are immovable; while in some there is a very marked transparency of the integuments and a decided softness of the muscular tissues, in others neither of these facts is at all apparent. Some of the deep-sea Crustacea are beautifully phosphorescent, and in certain species this phosphorescence is not diffused but is limited to some special areas of their bodies, and in a new species, *Acantephyra pellucida* (A. M. Edw.), the feet are adorned with phosphorescent bands. We of necessity know so little of the habits of these new, strange forms, that it would be premature to draw scientific conclusions from their structure.

THE SOCIETY FOR THE BIOLOGICAL INVESTIGATION OF THE BRITISH COASTS

THE meeting which we previously announced as about to be held for the purpose of inaugurating a new society having the above title, took place last Monday in the rooms of the Royal Society, Prof. Huxley being in the chair. The meeting was large and influential. Among those present were the Duke of Argyll, the Earl of Dalhousie, Lord Arthur Russell, Sir Lyon Playfair, M.P., Dr. W. B. Carpenter, Sir Joseph Hooker, the Hon. Edward Marjoribanks, M.P., Sir John Lubbock, M.P., President of the Linnean Society, Mr. J. Blake, M.P., Sir George Nares, Dr. John Rae. Sir Joseph Fayrer, Capt. Verney, R.N., Prof. Flower, Prof. Ewart, Dr. John Evans, Prof. Bonney, Dr. Spencer Cobbold, Mr. John Murray (of the *Challenger* Office), Dr. J. Gwyn Jeffreys, Dr. Günther, Prof. Moseley, Mr. G. J. Romanes, Mr. H. C. Sorby, Mr. Francis Galton, Mr. Brady, Prof. Crofton, Mr. Dawson Williams, Prof. St. George Mivart, Mr. Busk, Dr. Sclater, Dr. Dodson (Netley), Mr. Thiselton Dyer, Mr. H. C. Burdett, Prof. Donkin, Dr. John Murie, librarian of the Linnean Society, Mr. W. H. Dallinger, Dr. A. Geikie, Mr. E. Forbes Lankester, Mr. Saville Kent, Mr. M'Lachlan, Dr. Herbert Carpenter (of Eton), Prof. Jeffrey Bell, Mr. Frank Crisp, and Prof. Ray Lankester. Letters regretting inability to attend were read from Lord Derby, the Marquis of Hamilton, Sir Thomas Dakin, Mr. Chamberlain, Mr. Burdett-Coutts, Mr. R. W. Duff, M.P., and Dr. Dohrn.

Prof. Huxley, in opening the proceedings, began by observing that the object with which the meeting had to deal was not in his hands, but in those of Prof. Lankester, who had requested that the Royal Society should foster an undertaking which promised well for the progress of science. The establishment of marine biological stations had been undertaken during the last few years by most of the civilised countries, and was, indeed, a necessary result of the great change which had taken place in the aims of biological science. The study of development began about half a century ago, and the ramifications of that inquiry, which had been extended to the mode of becoming of all live things by Mr. Darwin, had caused a complete change in the methods of biological research. In order to investigate the living being it was now no longer deemed sufficient, as in the days of our great-grandfathers, to observe its outside, or even, in the days of our grandfathers, to examine its anatomy. We have now to trace its developmental growth from the egg, and we are able to do so with a thoroughness of which no one in his young days could have had any conception. Such was one good reason for founding an institution of this kind from a purely scientific point of view. But there was another reason from another point of view which was practical. We had great fisheries and great fishery interests, and up to within the last thirty years legislation with reference to them was almost entirely haphazard, owing to our ignorance of the habits, modes of life, reproduction, and so on, of marine animals which were economically useful. If we are to have any considerable improvement in our legislation in this respect, our arguments and reasonings with a view to it must rest upon sound and exact observation. In conclusion, he wished to say with special emphasis that there was no possibility of any rivalry between the society which it was now proposed to found and another society the formation of which was announced a few days ago by H.R.H. the Prince of Wales. That society was, in the ordinary sense of the word, practical. He trusted that when both societies were established, so far from there being any conflict between their aims, they would work in concurrence to a common end.

