occupied its present position in the country for a long time, perhaps almost as long as the volcanic mountains in which it lives. Its near relatives, which may have occupied other parts of Africa also, are now all extinct, and it is left alone on the Ethiopian highlands. Dr. Osgood writes:

> Africa is a land of baboons, and within that continent Ethiopia is headquarters for several of the most important species. In eastern Ethiopia, mainly in the hot lowlands, are found the hamadryas baboons which extend into the Sudan and Arabia; and in other parts of the country are found also the dog-faced baboon, closely allied to forms found throughout Central Africa. The more exclusive geladas differ markedly from other baboons. Although almost wholly terrestrial in habits, the gelada has certain peculiarities indicating a possible distant relationship to tree-living African monkeys. The gelada's legs are relatively slender and the tail fairly long. On its breast is a peculiar shield-shaped naked patch of a florid pink color.
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> The gelada rarely descends below an altitude of 6,000 feet. In the rocks and caves where it lives the temperature frequently drops to freezing. Like other baboons, it is gregarious. It is very agile and is credited with rolling boulders from a height to disconcert any animal which may be approaching.
>
> The hunting of geladas is extremely difficult, calling for much hard climbing, and many long shots. The baboons sighted on our expedition seemed always to perch on pinnacles from which, if killed, they would fall into such yawning depths below that retrieving them would be next to impossible. The help of the natives was invaluable in these places, for the ability of a barefooted Ethiopian to scale a cliff is second only to that of the baboons themselves.

## THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA

CHARLES M. B. CADWALADER, managing director of the Academy of Natural Sciences of Philadelphia, in his report for 1936 made at the one hundred and twenty-fourth annual meeting, states that the museum had the largest attendance in its history, and the greatest number of expeditions made during a single year. A program of expansion in educational cooperation with public and private schools and colleges in the Philadelphia area has been initiated.

The 181,073 visitors to the museum during 1935 represent an increase of more than 18,000 over 1934 and the 1935 attendance of school children, 37,418, an increase of nearly 23,000 over the preceding year. Of this number, more than 26,000 were Philadelphia public school pupils sent in classes by the Board of Education.

The forty-seven expeditions and field trips, to collect natural history specimens in various parts of the world, were made by friends of the academy and members of its staff. These expeditions worked in China, Tibet, Africa, Mexico, the West Indies, Guatemala, Panama, Siam, Russia, Bolivia, Alberta, Alaska, Greenland, Hawaii, Cuba, British Columbia, as well as various parts of Pennsylvania and New Jersey and in other sections of the United States.

During the year 67,000 new specimens of animals, insects, shells, plants, minerals and fossils were added to the collections, and two hundred and fifty-one of these were described by staff members as forms new to science. Seven new permanent exhibits, including the unique habitat group of Takin from West China, were installed in the museum. Sixty scientific publications by members of the academy staff were issued.

Discussing the new development program, Mr. Cadwalader said:

> The last few years have seen constantly increasing evidences of public interest in our work. The trustees have decided that in order to increase the usefulness of the academy to science it must also consider the wants of the community—that if we are to proceed at an accelerated pace in our scientific departments we must capitalize upon this interest.
>
> Accordingly, we are studying our opportunities. We have decided that there are three main divisions, which meet not only the immediate demands upon the academy and offer the greatest opportunity for service in the future, but also establish the essentials now lacking in a well-rounded program. These three divisions are first, the improvement of the museum to make it of greater educational value and also of more general interest; second, development of an active program of cooperation with Philadelphia's school children, and third, reestablishment of our department of paleontology as the first step in establishing the academy as a center of research for near-by colleges and universities.

Effingham B. Morris, president of the academy, presided at the meeting, and the following were re-elected to the Board of Trustees: R. R. M. Carpenter, Clarence H. Clark, 3rd, C. Dawson Coleman, Frank B. Foster, James E. Gowen and Effingham B. Morris. Tribute was paid to the late Prentiss N. Gray, of New York, and the late T. Charlton Henry, of Philadelphia, both of whom were members of the Board of Trustees. Announcement was made of the election of Edgar B. Howard and George D. Widener as trustees.

## EXPEDITIONS OF THE PEABODY MUSEUM OF YALE UNIVERSITY

YALE UNIVERSITY has made public a report of the research projects of the museum, which includes research in Alaska, India, South America, Central America, the United States and Russia.

