

### Northern Echinoderms and Teleostei.

VERY complete and up-to-date account of the echinoderms of the North Sea and Baltic is given by Th. Mortensen and I. Lieberkind in Lief. 12, Teil 8, Echinoderma, of Grimpe and Wagler's "Die Tierwelt der Nord- und Ostsee" (Leipzig: Akademische Verlagsgesellschaft m.b.H., 1928). In the 128 pages a large amount of information is compressed and the whole résumé is of great value. Keys similar to those already given in Dr. Mortensen's larger works facilitate the identification of species, and the illustrations are beautifully clear and generously scattered throughout the text.

There are 69 species of echinoderms in the area described, and these are all tabulated with details of distribution, depth, and the nature of the bottom on or in which they live. Echinoderms are truly marine and do not tolerate brackish water. For this reason the low salinity of the Baltic does not encourage them: few species are to be found there, and these are never common. These few are *Astropecten irregularis*, *Henricia sanguinolenta*, *Solaster papposus*, *Asterias rubens*, *Ophiura albida*, *Psammechinus miliaris*, *Echinocyamus pusillus*, *Echinocardium flavescens*, and *Thyonidium pellucidum*. However, the North Sea harbours many of the species in great abundance and from between tide-marks to deep water (more than 3000 metres) they are to be found.

Following the systematic part, the anatomy is described in detail, movement, feeding (with a large amount of attention given to physiology), and finally reproduction and larval forms. Here again, clear keys are given for the identification of the larvæ of the commoner species in all groups. The echinoderm section of "Die Tierwelt der Nord- und Ostsee" is specially valuable and one of the best parts of this most useful work.

Georg Duncker and Erna W. Mohr give a good account of the Blenniiformes, Trachiniiformes, and Gobiiformes (Teleostei, Physoclisti. 7-9. Blenniiformes, Trachiniiformes, Gobiiformes) in Lief. 12, Teil 12, g. 3 of "Die Tierwelt der Nord- und Ostsee". In the Gobiidae, *Gobius microps*, which only a few years ago was regarded as a variety of *G. minutus*, is now placed with *G. flavescens* (= *G. ruthensparri*) and *G. pictus*, whilst *G. minutus* is in a separate group. This is quite justified by the structural differences and now accepted by most systematists. Nearly all the British gobies are represented in this area, including *Aphya pellucida* and *Crystallogobius linearis* (= *C. nilssoni*), the Baltic Sea possessing a special race of *Gobius minutus*.

The eggs of the gobies are peculiarly interesting, being laid in masses, one layer thick, on shells and stones, each egg contained in a vase-like case, the shape characteristic of the species. Most of these eggs are known, the male parent watching over them until they are hatched.

In the Trachiniiformes comes the common angler, *Lophius piscatorius*, and a brief account is given of its wonderful ribbon of eggs, floating like a veil in the sea, and its well-known larval forms with figures after Smitt.

In connexion with the common blennies it is stated that neither egg nor larva is known of *Blennius gattorugine*. These are, however, both described in the *Journal of the Marine Biological Association* (vol. 12, No. 4, 1922, and vol. 14, No. 3, 1927). Also the authors assume that the pelagic larva of *Blennius pholis* is unknown, and this is also described by Ford in the first paper mentioned above.

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### University and Educational Intelligence.

LIVERPOOL.—The Lady Herdman Memorial geology building of the University will be opened on Oct. 21 by the Right Hon. Stanley Baldwin.

LONDON.—A farewell dinner to Sir Gregory Foster, who retires from the position of Provost of University College, London, at the end of this year, will be given by past and present students of the College on Friday, Dec. 20. Those wishing to attend the dinner are asked to inform Mr. B. N. Parker, honorary secretary of the Old Students' Association, at the College.

ACCREDITED universities, colleges, and other institutions for higher education and research are listed in *Bulletin*, 1929, No. 7 of the United States Bureau of Education (Washington, D.C.: Government Printing Office, 1929. 10 cents). The Bureau does not itself accredit, approve, or classify educational institutions, but performs a service of great value in making easily accessible the estimates of the various regional and national standardising agencies which have undertaken this work, and the criteria with reference to which the estimates were framed. The following associations are represented in the *Bulletin*: American Council on Education, Association of American Universities, Associations of Colleges and Secondary Schools of the Middle States and Maryland, of the Southern States, of New England and of North Central States, American Associations of Junior Colleges, of Teachers' Colleges, of Collegiate Schools of Business, of Schools and Departments of Journalism, and of Colleges of Pharmacy, Council of Medical Education and Hospitals, Dental Education Council, and American Library Association.

ORGANISATION of secondary education in two units of four years each is advocated in an article in the June issue of *School Life* by Dr. W. J. Cooper, United States Commissioner of Education. The typical American 'high school' of to-day, like its predecessors since the creation of this type of school a hundred years ago, offers courses covering four years, and more or less intermediate in standard between those of the seven or eight years of the elementary school and the traditional four-years' liberal arts college course. The rapid and continuous growth which has characterised secondary education in the United States since 1890 has radically altered the purposes of the teaching which the high schools are called upon to provide. Whereas in that year less than four per cent of the population of the appropriate ages (14-17) were enrolled in the high schools, the percentage had risen in 1926 to 47, and there has been a simultaneous rapid growth in racial heterogeneity and the complexity of the social order. Experiments in the reorganisation of the high school have been going on all over the United States, and one-sixth of all the public high schools could in 1926 be classed as 'reorganised', the commonest feature of reorganisation being a 'junior high school' embracing usually the seventh and eighth of the old elementary school grades with or without the lowest grade of the ordinary high school. Simultaneously with this downward extension of the high school has come an upward extension by the addition of 'junior colleges' offering two years of advanced work. Dr. Cooper's contention is that for the average child a secondary school organised under a 4-4 plan, allotting the first unit to the period of early adolescence and the second to that middle adolescent period in which intelligence normally reaches its climax, would prove most beneficial.