The Duke of Argyll said the resolution which had been placed in his hands was—"That in the opinion of this meeting there is an urgent want of one or more laboratories on the British coast, similar to those existing in France, Austria, Italy, and America, where accurate researches may be carried on, leading to the improvement of zoological and botanical science, and to an increase in our knowledge as regards the food, life, conditions, and habits of British food fishes and mollusks in particular, and the animal and vegetable resources of the sea in general." The fact of their being called together to form a voluntary society to carry out these objects implied a discovery on the part of those who had taken a leading part in this matter that the work was not likely to be taken up by the Government. He was afraid that in this respect the British Government had always stood rather behind those of other countries, whether monarchical or republican. There were other agencies by which facts about food fishes would be obtained, and he instanced the researches of the President of the Royal Society, and a valuable paper recently contributed by Prof. Ewart upon one of the most important questions connected with food fishes—the spawning of the herring. When further researches of this kind should be forthcoming, it can scarcely admit of doubt that, by making us acquainted with the life-history and habits of the herring, they will serve to improve the herring fisheries. He had himself good reason to appreciate the importance of acquiring information of this kind, for in the vicinity of his own residence the fishing community was suffering distress on account of the herring having abandoned Loch Fyne without any one being able, in the present state of our knowledge, to assign the cause. Moreover, the opposition which was raised to ground-trawling in Loch Fyne, on the supposition that the practice is destructive of herring spawn, has been shown by such researches to be without any justification—the spawn having been found to adhere closely to the sea-bottom. But great as would be the probable economic nature of a marine biological station in the improvement of our fisheries, he thought that the chief object in promoting this society should be that of promoting the interests of biological science. Enlarging upon the importance of this science, he concluded by observing that the branches of it which would fall to the lot of this society to cultivate would have the advantage of avoiding contact with the question of vivisection; for he supposed that even the most susceptible of anti-vivisectionists would scarcely have their feelings touched by physiological experiments on jelly-fish.

Sir Lyon Playfair, M.P., in seconding the resolution, dwelt upon the anomaly that a country which depends so much upon its fisheries as Great Britain should hitherto have been the only Great Power which had not founded a zoological station. He then proceeded to enumerate some of the economic advantages which had been secured by such institutions elsewhere, especially in America.

Lord Dalhousie and Prof. Flower also supported the motion.

Dr. W. B. Carpenter moved:—"That it is desirable to found a society, having for its object the establishment and maintenance of at least one such laboratory at a suitable point on the coast, the resources of the laboratory

its boats, fishermen, working-rooms, &c., being open to the use of all naturalists under regulations hereafter to be determined."

Sir John Lubbock, as President of the Linnean Society and a trustee of the British Museum, in seconding this motion said he thought they owed their thanks to Prof. Lankester for the efforts he had made to found the proposed society.

Dr. Günther supported the resolution, which was passed.

Sir Joseph Hooker moved:—That this meeting does hereby agree to constitute itself such a society under the title of "The Society for the Biological Investigation of the Coasts of the United Kingdom." He dilated upon the importance of such a society to the interests of botanical science. The motion was seconded by Prof. Moseley, who appropriately called attention to the fact that most, if not all, life upon this planet was littoral in origin, and afterwards spread on the one hand to the deep sea and on the other to the land.

On the motion of Sir William Bowman, F.R.S., it was resolved that gentlemen whose names follow be requested to act as a provisional council and report to an adjourned meeting to be held on Friday, May 30, as to the constitution and organisation of the society and other matters, and in the meantime have power to admit suitable persons to the membership of the society; further, that Prof. Lankester be asked to act as secretary and Mr. Frank Crisp as treasurer *ad interim*. Those named were the Duke of Argyll, the Earl of Dalhousie, Lord Arthur Russell, the Lord Mayor, the Prime Warden of the Fishmongers' Company, the President of the Royal Society, the Presidents of the Linnean, Zoological, and Royal Microscopical Societies; Dr. W. B. Carpenter, F.R.S.; Mr. W. S. Caine, M.P., Mr. Frank Crisp, Mr. Thomas Christy, Mr. Thiselton Dyer, F.R.S., Prof. Flower, Mr. John Evans (treasurer of the Royal Society), Dr. Albert Günther, F.R.S., Sir Joseph Hooker, Prof. Michael Foster (secretary of the Royal Society), Prof. Ray Lankester, F.R.S., Prof. M. Marshall, Prof. Moseley, F.R.S., Mr. John Murray, F.R.S.E., the Rev Dr. Norman, Mr. George J. Romanes, F.R.S., Prof. Burdon Sanderson, F.R.S., Dr. Sclater, Mr. Adam Sedgwick, Mr. Percy Sladen, Mr. H. C. Sorby, F.R.S., and Mr. Charles Stewart, F.L.S.