Dr. Cornelius Osgood, curator of anthropology, who

has devoted his research to the Far North, has completed the third of a series of Alaskan ethnological field studies. A reconnaissance was made of the lower Yukon River between the Bering Sea to Nulato, including some comparative studies among the Eskimo at Fortuna Ledge. Most of the trip was devoted to the Ingalik, an Athapaskan-speaking tribe of Eskimo, where a surprisingly rich culture which is now being studied in detail was recorded. According to Professor Osgood, this work promises to change fundamentally the present conception of these primitive people. His study carried him into Russia, where, with the cooperation of the National Research Council, he surveyed the existing materials there which are pertinent to the knowledge of the distribution and development of the aboriginal culture which spread over the whole northwestern interior of the American continent.

The Caribbean area has been subjected to an extensive archeological survey by Dr. Froelich G. Rainey, who carried on excavations in Puerto Rico under the joint auspices of the Peabody Museum, the New York Academy of Sciences and the American Museum of Natural History. This work was rewarded by the discovery of distinct superimposed strata of remains which bring a new clarification to the position of this island in its relation to the cultures of South America and those of Central America.

In the field of oceanography, the Bingham Foundation at the Peabody Museum is now engaged in developing models of deep-sea fishes. These fishes, which undergo distortion as they are brought up from the depths of the oceans, have been seen in their natural forms only by investigators who descend in special apparatus to study deep-sea marine life. Several of the models have been completed and the work will give an indication of the predominant common forms of deep-sea fishes and of the morphologically peculiar aberrant types found only in a deep-sea environment.

The foundation, under the curatorship of Professor Albert E. Parr, is completing its study of fluctuations of shallow-water temperatures along the Atlantic coast of the United States and their possible relations to the fluctuations in the abundance and migrations of marine fishes. A project in process is the investigation of the eye and optical mechanism of the flying fishes, interesting because of their need for rapid adjustment from submarine to aerial vision.

## AERONAUTICS AND AIR-CONDITIONING AT CORNELL UNIVERSITY

EACH year an increasing number of students at Cornell University are choosing aeronautical engineering as their specialty. The university, however, does not attempt to duplicate the work of the specially equipped schools of aeronautics throughout the country. It aims to teach the fundamentals of this rapidly expanding field to a limited group of seniors some of whom may be expected to spend a year of graduate study in one of the recognized schools for aeronautics.

A small wind tunnel built by students, capable of attaining flight conditions of twenty miles an hour for a two square foot section has served for the past few years for laboratory purposes. There is now in process of design by the students a larger wind tunnel which will use a twenty-five horse power blower to deliver 80 miles an hour on a ten square foot surface of tunnel throat.

Under the direction of K. D. Wood, assistant professor of the mechanics of engineering, the work offered in aeronautics consists of an introductory course in aerodynamics, taken in the third year, followed by courses in airplane design in the fourth year. The study of aeronautical power plants is undertaken in connection with the work in automotive design.

Supplementing the class-room instruction, the facilities of the modern airport at Ithaca are being used extensively for test flights and for calculations resulting from such flights.

A number of students have gained their student pilot licenses on the field and they form the nucleus of the Cornell Flying Club, made up of fifty members. Each year the club conducts a ground school with Professor Wood in charge.

As an outgrowth of temporary courses given this year in air-conditioning, the Sibley School of Mechanical Engineering at Cornell University will offer an option for seniors in fluid flow, heat transmission, refrigeration and air-conditioning, beginning in the first semester of 1936. This new option will be given in addition to the options now available to seniors studying for the M.E. degree in steam power-plant, industrial, automotive, aeronautical and hydraulic power-plant engineering.

The official announcement points out that these courses are regarded as particularly fitting, as Willis H. Carrier, a graduate of the School of Mechanical Engineering at Cornell University with the class of 1901, has contributed greatly to the application of scientific principles in the air-conditioning. The new option will be offered by the department of heat-power engineering, and will be in charge of C. O. Mackey, assistant professor, who has spent some time with the Carrier Engineering Corporation.

## THE KANSAS CITY MEETING OF THE AMERICAN CHEMICAL SOCIETY

THE spring meeting of the American Chemical Society opens at Kansas City on April 13. The sessions will be held in the new municipal auditorium. Sev-