

## THE ANDES IN NORTHERN PERU

MR. N. E. PEARSON has recently returned from a trip across the Western Andes of northern Peru, where he went to collect fishes. He started in June, 1923, and went direct to Lima to secure government cooperation. After making arrangements to facilitate travel he returned to Pacasmayo, a port on the northern coast of Peru. He went by rail to Chilte and then took the regular pack train route to Cajamarca, Celendin and Balsas on the Marañon. He retraced his steps to Cajamarca, from where he descended the Crisnejas valley to Tingo de Pauca, a point on the Marañon about 25 miles above Balsas. He touched the Marañon at one other point, Guayabamba, from where he returned to Pacasmayo. On the Pacific side he collected fishes from the basin of the Rio Jequetepeque from sea level to about 4,000 feet.

The crest between the Atlantic and Pacific slopes lies at an elevation of about 12,000 feet and about 75 miles from the Pacific. A valley about three miles wide with about 9,000 feet elevation lies between the divide and the next crest east, which is higher than the continental divide. The ancient Inca town, Cajamarca, lies in the valley. A small stream runs in the valley and descends to the Marañon. Going westward after crossing the second crest the road descends rapidly to Celendin at about the elevation of Cajamarca. Celendin lies in a valley without a living stream at the time of the visit. After crossing another crest east of Celendin, the road descends very rapidly to Balsas on the Marañon. There are but two breaks in the descent where there are small valleys perched on the otherwise steep slope. Collections were made in Cajamarca and at Balsas, about 3,000 feet. There were no fishes between these two places. The Marañon at Balsas is a swift stream running in a gorge and fishing was very difficult, which probably accounts for the fact that there are no native fishermen. Fishing was more successful in the Marañon at the mouth of the Crisnejas and along that stream. This portion of the Marañon seems to be above the point reached by the large lowland fishes. Only mountain climbers and Andean fishes were taken. The boundary to lowland fishes was elsewhere found to be about 3,000 feet. A few larger lowland fishes are found in the Urubamba valley up to the bridge below Machu Picchu and in the Perené, at least to La Merced at 2,500 feet.

Not all the catch has been unpacked as yet. Those of the Cajamarca valley provide one notable species. It is *Lebiasina bimaculata*, effectively used on the Pacific slopes of Peru and Ecuador as an eradicator of yellow fever mosquitoes. There is a small subfamily of Characid fishes distinguished by

the presence of two series of teeth in the lower jaw. In one genus, *Piabucina*, the usual adipose fin of the Characidae is well developed and in *Lebiasina* not. *Lebiasina* has hitherto been taken only west of the Western Andes, *Lebiasina bimaculata* in western Ecuador and Peru, *Lebiasina multimaculata* in western Colombia in both the Atrato and the San Juan,<sup>1</sup> the former into the Atlantic, the latter into the Pacific.

The presence, therefore, of *Lebiasina bimaculata* on both sides of the Andes of Ecuador, but not at all in Colombia, is another indication that the faunas of Ecuador and Colombia are distinct and that either this species existed before the Andes of Peru attained their present height or that this species has crossed in one or both directions during the lifetime of the species.

Mr. Pearson's trip was made for the department of zoology of Indiana University. Part I of an account of the fishes of western South America<sup>2</sup> has recently been published. Part II, dealing with the fishes of Chile, is nearly ready for the press. Part III, dealing with the fishes of the Titicaca Basin, is in preparation, and the material for the fishes of the eastern slope of the Andes is collected in large part.

C. H. EIGENMANN

INDIANA UNIVERSITY

## SCIENTIFIC EVENTS

### NATIONAL PARKS

ESTABLISHMENT of additional national parks east of the Mississippi River is recommended in the Annual Report of the director of the National Park Service to the Secretary of the Interior, who writes as follows:

There should be a typical section of the Appalachian Range established as a national park, with its native flora and fauna, conserved and made accessible for public travel and its development undertaken by federal funds, the report states. An untouched section of the Everglades of Florida also is suggested as being of national park importance. The Mammoth Cave area in Kentucky is regarded as a remote possibility for a national park.

It is owned privately, administered under a will, the terms of which provide that upon the death of the last-named legatee it is to be sold at public auction to the

<sup>1</sup> The details of their distribution are given in Mem. Carnegie Museum, IX, 1922, pp. 123-125.

<sup>2</sup> The fresh-water fishes of Northwestern South America, including Colombia, Panama and the Pacific slopes of Ecuador and Peru. Mem. Carnegie Mus., Vol. IX, October, 1922 (issued January, 1923), pp. 1-346, plates I-XXXVIII, C. H. Eigenmann.