

The conference was very successful as a stimulating exchange of views and information on a subject, accounts of which have been very diffusely published and are thus difficult to collate.

At the final session a basic scheme was proposed for the classification of brackish waters which, in the opinion of the conference, would provide a useful framework of general application. It is based on zones of salinity of known biological significance and owes much to the earlier classifications of Redeke and Välikangas. Into this scheme more detailed sub-categories could be fitted to suit local conditions.

The proposed scheme is as follows :

Zone	Salinity-range (‰)
Hyperhaline	> ~ 40
Euhaline	~ 40 to ~ 30
Mixohaline	(~ 40) ~ 30 to ~ 0.5
Mixoeuhaline	> ~ 30 but less than adjacent euhaline sea
(Mixo)polyhaline	~ 30 to ~ 18
(Mixo)mesohaline	~ 18 to ~ 5
(Mixo)oligohaline	~ 5 to ~ 0.5
Limnetic (freshwater)	< ~ 0.5

For inland saline waters, it was agreed that no useful purpose could be served at present in devising

a scheme of classification based on salinity zones. They are extremely variable in composition and several factors other than salinity are of great ecological significance. Moreover, our knowledge of them is as yet comparatively slight.

Venice is obviously a very suitable as well as delightful environment for a conference on this subject and, in spite of most unfavourable weather, excursions were made in and around the Venetian Lagoon. Here the technique of fish culture known as *vallicoltura* has been practised for many centuries and it involves some interesting problems in brackish water biology.

Through the generosity and hospitality of the Mayor of Venice, of the Venetian Tourist Association, of the Consorzio Vallicoltori, of Prof. D'Ancona and Prof. Alessandro Marcello, the members of the conference were able to enjoy much more than the biology of the Lagoon and were permitted to see many things of historic and artistic interest under expert guidance.

The proceedings of the conference will be published in Venice by the Centro di Studi Talassografici.

L. C. BEADLE

THE CARNEGIE TRUST

THE fifty-sixth annual report* of the Carnegie Trust for the Universities of Scotland, covering the year 1956-57, includes the report of the Executive Committee with a summary of grants for the ninth quinquennium, October 1, 1952-September 30, 1957, the abstract of accounts for the year ended September 30, 1957, and the report upon the work of investigators, with lists of publications by scholars and recipients of grants and assisted papers. No new research scheme was introduced during the year, but those in operation have yielded satisfactory results. The block grants to universities to assist staff whose research involves travel are regarded as invaluable, and also the scheme enabling ten members of the staffs of universities to study abroad for up to twelve months, under which, in 1956-57, a geologist worked in Greenland, an archæologist in Asia Minor, a philologist in Ethiopia, a physiologist, zoologist, philosopher and surgeon in America, a biochemist and botanist in Canada and a historian in France. Assistance was given in the publication of seven manuscripts submitted by Scottish graduates or members of the staffs of Scottish universities. No fellowships were awarded, but, besides four senior scholarships, 36 scholarships were renewed and 23 awarded in June 1957. The Executive Committee is concerned to remove anomalies which have been created between Department of Scientific and Industrial Research grants and those obtainable from the Scottish Education Department on one hand and Carnegie Scholarships on the other. Repayments by former beneficiaries totalled £2,884.

The report upon the work of investigators under the research scheme during the year refers particularly to J. Y. Thomson's continued work on the numerical evaluation of the boundary layer flow past a flat plate placed lengthwise to the stream; A. V. Gold on the de Haas-van Alphen effect in conductors at high magnetic fields; Dennis Mackay on the inter-

diffusion of the ions Na^+ , H^+ and Cl^- , and also water across an ion exchange membrane; Donald Mackay on the decomposition of the peroxides of the organic acids; and Iain M. T. Davidson on the dissociation of dibenzyl, in which he determined the kinetics of the decomposition and the bond-strength of the central C—C bond. A. E. Scott in his study of the acid-base and thermal racemization of the ketols has shown that the activation energy of the former is approximately half that of the latter. I. D. R. Stevens continued work on the addition of dinitrogen tetroxide and nitryl chloride to substituted olefines and on the effects of substituents adjacent to the double bond on *cis*- and *trans*-additions, while J. F. McKellar has identified the CHO, CH and OH radicals in the flash photolysis of acetaldehyde and formaldehyde both in absence and in presence of oxygen and is now studying the kinetics of their formation.

R. Logan has studied the influence of cytoplasm on the multiplication of ribonucleic and deoxyribonucleic acids in nuclear processes, using compounds labelled with carbon-14, and also the action of ultra-violet light and X-rays, using nuclei from normal and regenerating rat-liver cells and from calf thymus. M. Los's attempts to find a general synthetic route for the β -quinindines and the β -pyrindines failed, but gave some interesting new compounds. Janet Buchanan's work on the herbarium material on the genus *Luzula* in Kew and Edinburgh is nearing completion, and Isobel C. Gardner's work on nitrogen fixation in root nodules of non-leguminous plants has shown that the American *Myrica cerifera* can be inoculated from *M. gale* and that nitrogen fixation is carried on by nodules so induced. G. K. Wallace's work on visual responses in locusts is a useful contribution to our knowledge of locust behaviour. Beatrice M. Blance's work on the origin and development of the Iberian Bronze Age and Elizabeth Burley's study on the archæological evidence for Scottish-Irish connexions in the Dark Ages are specially commended.

* Carnegie Fund for the Universities of Scotland. Fifty-sixth Annual Report (for the year 1956-57) submitted by the Executive Committee to the Trustees on 24th February, 1958. Pp. iv+73. (Edinburgh: Carnegie Trust for the Universities of Scotland, 1958.)