

year 1939-40. These are designed for continuation training and advanced experience in the clinical fields of medicine, and are divided into separate sections for general practitioners and for specialists. The hospitals affiliated with the School of Medicine are as follows: Bellevue; Hospital for Joint Diseases; Institute

of Ophthalmology; Lenox Hill; Montefiore; Mount Sinai; Margaret Hague Maternity Hospital; Neurological Institute; New York Post-Graduate Medical School; New York State Psychiatric Institute and Hospital; Presbyterian Hospital; St. Luke's; Welfare Hospital for Chronic Diseases, and Woman's Hospital.

## DISCUSSION

### THE FOUNDING OF A DEPARTMENT OF FISHES IN THE MUSEO POEY OF THE UNIVERSITY OF HAVANA

FELIPE POEY (1799-1891) was Cuba's greatest naturalist. He was made professor of natural history in the University of Havana in 1830, and in 1839 he was appointed director of the museum in the university. He published rather widely on Cuban natural history, but he is best known by reason of his excellent work on Cuban fishes. His first ichthyological contribution appeared in 1851 and his last in 1883. In the space of these thirty-two years his publications on fishes number nineteen, and of these five were stout volumes. These volumes were issued in fascicles or parts as they were finished and were then gathered into volumes with inclusive titles. If these individual parts could be counted, they would probably treble the number of Poey's separate contributions. Only by thumbing through his works could the total number of fishes described by him be ascertained. But it is said that he described *de novo* more than 230 species.

Since Poey's day the study of Cuban fishes has been carried on intermittently by various investigators from various countries. These studies have consisted mainly of descriptions of one or a few species or at best of small collections. Now, however, plans are on foot for extensive and far-reaching studies, which will recall the days of Felipe Poey. His work is to be taken up and continued by a man who has already written extensively on Cuban fishes and who bids fair to be a worthy successor of Poey.

The Museum of Zoology (Museo Poey) of the University of Havana has recently established a department of fishes for the study and preservation of the fishes of the West Indian fauna, and particularly those of the Cuban waters.

The organization and establishment of this department are due to the initiative and activities of Dr. Luis Howell Rivero, professor in the faculty of science. Dr. Rivero was for two years (1934-1936) a fellow of the Guggenheim Foundation doing research work on West Indian fishes at the Museum of Comparative Zoology at Harvard College and at the Museum of Zoology of the University of Michigan. He has had the cooperation of his colleague, Dr. Carlos G. Aguayo (also a former Guggenheim fellow), and of Dr. José

M. Cadenas, rector of the University of Havana, who has provided the necessary appropriation for the maintenance of the department.

The first great collections for the establishment of this department are the following accessions:

Fishes obtained by the "Tomas Barrera Expedition" in 1914, under the direction of Dr. Carlos de la Torre, from the University of Havana and of Dr. Paul Bartsch, of the U. S. National Museum.

Fishes obtained by Dr. Rivero in Jamaica in the spring of 1937, during a survey of the fishes of Jamaica done under the auspices of the Museum of Comparative Zoology at Cambridge, Mass., the Department of Science and Agriculture of Jamaica and the University of Havana.

Fishes obtained by the "Harvard-Havana Expedition" in the spring of 1938, and by the second expedition, March to May, 1939, under the auspices of Harvard University and the University of Havana, undertaken on board the research vessel *Atlantis*.

Besides, there are several small local collections made by Dr. Rivero, Dr. Aguayo and others, as well as many donations which have been made to the museum.

At the present moment and taking into consideration its very early stage, the department of fishes has over 50 per cent. of the species of the known Cuban fauna represented in its collections, and now that this department is prepared adequately to care for specimens, it is confidently expected that much valuable material will be presented to the Museo.

In this new department of the university, courses of lectures and laboratory work will be given by Dr. Rivero, its founder. In addition opportunities will be afforded graduate students to do research work on fishes under Dr. Rivero's immediate direction. Thus the Museo Poey of the University of Havana may be expected to become the center of work on the West Indian ichthyological fauna.

CORRESPONDENT

### A NOTEWORTHY AURORA

ON the night of August 1, 1937, there occurred an extremely spectacular display of the aurora borealis, visible, no doubt, in many of our northern states and in Canada. I watched it from the Musselshell Valley of central Montana, where I write this, and was so

impressed by its many unusual aspects that I felt a brief account of it might be of interest for permanent record. Before I could find opportunity to work up my notes for this purpose, a very fine and detailed description of what was doubtless the same phenomenon was published in *SCIENCE* by Ernest H. Cherrington, Jr., and my own contribution was allowed to lapse.

