Observatory. Six stars were used for comparison, and the distance of the nebula was measured from two of these stars, the others being used for finding the value in seconds of arc of the measured distances, &c. The distances measured show a distinct decrease, as will be gathered from the following table, when N. 3 and N. 6 denotes the distances from the two companion stars respectively:—

1892-93.	N. 3.	N. 6.	Wt.
June 25 ...	7 24'53 ...	13 9'72 ...	$\frac{2}{3}$
July 13 ...	24'40 ...	9'77 ...	I
Aug. 8 ...	24'53 ...	9'56 ...	$\frac{1}{3}$
Sept. 23 ...	24'42 ...	9'71 ...	$\frac{1}{3}$
Oct. 18 ...	24'43 ...	9'61 ...	I
Nov. 10 ...	24'23 ...	9'60 ...	$\frac{1}{3}$
Jan. 2 ...	24'32 ...	9'43 ...	$\frac{1}{3}$
June 5 ...	7 24'56 ...	13 9'61 ...	$\frac{1}{3}$

Assuming the nebula distances from these stars as 7' 24" 40 + 13' 9" 60 for 1892.0. the position, corrections, relative yearly proper motions, and the relative parallaxes, when taken

into account, gave the following numbers for the equation, observed—calculated

O - C.			
N. 3.	N. 6.	N. 3.	N. 6.
+ 0'05 ...	+ 0'05	+ 0'06 ...	- 0'05
- 0'07 ...	+ 0'16	- 0'13 ...	+ 0'01
+ 0'08 ...	- 0'11	- 0'05 ...	- 0'08
+ 0'02 ...	+ 0'03	0'00 ...	+ 0'05

The negative relative parallax thus obtained shows, as Dr. Wilsing in his concluding remarks says, that the distance of Webb's nebula from the sun cannot be assumed in any way to be less than the distances of both the eleventh-magnitude comparison stars.

SOLAR AND LUNAR EPHEMERIS FOR TURIN.—In vol. xxviii. of the *R. Accademia delle Scienze di Torino*, Dr. Alberto Manaira contributes the ephemerides of the sun and moon which he has calculated out for the horizon of Torino for the year 1894. For each day of the month throughout the year he gives the time of rising, meridian passage, and setting of the sun and moon. Brief reference is also made to the eclipses visible in that year, giving the time (mean time Rome) of the chief contacts.

GEOGRAPHICAL NOTES.

THE *Mouvement Géographique* publishes a sketch map of Dr. Baumann's exploration to the north-east of Lake Tanganyika, in the country of Urundi. He has traced out the head waters of the Kagera, which take their rise close to Tanganyika and flow down the long slope to the Victoria Nyanza, being thus the ultimate source of the Nile, if it is possible to apply that name to any of the streams which feed Lake Victoria. The mountains between the basin of the Kagera and that of the Rusiji are called by the Warundi *Misozi a Mwedi*, or Mountain of the Moon. Some of the summits were apparently about 10,000 feet above the sea. The Rusiji River, which flows into Lake Tanganyika at its northern end, is represented provisionally as flowing from the reported Lake Oso, which receives the drainage from the southern slopes of the Mfumbiro mountains, the north slope of which drains to Lake Albert Edward. If this topography turns out to be correct, the Mfumbiro range forms the only barrier across the great meridional furrow which runs from the Mediterranean to the Zambesi, and includes Lakes Albert, Albert Edward, the possible Oso, Tanganyika, and Nyasa.

MR. H. F. B. LYNCH, with his brother and a Swiss guide, succeeded, after seven and a half hours' climbing, in making an ascent of Mount Ararat, on September 19, and promises some interesting information regarding his observations on his return to this country. He took some photographs of the mountain scenery.

PRINCE KRAPOTKIN publishes his address on the Teaching of Physiography, given at the Teachers' Guild Conference at Oxford, in the October number of the *Geographical Journal*. He deprecates the exclusive use of the *Heimatskunde* in introducing children to the study of the earth, and approves rather of teaching geography by considering the earth as a whole, insisting, however, on the importance of personal work by the scholars in their own neighbourhood to extend and give reality to theoretical teaching.

AN interesting history of the mapping of the state of Missouri, by Mr. Arthur Winslow, assisted by Mr. C. F. Marbut, has been published in the Transactions of the Academy of Sciences of Missouri. Starting with the dictum that the civilisation of a people is proportional to the accuracy with which their country is mapped, Mr. Winslow traces the gradual improvement of the maps of Missouri in a readable way. He gives rough sketches of the more interesting early maps. Franquelin's map of 1688 is the first on which the name "Missouris" appears, but the river to which the name was applied is very imperfectly drawn. In Sinex's map of 1710 the position of the Mississippi is shown nearly sixty miles too far west, and the mouth of the Missouri twenty-five miles too far north. In du Pratz' map of 1763 the error in both directions is doubled. Lieutenant Ross, of the British Army, in 1765 made a survey of the Mississippi, accurate as to latitudes, but wrong in longi-