information which has come to him from fishermen who ply their trade out in the Gulf of Mexico, thinks that near the center of the Gulf these great fish have a breeding ground, and that they are fairly abundant.

These sharks are most abundant around Ceylon, in the East Indies around Java, north among the Philippines and to the coasts of Japan. Recently a new habitat record in this region has been noted. Mr. J. Dewar Cumming, in his book "Voyage of the Nyanza . . . in the Atlantic and Pacific [Oceans]," London, 1892, says that at Hillsborough Island, the largest of the Coffin or Bailey group, in the Bonin Archipelago, he saw a whale shark, which ". . . must have measured 25 to 30 feet in length, and was at least eight feet across the shoulders. The color was of a bluish-gray, dotted with large white spots."

Rhineodon is, however, found most frequently around the Seychelles Islands in the western Indian Ocean, about midway betwixt the equator and the northern end of Madagascar. In 1914–15, an expedition was planned for the Seychelles to study *Rhineodon,* but had to be postponed on account of the great war. With the coming of peace, plans were again made, but in the face of the enormous rise in the cost of transportation, of living expenses and all commodities, another postponement has been necessary. In the meantime a correspondent at Mahé, Seychelles Islands, writes that *Rhineodon* is more plentiful there than ever.

For fuller information (in fact everything known) about this great fish, references may be made to papers by the writer previously published elsewhere.[1]

E. W. Gudger

American Museum of Natural History,
New York City

[1] "Natural History of the Whale Shark, *Rhineodon typus* Smith.," *Zoologica,* Scientific Publications New York Zoological Society, 1915, Vol. 1, pp. 349–389, 12 figs. "*Rhineodon typus,* the Whale Shark: Further Notes on its Habits and Distribution," Science, 1918, N. S., Vol. 48, pp. 622–27.

SCIENTIFIC EVENTS

THE SPAWNING GROUNDS OF THE EEL

The Bureau of Fisheries reports that Dr. Johannes Schmidt, a distinguished Danish scientist, has recently completed an exploring voyage across the Atlantic in the steamer *Dana,* of the Danish Commission for Marine Investigation. Dr. Schmidt, who is director of the Carlsberg Laboratory in Copenhagen, for about 15 years has been devoting special attention to the fresh-water eels of Europe and America, and is the leading authority on these interesting fishes, which are relatively much more important in western and southern Europe than in eastern America. Dr. Schmidt has made important contributions to the sea life of the eels, and during the recent cruise from Gibralter to Bermuda and the West Indies collected large numbers of larval eels, with a view to determining the spawning grounds of the European and American eels, which represent distinct but closely related species. Dr. Schmidt says:

> I think I am now able, after so many years' work, to chart out the spawning places of the European eel. The great center seems to be about 27° N. and 60° W. [southwest of Bermuda], a most surprising result, in my opinion. The American eel seems to have its spawning places in a zone west and south of the European, but overlapping. The larvæ of both species appear to pass their first youth together, but when they have reached a length of about 3 centimeters the one species turns to the right, the other to the left.

The assistance of the Bureau of Fisheries is invoked by Dr. Schmidt in obtaining further specimens of larval eels taken from waters off the American coast south of Cape Hatteras in sumer and autumn; most of the collections heretofore made in that region have been in winter when few eels are spawning.

AGRICULTURAL WORK AT THE UNIVERSITY OF NANKING

The latest annual report of the college of agriculture and forestry of the University of Nanking, China, as abstracted in the *Experi-*

ment Station Record, reports the progress made at this institution in the development and extension of its agricultural work. One of the events was the organization, late in 1918, of an agricultural experiment station. This action followed a recommendation by Professor C. W. Woodworth of the California University and Station, who was then temporarily serving at the college as special investigator and lecturer on entomology. Subsequently, several tracts of land, aggregating about 21 acres, were purchased at a cost of $9,000. About 5 acres have already been planted to mulberries for sericultural work, and the remainder is under general cultivation. The college also has the use of about 36 acres of vacant university land, though the small size and scattered nature of the various holdings constitute a serious handicap to experimental work. It is estimated that eventually at least 160 acres of adjacent land will be needed for the college farm and station.

Much of the principal work so far under way has dealt with sericulture. About $5,000 has been provided for this by the International Committee for the Improvement of Sericulture in China. The chief undertaking of the committee is to produce certified silk worm eggs by the Pasteur process and distribute them to farmers, studies at the college indicating an average incidence of disease of 66 per cent. for uncertified stock. This work was temporarily interrupted by fire, which destroyed the entire product for the year. The college is also grafting 100,000 mulberry trees for sale at cost in 1921 and 150,000 for 1922, and is carrying on experiments in the production of mulberry cuttings and studies in pruning, fertilization, culture, etc. Tests are being made on the utilization of the autumn crop of mulberry leaves, as well as breeding and selection work with silk worms. A three-month course in sericulture has been instituted, and extension work through lectures and demonstrations is contemplated.

Cotton experiments have already shown that certain foreign varieties can be successfully grown in China, though careful tests are necessary to determine the adaptability of varieties to diverse conditions. A cooperative test was organized in 1918 in eight provinces with pure seed of the standard test sets of the U. S. Department of Agriculture. The cotton improvement work is being supported by two Chinese cotton mill owners' associations and the Shanghai Anti-Adulteration Association.

Improvement of native corn by pedigree selection has been carried on for four years, and seed distribution to farmers is to be begun this spring. There has also been selection work with about 75 strains of lowland rice, 100 native and foreign strains of wheat, and about 100 varieties of fruits.

There is much interest in forestry, and about 7 acres of land are devoted to forest nurseries. A colonization project on Purple Mountain has largely developed into a reforestation demonstration.

The student enrollment has numbered about 100, of whom 42 were regular students in agriculture, 30 in forestry, and 26 in the short course of sericulture. The demand for trained graduates has exceeded the supply, notably for assistants for agricultural missionary work. There has been a marked increase in interest on the part of missionary organizations and also by a number of influential government officials.

ALL-AMERICAN CONFERENCE ON VENEREAL DISEASES

AN All-American Conference on Venereal Diseases will be held in Washington, D. C., December 6 to 11, 1920. It is under the auspices of four organizations—

The U. S. Interdepartmental Social Hygiene Board, represented by its executive secretary, Dr. Thos. H. Storey.

The U. S. Public Health Service, represented by Assistant Surgeon General C. C. Pierce.

The American Red Cross, represented by its president, Dr. Livingston Farrand, and

The American Social Hygiene Ass'n., represented by general director, Dr. Wm. F. Snow.

The conference will deal with both administrative and research problems, and will consider the attack on venereal diseases from four different aspects: