The subject of spawning, however, is one on which very little scientific information exists. In the first place, a fertilized egg of *Penaeus setiferus,* the commercial species of shrimp, has never been found, according to Dr. F. W. Weymouth, who is in charge of the biological study for the bureau. His assistant, M. J. Lindner, however, has estimated that a single shrimp may deposit or lay as many as 800,000 eggs at the single spawning during the animal's life span.

Commissioner Bell said it is expected that the combined economic and biological survey will furnish information upon which may be based conservation programs in the future, and efficient marketing in the immediate future. The bureau is said to look upon this program as one which will serve as insurance for the industry which is of first importance to Louisiana, Florida, Texas, Mississippi, Georgia and North and South Carolina.

The importance in which these states hold the shrimp fishery may be judged by the fact that Louisiana, Florida, Georgia and Texas are actively cooperating with the bureau in its biological survey.

PINNACLES NATIONAL MONUMENT

PINNACLES NATIONAL MONUMENT, California, a reservation administered by the National Park Service, has been enlarged through considerable extension of its northeastern, northwestern and southern boundaries. A proclamation legalizing the addition was signed recently by President Roosevelt. The addition comprises 5,001.78 acres, making the total area of the monument now 9,908.39 acres, more than double its former size.

Most of the grounds of the monument still lie within the County of San Benito, California, but a part of the new Chalone Mountain area lies within Monterey County.

The monument has been added to several times since first being set aside on January 16, 1908. The vast new addition will greatly facilitate administration. Besides providing additional parking space and affording better protection, it serves generally to round out the boundary to desirable proportions. The southern part of the addition, by far the most considerable, embraces beautiful Chalone Mountain. Besides its scenic attraction, this is an important breeding and grazing ground for deer.

Spires, domes, caves and subterranean passages of extraordinary grandeur distinguish this monument. Spirelike rock formations, the result of prehistoric volcanic action, provide reason for the appropriate naming of the reservation. The pinnacles rise from 600 to 1,000 feet above the canyon floors, a prominent landmark visible for many miles around. Some of the rocks are so precipitous as to be unscalable. A cave network of unusual natural attraction lies under each of the groups of rocks.

Pinnacles National Monument bears yet another feature, aside from its geological and scenic interest. It is important as one of the last strongholds and breeding places of the California condor, the largest bird in the state. Other bird life also is abundant here, due to the protection given.

THE YALE EXPEDITION TO NEWFOUNDLAND

THE Yale Geological Expedition to western Newfoundland has returned to Peabody Museum with an extensive collection of fossils, photographs and new geologic data. The expedition, under the leadership of Professor Carl O. Dunbar, of Yale, was greatly facilitated by the use of the steam yacht *Utowana,* owned by Mr. Allison V. Armour, Yale, '84, of New York City, who is a member of the advisory council of Peabody Museum. The *Utowana* has carried a number of exploring expeditions for the United States Department of Agriculture, and for Harvard and Princeton Universities. She has a length of 236 feet and is especially equipped for scientific work, with laboratory facilities and a photographic dark room.

The personnel of the expedition, in addition to Professor Dunbar, included F. Earl Ingerson, of Barstow, Texas, and Edward I. Leith, of Prince George, British Columbia, both students of geology in the Yale Graduate School; Percy A. Morris, preparator in the Peabody Museum, and Carl Owen Dunbar, Jr., a student in Hopkins Grammar School. The party left New Haven late in June, with the purpose of studying the older Paleozoic rocks along the west coast of Newfoundland, a region that Professor Dunbar has visited twice previously. During July their work was centered about Port au Port, Humber Arm of the Bay of Islands, and Cow Head Peninsula, in the southern and central portions of the west coast. During August the *Utowana* took the expedition north to Labrador for a few days' collecting, and then put the members ashore at various points in northwestern Newfoundland that would otherwise be difficult of access. In addition to this service, the yacht enabled the expedition to bring back to Peabody Museum extensive collections of fossils. Professor C. F. W. McClure, of Princeton University, and Mrs. McClure, accompanied Mr. Armour on the cruise.

The island of Newfoundland is in general a plateau of rolling relief, sloping southeastward from the Long Range Mountains, which parallel its western margin and rise to elevations of some 2,000 feet. The west side of these mountains shows a wall-like face, due to faulting, which is cut by but few streams. Between it and the sea lies a low coastal belt of about ten miles