

**BIOLOGY****Need Fisheries Cooperation**

International cooperation in an exact scientific investigation of the resources of the sea, to raise the fisheries and allied industries from their present level of ill-informed and frequently destructive operation to a status comparable in efficiency with the meat packing and automobile industries, was the program advocated by Maurice Holland, director of the division of engineering and industrial research of the United States National Research Council, before the third Pan-Pacific Science Congress held at Tokyo.

Although the yearly production per individual worker in the fisheries was much higher in the United States than it is in other countries, the American fisheries worker shows up very poorly in comparison with American workers in other fields. This, Mr. Holland claimed, is due to a very considerable extent to the fact that the industries of the land have taken full advantage, through technology, of the data made available by science, and have adopted methods of mass production and intensive use of economical power, while the industries of the sea have adhered to a very large extent to more or less primitive methods.

The situation is strikingly indexed, Mr. Holland said, by comparing the number of men occupied in pure science with the number working in applied science. In the country at large, there are about 500 scientists engaged in pure research, while about 30,000 busy themselves in finding economic applications for the abstract results of the 500. This makes the ratio of "pure" to "applied" about 1 to 60. In the fisheries the situation is quite reversed, with many men bringing out scientific facts which the industry could use if it would, but only one technologist to every sixty pure scientists. This means, he pointed out, that there is a great mass of facts waiting for application, if only properly trained men can be found to bring their wits to bear on the problem of translating the abstract data into concrete terms that fit the working conditions.

Mr. Holland made an appeal for international action in promoting fisheries research. Fisheries, he said, are necessarily international because they pertain mainly to the seas; probably no industry is more so, with the possible exceptions

of aviation and radio. Wars have arisen out of fisheries disputes in the past, and international disagreements over fisheries will become more rather than less likely, as the increasing populations of the countries of the world press upon their food supplies. For this reason, Mr. Holland suggested the formation of an international information and research body for world fisheries, similar to one already in existence for Atlantic fisheries, which has been functioning successfully for some years.

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**ZOOLOGY****Strange Beasts Join Zoo**

Quite as fascinating in their way as the giraffes and monkeys are certain other new additions to the National "Zoo" which have just been brought back by the Smithsonian-Chrysler expedition from Tanganyika territory in Africa. These "forgotten" ones are less attractive to the children but will hold an undeniable interest for the followers of science.

There are a number of African aquatic frogs. Unlike the frogs of this country they do not hop for they never go about on land at all. They are rather small with mouse-colored backs and are distinguished by very large webbed hind feet. They live constantly in the water and often poise there motionless, balancing on their webbed hind feet.

Fifty chameleons were in the collection. They are characterized by peculiar tongues which extend for a length equivalent to the length of their bodies, tails which curl up like cork screws and eyes which operate separately from each other.

There are also strange spring-tailed lizards and monitor lizards that live on crocodile eggs. Three species of these latter were brought back.

The expedition was unfortunate in losing the pangolin, a scale-covered ant-eater which, as far as it is known, has never been kept in captivity anywhere but Africa for more than a month. The pangolin lived for four of the eight months the Smithsonian expedition lasted but died before the end of the trip. The pangolin is related to beasts of prehistoric times.

Bible readers will recognize in the hyraxes brought over with the expedition the "coney" of biblical annals. The hyrax, though only the size of a rabbit, is a near relative of the elephant, having the same toe

structure. When these animals are scared the hair on the middle of their backs stands up straight, separating itself from the rest.

An African caracal baby survived the trip much to every one's surprise for they are difficult to transport. It is probably the only one that has been brought to this country in the past fifteen years. It is a beautiful animal and has become quite tame from constant association with man since early babyhood.

Aside from the valuable additions to the zoo the expedition quite incidentally fathered another cause. F. G. Carnochan, one of the men to accompany Dr. W. M. Mann, superintendent of the zoo, made a study of the snake secret societies in Tanganyika territory and brought back for analysis many of the herbs and concoctions which the natives use in treating snake bites and various diseases. Before he left, Mr. Carnochan was initiated into one of the secret societies.

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**ANATOMY****Criminal Types Sorted**

The sort of criminal that a human being is apt to become, if he becomes a criminal at all, depends on his physical type, according to Dr. Karl Boehmer, expert on criminality of Kiel lawcourts, and Prof. Hans Kretschmer, of Marburg University.

Humanity, the two scientists explained, is divided into three racially independent types. The asthenic, long and slender, may be represented by Don Quixote, the physically weak dreamer. Jack Dempsey was cited as an example of the athletic type, which is broad and muscular. Sancho Panza, the follower of Don Quixote, was taken to represent the third type, known as pycnic, which is short, fat, and round-headed. Dangerous criminals who are difficult to influence belong to the asthenic and athletic groups, the scientists declared. Law-breakers who are not anti-social by nature, but who became criminals by circumstance are usually from the third group.

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Whale hunters are using airplanes to sight their prey.

The American rubber reclaiming industry will produce some 200,000 tons of reclaimed rubber this year.

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