

THE ORBIT OF σ CORONÆ BOREALIS.—As the orbits calculated from the observations of σ Coronæ Borealis show great divergence, ranging from 200 to 800 years, Prof. Doberck has investigated this subject, and now publishes the results in No. 4051 of the *Astronomische Nachrichten*. The set of elements which he gives depends upon Herschel's measures of the angle, and shows the period to be about 1679 years, and the motion to be direct.

Prof. Doberck states that the hypothetical parallax of this system is 0".064, but the actual parallax is probably smaller, and that the mass of the system is probably greater than that of the sun.

RADIAL VELOCITIES OF CERTAIN VARIABLE STARS.—The results obtained by Prof. Frost from a series of spectrographic observations of certain variable stars (chiefly of the Algol type) are given in No. 3, vol. xxii., of the *Astrophysical Journal*.

R Canis Majoris, Z Herculis, and U Sagittæ are shown with certainty to be spectroscopic binaries, their determined velocities corresponding, in sense, to what would be expected from the phase in the light variation at the time of observation.

VARIABILITY OF THE ASTEROID (444) GYPTIS.—The variability of the apparent brightness of the minor planet (444) Gypsis is suggested by the results obtained from a series of observations made at Heidelberg and published by Dr. W. Valentiner in No. 4050 of the *Astronomische Nachrichten*.

In the same journal it is suggested, by Dr. Palisa, that the magnitude of minor planet 1905 RB is also variable.

CONFERENCE OF DELEGATES OF LOCAL SCIENTIFIC SOCIETIES.

AS it was not deemed expedient to call a meeting of the delegates of the corresponding societies of the British Association during the session in South Africa, it was arranged that a special conference should be convened subsequently in London. This meeting was held at the rooms of the Linnean Society on Monday and Tuesday (October 30 and 31), and was largely attended by representatives of various scientific societies in England, Scotland, and Ireland.

Dr. A. Smith Woodward, who presided at the conference, delivered an inaugural address rich in sympathy with the efforts of the provincial societies to further the progress of science, yet not without a word of gentle reproof to such societies as give undue prominence to the picnic element, which rather tends to the estrangement of the working naturalist. Probably the best work of the smaller societies was, in the chairman's opinion, that of instruction in the current progress of science. He suggested that it would be salutary to dwell on the unsolved problems of science, and pointed out the need of books which should treat of our ignorance rather than our knowledge, and so indicate the direction in which investigation is still urgently needed. Dr. Woodward condemned as extremely unfair the growing practice of certain societies to solicit men of scientific renown to deliver popular lectures without fee. Warm approval was expressed of the recent action of the British Association in seeking to extend its usefulness by including within its union the smaller non-publishing societies and field clubs, which will form henceforth a new class of *associated* societies distinct from the group of *affiliated* societies which publish original investigations in science.

Dr. W. Martin, of the Temple, introduced a discussion on the law of treasure trove, with the view of inducing the various local societies to assist in the preservation of antiquities found within their sphere of influence. While generally defending the law he advocated some revision, especially in the mode of its administration. He suggested that notices should be widely circulated, say at the post-offices throughout the country, explaining to the public that the finder of valuable relics would receive reasonable remuneration. In a similar way, relics like stone implements might be secured, where desirable, by the State.

Mr. Morris Colles, the director of the Authors' Syndicate, and Mr. Harold Hardy explained the present law of copyright as it affects the published proceedings of

scientific societies. The general sentiment of the meeting seemed, however, to be in favour, not of hindering in any way the re-publication of papers, but rather of encouraging the dissemination of knowledge by favouring publication, naturally with due acknowledgment of the original source of information.

Prof. G. S. Boulger read an interesting paper on the preservation of our native plants, which led to a valuable discussion. There seems no doubt that some of the rarer indigenous plants are in serious danger of extermination, not wholly through thoughtlessness on the part of the public, but partly through the cupidity of botanists—an evil which has increased since the extension of nature-study. It was proposed that legislation should ultimately be sought for the protection of certain plants, but that meanwhile a circular should be issued bringing the subject before teachers, members of field clubs, and others interested in our flora and likely to assist in its conservation.

In addition to attending the two meetings, the delegates visited the Museum of the Royal College of Surgeons under Prof. Stewart, and, on the evening of October 30, dined at the Royal Societies Club, where they were received as guests.

ZOOLOGY AT THE BRITISH ASSOCIATION.

THE work of Section D was formally opened on Wednesday, August 16, with the president's address on "The Distribution of African Fresh-water Fishes," which has already been printed in NATURE (August 24, p. 413). This was followed by a paper by Mr. L. Doncaster entitled "Recent Work on Gametogenesis and its bearing on Theories of Heredity," which took the form of a *résumé* of the most important recent work on the relation between the phenomena of nuclear division and those of heredity. It was shown that whilst ample confirmation had been obtained of Weismann's hypothesis that the chromosomes are the bearers of inherited characters, yet the most recent work on the maturation of the germ cells had demonstrated the fact that they contained a mechanism which seemed precisely adapted to bring about that segregation of characters which forms the most fundamental part of the Mendelian theory; it was difficult, therefore, to believe that the two things were unconnected. The remainder of the paper was devoted to the consideration of certain obvious difficulties standing in the way of a complete correlation.

The programme for Thursday, August 17, was opened by Dr. J. D. F. Gilchrist with a paper on cases of extensive mortality among marine animals on the South African coast, with suggestions as to their cause or causes. After narrating specific cases of enormous quantities of fish either dead, or alive but "in a stiffened condition," being thrown up on various points of the coast, the author suggested that these occurrences might be due to a peculiar feature of the Cape seas, viz. the great difference in temperature, salinity, and contents of the warm Agulhas Stream of the Antarctic drift current, and expressed the hope that his notes might be of some use in directing attention to this problem and securing additional evidence in connection therewith. The paper was followed by a demonstration of the more interesting forms in a collection of deep-sea animals shown in the museum of the South African College, special attention being devoted to certain questions, such as methods of reproduction of deep-sea fish, the significance of luminous organs, and parasitism. A short paper by Mr. A. H. Evans on the ostrich and its allies was intended to be introductory to a contribution on ostrich-farming by the Hon. Arthur Douglass, one of the pioneers of the industry in the colony. In the latter paper the writer supplied a large amount of interesting information relating to the first commencement of ostrich farming in 1867 and its growth up to the present time, the best climatic and general conditions for the industry, the results of artificial hatching as used in the early days of the industry as compared with present methods of rearing the chicks, the principal diseases of the birds, the present different methods of farming them, the growth of the export of feathers and the range of values, the improvement of the breeds by selection to obtain better feathers,