

mountains covered with snow, is surrounded by beautiful fir and other trees. We threw out our dredge but without success, neither did we see any large game, *e.g.*, steinbok or maral. The maral is a kind of stag entirely different from ours, with immense antlers, which are very rarely to be obtained, as they are considered a delicacy by the Chinese, who eat these antlers before they are quite developed, *i.e.*, in their soft, hairy state. For a pair of antlers scarcely eight inches high, the Kirghiz asked twenty rubles.

"On May 17 we left Lepsa and turned again towards the lake Ala Kul, this time to its east side. While crossing the height that closes the valley of Lepsa on the north, we mounted a peak whence we had a most beautiful view, especially of the high distant Ala Tau with its cones covered with eternal snow. On the 18th we descended into the steppe after having once more camped in yurts upon the mountains; it began to be very warm. The road leads through the steppe; it is for the greater part covered with reeds, and shows everywhere traces of boars, so we guessed to be near the lake, which we reached towards night. Numerous cranes, ducks, pelicans, gulls, and other water-fowl and moor-fowl animated the shore.

"On the 19th our road led through a grass-steppe covered with hemlock and rhubarb, and interspersed with bare alkali-soil; near the rivers were numerous 'ails' of the Kirghiz, with herds of cattle, and here and there showing some cultivation rendered possible by artificial irrigation; the Kirghiz understand perfectly the methods of damming and irrigating. Towards evening we reached the village Urdsar inhabited by Cossacks and Tartars, and continued our journey on the 20th, accompanied by a picket of twelve Cossacks from Bagti, who for ten days had been awaiting our arrival. The steppe was here by no means monotonous, it was even rendered picturesque by the view of snowy mountains around. Perhaps larks, in six or seven varieties, are the commonest birds here, besides these the black-headed wag-tail, the red-throated tit-lark, steppe-fowl, bustards, and cranes: of these mostly *grus virgo*. Wild geese (*Anser cinereus*) animate the steppe in great numbers, wherever there is stagnant water. We find our house-sparrow near the solitary yurt camp, and the swallow (*Hirundo rustica*) tries continually to build her nest on the top ring of the yurt. Where the grass is higher the quail is to be seen, and our cuckoo belongs to those birds which first greet the early morn. Everywhere we found the *Charadrius gregarius* single; the females already bringing out their young ones, are so tame that they allow you to approach within ten steps. Here we saw for the first time the saiga antelopes; they were unfortunately too shy and kept out of range. Late at night we arrived in Bagti, a clean but small military village, with barracks and soldier's houses; on May 21 we entered the Celestial empire, and advanced towards Tschugutschak, only twenty-one versts from Bagti. We passed over a hillock and the town was lying before us; we saw the brown clay walls of low, flat houses, little differing in colour from the steppe. We passed through the narrow streets, and the many-cornered bazaar (partially roofed) to the houses of the Governor-general (Dschanun) Djun, the great Barrack; all along our road we were followed by the astonished-looking faces of strange, queer figures. At the gate we had to get off our horses and, according to Chinese custom, ask permission to enter; we were then received at the hall-door by an elderly gentleman of about fifty, and introduced to his general. It was very hard to keep up a conversation, as every word had to be translated from Chinese into Kirghisian, Russian, and German, and *vice versa*; on the whole the old gentleman treated us with the well-known speeches of Chinese politeness, placing everything at our disposal, &c. We went to see the bazaar, which contained little really Chinese ware, and so we bought nothing worth mentioning; from there we went into the quarter of the Tartars and had a very good dinner with a rich Tartar, whose very pretty wife, picturesquely dressed, presided, Tamar Bey, our Kirghisian friend, a Mahometan, had to remain outside. The governor kindly offered to provide night-quarters but we declined, and proceeded on our journey before evening; we were told that the nearest yurts were only eighteen versts distant, and so I too determined to ride in spite of my great fatigue. Unfortunately the yurts were thirty versts distant instead of eighteen, moreover the Cossack who accompanied me lost his way and so we arrived after having done thirty-five versts.

"We rested now for thirty-six hours and then went on with telegas, but could not get on very quickly on account of the intense heat (100° F. at noon in the sun and 108° F. in the yurt).