Mr. G. J. Romanes, in seconding the motion, took occasion to observe that in his opinion one of the most important functions of the society when formed would be that of conducting researches upon invertebrate physiology. He was sure he would be but carrying with him the assent of all physiologists when he said that it is to the invertebrate forms of life that we must now look for the elucidation of many of the most fundamental problems connected with life-processes. It is in the Invertebrata that we meet with life in its least compounded state, and therefore in the state best suited to observation and experiment directed towards the solution of these fundamental problems. The sea is the great magazine of invertebrate life, and if the rich stores of material therein presented have been hitherto almost entirely neglected by physiologists, the explanation may be found in the fact that physiological research can only be conducted in well-equipped laboratories, which have been of but comparatively recent institution upon the sea-coasts of Europe and America.

Prof. Ray Lankester then moved a vote of thanks to the President of the Royal Society for taking the chair, and said it had been estimated that from 6000*l.* to 10,000*l.* would be required to start the project. He invited immediate subscriptions, payable *ad interim* to the treasurer, Mr. Frank Crisp, 6, Old Jewry, E.C. Sir Joseph Fayrer seconded the motion, and the President having briefly replied, the proceedings terminated.

NOTES

In the death of the youngest and one of the most accomplished of the Queen's sons the cause of education has sustained a loss. The Duke of Albany knew well what science meant, and on several occasions publicly expressed his sense of its value in respect of the nation's welfare, and the necessity for its introduction into our systems of education. There can be no doubt that had he lived he would have rendered service to the best interests of the country. It is so rarely that princes have the tastes and leanings of the late Royal Duke that we could ill afford to lose him.

The organising committee of Section F (Economic Science and Statistics) have arranged the following programme of subjects for discussion at the Montreal meeting of the British Association. The subjects will be distributed over the four or five days which will probably be at the disposal of the Section. Group I. Population: (1) Emigration; (2) Census results; (3) Distribution of wealth and condition of the poor. Group II. Land: (4) Agriculture; (5) Land laws; (6) Forestry. Group III. Trade: (7) Manufactures, shipping, and foreign markets; (8) Internal communication by land and water. Group IV. Finance: (9) Monetary system; (10) Public debts (Governmental and Municipal). Writers have been engaged for most of the subjects in the above programme.

We regret to announce the death, at the age of sixty-seven years, of Mr. Nicolas Trübner, the well-known publisher, who has done so much to place within the reach of the English public some of the best works in German philosophy, science, and learning. He will be missed by a wide circle of friends, among whom are many men of science, English and foreign.

The Prince of Wales has formally urged upon the Corporation and the Livery Companies to lend still further aid to the City and Guilds of London Technical Institute, which is greatly in need of funds; and the Corporation proposes to vote a further sum of 1000*l.* provided the Livery Companies subscribe the rest of the 20,000*l.* needed by the Institute.

As usual there was some pleasant talk at the Civil Engineers' dinner last week; Prof. Huxley in replying to the toast of "Science," said there was one educational aspect which was extremely instructive and important, and that was the insensible and almost unconscious education in science which was carried on upon the masses of the people by the great work of engineers and mechanicians. The work of the engineer and all who were applying the teachings of science was surrounding the population with the symbols of scientific faith.

Mr. W. Saville Kent, F.L.S., F.Z.S., has been appointed Inspector of Fisheries to the Government of Tasmania, and proceeds shortly to the scene of his new duties. The more extensive introduction and distribution of the Salmonidæ already acclimatised in Tasmanian waters, and the resuscitation by artificial culture of the once prolific but now greatly depleted oyster fisheries, are among the special subjects that will engage the attention of the newly appointed Inspector. A systematic investigation of the marine fauna, with the view of turning to profitable account those edible, indigenous forms which are as yet but little utilised for economic purposes, will likewise be initiated. It is to be hoped that the Colonial Government will recognise the fitness of the opportunity that now presents itself of establishing in this quarter of the antipodes a well-equipped if small marine observatory for the artificial cultivation and scientific observation of the habits and developmental phenomena of the many interesting types peculiar to this region, and of which, as yet, biologists possess little or no knowledge. Mr.