since its separation, on the north, from the rest of the Philippines, so that these genera have not flowed over into Mindoro and Luzon. In addition to these apparently late arrivals from Borneo, the sub-province possesses a large number of peculiarly Philippine birds and mammals, which show it to be an integral part of the province.

The rest of the Philippines would seem to have received their Malayan fauna at another time, and by the other way of Sulu and Mindanao. They possess the mammalian genera, *Galeopithecus*, *Tarsius*, and *Cervus*, which are apparently wanting in the western sub-province, and the genera *Macacus*, *Sus*, *Viverra*, *Paradoxurus*, and *Sciurus* in common with it. Of birds, the genera *Loriculus*, *Cyclopsitta*, *Buceros*, and *Penelopides* are examples of forms which are more or less generally distributed over the archipelago outside of the western sub-province.

The grounds for dividing the Philippines east of Paragua into sub-provinces are, to a great extent, based upon species, and especially upon the existence in each of representative forms of the genera *Loriculus*, *Buceros*, *Penelopides*, *Pitta*, *Chrysocolaptes*, *Dicaeum*, *Cinnyris*, &c. The hornbills form perhaps the most striking example of this distribution of representative species. Of the eleven species of hornbills obtained in the islands, the western sub-province has one, the southern three, the central two, the eastern two, Mindoro one, and the northern sub-province two, and we have found no case of a single species occupying more than one sub-province, or of more than one species of a genus in a single sub-province. The genus *Chrysocolaptes* of woodpeckers is also noticeable, each sub-province possessing its own species, with the exception of Mindoro, which lacks the genus altogether. The genus *Loriculus* of the parrots is of the same character. Of other animals than birds, the genus *Sciurus* of mammals, and *Draco*, the flying lizards, seem to have representative species in each sub-province, and the land-mollusks are probably distributed in the same way.

The above examples are a few that come to mind before a careful study of our collections has been made, and they do not by any means show all the reasons for the conclusions arrived at. These are the results rather of the general observations of five careful men who have been collecting and studying in the Philippines during the last year. During this time we have visited and collected in fifteen islands of the group, and these the largest and most important. I am satisfied that the study of our collections with the aid of the libraries and collections at home, will only strengthen the conclusions of this paper. It may be necessary to make the so-called western sub-province of more importance in the arrangement, but the non-existence in nature of exactly equivalent divisions of any kind is well recognized.

It is hoped that our work may aid in untangling some of those puzzles in which students of Philippine zoology have found themselves involved, and that it will also add considerably to the sum of knowledge concerning this, as yet, imperfectly known corner of the earth.

Manilla, July 2, 1888.

J. B. STEERE.

BAROMETRIC OSCILLATIONS.

THE following account of what appears to have been the passing of H.M. surveying-ship *Egeria* through the embryo of a cyclonic disturbance, has been received from Captain Aldrich, of that ship.

Admiralty, August 1.

W. J. L. WHARTON.

H.M.S. "*Egeria*," at sea, June 6, 1888.

I send the following extract from my journal, which may possibly be of interest to meteorologists:—

"May 31.— . . . There has been a swell from the southwest during the day. The lower clouds come from be

eastward, while the upper ones are from the westward. This appears to be a common occurrence in this locality.

"♀ June 1.—Weather cloudy all night, and wind-force 2'3, gradually veering, till at 3.30 a.m. it was to the northward of east. Barometer rising slowly. At 6 a.m. the wind shifted to the north-east in a rain-squall; nimbus, and a generally dark appearance in the sky. At 7 a.m. the officer of the watch sent down to tell me the barometer had fallen 0'12 of an inch in the previous hour. I was about to commence dressing at the time, but, hurrying on my things, I looked at the aneroid in my fore-cabin, and found the report correct. I immediately reset the aneroid and went on deck, and although there were no signs of any forthcoming disturbance, the light sails and mainsail were taken in. At 7.20 I had the barometer again read, when it was reported to have risen nearly $\frac{1}{10}$ inch in the twenty minutes. I went down immediately, and found by the aneroid this jump had taken place. During this time there was no change in the weather, though the wind drew to the north-north-east."

Now there is no doubt whatever that the barometer went up 9/100 in twenty minutes. Of course, it cannot be known to an hour when it previously dropped '12, as the instrument was not read between 6 a.m. and 7 a.m., and the drop may possibly have been greater even, and also may have taken place as suddenly as it rose afterwards. There is no doubt that some extraordinary disturbance of the atmosphere took place, though beyond the foregoing observations we neither saw nor experienced anything of it. The following are the actual readings of the mercurial barometer:—

a.m.	Inches.	Position.
6	30'170	Lat. 24'04 S.
7	30'050	Long. 179'04 W.
7.20	30'144	
7.30	30'154	
7.45	30'186	
8	30'186	
9	30'200	

PELHAM ALDRICH.

NOTES.

THE following is the list of names recommended by the President and Council of the Royal Society for election into the Council for the year 1889, at the forthcoming anniversary meeting on the 30th inst.:—President: Prof. George Gabriel Stokes. Treasurer: Dr. John Evans. Secretaries: Prof. Michael Foster and Lord Rayleigh. Foreign Secretary: Prof. Alexander William Williamson. Other Members of the Council: Prof. Henry Edward Armstrong, Henry Bowman Brady, Charles Baron Clarke, Dr. William Huggins, John Whitaker Hulke, Prof. John W. Judd, Dr. Edward Emanuel Klein, Prof. E. Ray Lankester, Prof. Herbert McLeod, Sir James Paget, Bart., William Pole, William Henry Preece, Sir Henry E. Roscoe, Dr. Edward John Routh, Prof. Arthur William Rücker, and Captain William James Lloyd Wharton, R.N.

THE Pasteur Institute, Paris, is to be opened on the 13th inst., in presence of numerous delegates of the French Academies of Science and of Medicine, and of the Medical and Scientific Faculties. President Carnot will perhaps be present.

WE regret to announce the death of the well-known geologist, Dr. Theodor Kjerulf, Professor at the University of Christiania, and Director of the Geological Survey of Norway. He died at Christiania on October 25, at the age of sixty-three. He received his appointment as Professor in 1858, and since that time has made many important contributions to geological science.