"The road to Saissan led over a steppe more than 3000 feet high, bordered on both sides by mountain ranges. We were still on Chinese territory, yet near small, rapid mountain streams, we passed here and there yurt camps of the Kirghiz and Kalmucks, Russian subjects who pasture their herds quietly on Chinese ground and grow oats and rye by help of Chinese irrigation; they are unmolested by the owners of the land or the 'Tungans,' who are mortally afraid of everything called Russian. Late in the evening of May 24 we reached a plateau high up in the mountains, and rested the whole of the 25th, enjoying the cool refreshing mountain air. The place is called Bugutusai, and is a frontier picket. During summer there are twenty-five Cossacks stationed here who have to chastise immediately any inroads of the 'Tungans.' There is always a post on a pretty high mountain, whence there is a good view far into China, as far as the snow-covered heights of the Urkandscha mountains. Not far from there are great heaps of stones, the remains of Chinese frontier posts, the garrisons of which were killed this spring by the Tungans. Near our place was a small river in which were crab-like animals. Towards evening came Dr. Pander from Saissan; he is the son of the famous anatomist who, together with d'Aiton, published valuable atlases; besides refreshments he brought letters, the first which we obtained since leaving St. Petersburg. We started again early on the morning of the 26th, and descended into a plateau bordered for about fifty versts by the northernmost range of the Tarbagatai. The steppe consisted nearly throughout of gravel and stony soil hardly covered with plants; it was the most monotonous steppe we had seen so far with the exception of the pure salt steppe. The mountains by which it was surrounded gave it the appearance of a pleasant picture, but the heights danced in the heated air in a most fantastic way. After having crossed the plateau we found Aarantassas awaiting us; they brought us towards evening into Saissan, where we were most hospitably received in the house of Major Techanoff, the chief of the district who had accompanied us hither from Lepsa. The road was very good, but leads uninterruptedly through bare ravines in the fantastically weathered slate and green but treeless cones of mountains down into the steppe of the black Irtysh, bordered at the horizon by the dim snowy heights of the Altai. As soon as we reached the plain we found ourselves on the regular post-line with its verst poles. Saissan is only a military post and consists of small neat-looking houses, broad streets with canals and planted with willows. It is an important place for the trade with China, and will be more important after being made a city. Even now large camel caravans pass through Saissan providing the Chinese army with flour; therefore there is more life here than is elsewhere to be found in this region."

THE "CHALLENGER" EXPEDITION

WE publish with pleasure the following additional testimony to the value of the *Challenger* Expedition:—

To the Editor of "Nature."

20, Palmerston Place, Edinburgh, October 2, 1876.

DEAR SIR,—Perhaps you will kindly allow me through your pages to make known to my colleagues of the *Challenger* Expedition the accompanying gratifying resolution passed at the late meeting of the Naturalists and Physicians of Germany.

Believe me, yours very faithfully,

C. WYVILLE THOMSON.

To Sir Wyville Thomson, Professor of Zoology at the University, Edinburgh.

Hamburg, September 21, 1876.

THE forty-ninth meeting of German Naturalists and Physicians, the first which has taken place since the return of the expedition of the *Challenger*, has, in its general session of September 20, unanimously resolved to express its recognition and thanks to the promoters and to the members of this expedition, by which the knowledge of the physical and biological conditions of the ocean has been so greatly extended.

We have the honour to communicate to you this resolution by forwarding the accompanying extract from the Protocol, and pray you to make it known to all concerned.

The Presidents of the Forty-ninth Meeting of German Naturalists and Physicians,

SENATOR KIRCHENPAUER,
DR. DANZEL.

Extract from the Protocol of the Second General Session of the forty-ninth meeting of German Naturalists and Physicians. Hamburg, September 20, 1876.

Prof. Möbius proposed the following motion:—

GENTLEMEN,—I have had frequent occasion to allude to the great expeditions of the *Challenger* and of our *Gazelle*. I could only give you mere indications of what has been so promptly communicated to us by the leaders and scientific explorers of these expeditions, and been thus made the common property of all nations which cultivate science. This assembly of naturalists is the first which has met since the completion of the expedition of the *Gazelle*, commanded by Baron v. Schleinitz, and extending over nearly two years, and since the termination of the expedition of the *Challenger*, under the command of Nares and the scientific directorship of Thomson, after a voyage of three years and a half. I therefore take the liberty of proposing that this assembly express to the promoters and to the members of the expedition of H. M. S. *Challenger* and of H. I. M. S. *Gazelle*, its recognition and thanks for their successful labours in the domain of oceanic exploration.

The motion was then put and passed with acclamation.

I. ARTHUR F. MEYER

Secretary of the forty-ninth Meeting of German Naturalists and Physicians.