The aurora of the night of August 11 of this year, also witnessed by me from this spot, ranked with the foregoing as one of the three most magnificent I have had the good fortune to witness,<sup>1</sup> but in some particulars it was altogether unique. When first observed at about 9:20 P.M. it comprised a single sweeping auroral arch in the northern heavens, but one reared so high that it included almost half the horizon between its termini, while its vertex nearly attained the zenith. At this time it appeared from my window as a simple broad band of strong whitish light, not without a serene majesty of its own. This was little prophetic of the glory to come, yet I roused a friend, Harold M. Hill, who had never witnessed an aurora, and it was consequently our good fortune to be in the open with an unimpeded view of the entire firmament when the climax came.

The first evidence of breaking was a narrow beam or ray which appeared to the northwest just under the span. The arch then rapidly broke up, with strong cloud-like patches of light appearing to east and west, while the portion evolved into an array of luminous shafts or streamers so grouped as to seem to radiate from a roughly stellate centrum just south of the zenith in the general neighborhood of Vega. The best of the display occurred from about 9:45 to 10:00 o'clock, when the fast-changing beams and rays covered more than half the heavens, and rapidly shifting lesser flickerings were flashing all over and through the whole. At its peak nearly three fourths of the sky was illuminated, although the radiating streamers to the south of the centrum were very short, in contrast to those extending far down the northern sky and the still longer ones to east and west. Also on the south there was more of a tendency for the beams to give way to scattered, irregular spots and clouds of light than in other parts of the heavens. By this time considerable color had developed, mostly reddish, orange and pinkish brown tones which again were much more in evidence to the extreme east and west than elsewhere. After 10:00 o'clock the illumination lost its active motion and most of its color, retreating more and more into the northern sky, where it finally resolved itself into a simple diffused arch of the more usual type. This endured until we retired, and was still in evidence when I arose to look, around

1:00 A.M. and again just before dawn, though meanwhile considerable cloudiness had developed to obscure its details. I was unable to note any recurrence of the more lively pyrotechnics. As long as the first arch persisted, the northern sky remained quite dark under it, but at no time did I observe the intense contrasting *blackness* there which was so conspicuous an accompaniment of the arch of August, 1937.

It occurred to me at the time that the centering of the major display so definitely *south* of the zenith might well entail a visibility in much lower latitudes than is ordinarily the case for such phenomena. This has since received confirmation through newspaper reports, from one of which<sup>2</sup> it transpires that on this night the aurora was seen at least as far south as Summit Lookout in Cajon Pass and Lake Arrowhead in the San Bernardino Mountains of southern California, where some observers are reported to have interpreted it as the glow of a distant forest fire.

S. STILLMAN BERRY

WINNECOOK, MONTANA

#### OZONE IN THE '38 HURRICANE

DURING the hurricane on September 21, 1938, the smell of ozone was strong during the latter part of the storm. The peak of the storm was shortly after 6 P.M. (D.S.T.); the lowest barometer 28.41 (corrected) at Amherst, Mass., being at 6:05, and the highest wind velocity, 80 miles, at 6:17. During the heavy rain, about 6 to 6:30, the ozone was strong, and later, when the rain stopped, the ozone was so strong I was uncomfortable. At this time my watch said 7 o'clock. No odor of ozone was noticed in the first part of the storm nor was any noticeable in the house. My colleague in chemistry, in the Massachusetts State College, Dr. Walter S. Ritchie, independently reports similar observations.

CHARLES A. PETERS

AMHERST, MASS.

#### THE INTERNATIONAL UNION OF CHEMISTRY

COMMUNICATIONS have been received from individuals and organizations of many lands requesting advice as to whether or not they should endeavor to continue the work of the Union and its various commissions during the present chaotic condition of the world, or suspend operations until the return of peace and the general resumption of friendly international relations.

The answer to this question in the judgment of the writer should be unequivocally that the work is to go on, if possible still more actively than heretofore, not only in its local national field, but particularly in its international aspects. The Union, as its name signifies,

<sup>1</sup> For the third of these see *SCIENCE*, 44: 496, 568, 678, October and November, 1916.

<sup>2</sup> *Redlands (Calif.) Daily Facts*, August 12, 1939.