NOTES

THE fifth "Exposition des Insectes utiles et des Insectes nuisibles," arranged under the auspices of the Société Centrale d'Apiculture et d'Insectologie, has been held during the last four weeks in the Orangery of the Tuileries, and closed on Sunday. The first exhibition of the kind was held at the Palais de l'Industrie, in 1865, there was a second in 1868, and at the third, in 1872, it was determined to make it bi-annual. The society has three separate committees, one on apiculture, one on sericulture, and one on general insectology, which sit once a month, and the exhibitions are likewise divided into three corresponding sections. The section devoted to apiculture was much like the bee shows held at the Crystal and Alexandra Palaces, and included a show not only of different breeds of bees, but all appliances employed or suggested as improvements. We naturally have not in England any shows analogous to the section of sericulture as silkworm rearing is here, only an amusement and not a business. Nor, unfortunately, have we any exhibitions analogous to the section of general insectology, and here it would be well if we learnt a lesson from our French neighbours. The society is endeavouring in various ways to educate the country to a knowledge of the distinction of what insects are useful and what are destructive to crops, granaries, garden-produce, wood, textile fabrics, &c. For this purpose they encourage the formation of collections of insects, each destructive species being accompanied by an illustration of what it preys on. In this respect we are in point of quality still ahead, for the best collection there was not so good as ours at Bethnal Green, made by Mr. Andrew Murray, F.L.S. They were, however, able to show several collections, while we have but one. But besides this they use the elementary schools of the country as a channel for instruction. They offer prizes to these schools for essays and for magnified drawings of insects, the work of the pupils. On one of the tables in the exhibition, a number of the essays were exhibited, and on the walls many of the drawings were shown. The *Morning Post* in speaking of the entomological collection at the Bethnal Green Museum alluded especially to the drawings made by Mr. Andrew Murray, and suggested they should be used as copies in art schools, and that thus the information they teach would be scattered over the country. This same kind of idea is, it seems, already carried out in France. The drawings there, however, are outline pen and ink sketches only, sometimes made from the teacher's copy, sometimes the result of the pupil's own

dissections. We have in England a machinery ready at hand for teaching practical entomology, viz., the Science and Art Department. It would not be a very difficult matter to add that to the list of subjects on which teaching is given and examinations are held. Those who know how much the country loses annually by insect ravages would best estimate the value of such teaching that might be turned to practical account.

A LETTER has been received from Capt. Allen Young, of the *Pandora*, who it will be remembered was to endeavour to communicate with or bring back letters from our Arctic Expedition. Capt. Young's letter is dated Upernivik, July 19. He has absolutely nothing to tell of the expedition, as might be expected. He has every reason to believe that the weather in the far north has been favourable to progress. Capt. Young does not state what his next course is, and refers to a previous letter, not received.

OBSERVATIONS have been published by several French provincial papers on the meteor of September 24. One of the most accurate was in the *Echo du Nord*, published at Lille. The apparent diameter of the meteor is stated to have been equal to the moon in opposition; the same measure was given by M. Bamberger, the member for Dunkirk, as reported by that gentleman in a letter to M. Leverrier. The position of the meteor was below Ursa Major, on the eastern side, at 20° from the horizon for Lille. The time in Dunkirk and Lille was the same, 6h. 40m. local time, Dunkirk being a few minutes behind owing to the western longitude. The colour was almost the same, having been described as reddish-blue at Dunkirk and reddish-violet at Lille. A surgeon at Dunkirk said he had heard a hissing sound; a sound was also heard at Lille by a number of people. It was an explosion (*fracas*) according to ear-witnesses, and took place three minutes after the appearance. If correct, that observation shows a distance of about 60 kilometres. M. Leverrier is collecting and examining statements before entering into a calculation. The light was seen by him at the observatory, as reported before the French Academy of Sciences on the following day. It was seen by a number of persons in Paris. The cloud of burning matter and ashes was observed for a considerable time—at least fifteen minutes.

WE are glad to see that means have been taken to obtain subscriptions in aid of the family of the late Mr. George Smith, as a public testimonial of respect to his memory. Contributions to "The George Smith Fund" should be sent to Mr. J. W. Bosanquet, 73, Lombard Street, E. C., in the name of Sir Henry Rawlinson and Dr. Birch.

WE learn from the *Chronique de l'Acclimatation*, that in the just completed New York Aquarium immense basins have been constructed for the reception of the large cetaceans. A number of Otaries have already been received from Behring Strait, and the proprietors hope to be able to exhibit to the public the famous seal Ben Butler, which has for many years frequented the island of San Domingo, in the Bay of San Francisco; the director has offered 5,000 dollars for this curiosity. For the purpose of facilitating scientific researches, the central building contains a library of the best works in natural history, pictures, scientific journals, a laboratory, microscopes, drawing-tables, dissection-room, and all the necessary materials for modelling and photography. Finally, the establishment contains a restaurant in which will be served fish and crustaceans caught before the eyes of the consumer.

PROF. TURNER, of Edinburgh, desires us to correct a misapprehension which appears in our brief notice (*NATURE*, vol. xiv. p. 485) of his paper on the Placenta, read before Section D of the British Association at Glasgow. He states that the restriction of area in the more complicated forms of placenta