

protection for the young and no obstruction to the movements of the adults, and in consequence there is great loss of life through the quarrels of the bulls and the commotion thus caused among the others, during which the small pups are trampled under foot and many killed. In rocky places there is little loss, and about a fortnight or so after birth the pups draw out of the breeding grounds and are comparatively safe. A few young seals are drowned and a few die from disease or are killed by accidents, and a few starve from the death of their mothers and other unknown causes, but the number is not great and there is no evidence of any epidemic. All the dead seals were counted between August 6th and August 14th, or as soon as conditions would allow, and there were found 28 adult males, 131 females and 11,045 young, over 10,000 of these latter having been killed by trampling. The old bulls are killed in combat and the females by being pulled about in the struggles for their possession which take place among the bulls. The vast majority of young are killed so early in the season that by the time it is possible to enter the breeding ground they are in an advanced stage of decomposition.

In October the dead seals were again counted, and 14,343 were found starved to death, and 1,546 more in a perishing condition, all this being directly due to the killing of females at sea.

In regard to pelagic sealing, and the effects of the award of the Paris Tribunal, the conclusions are emphatically expressed, and, while there has never been any doubt on these points in the minds of those who have given them the least unprejudiced attention, it is to be hoped that some impression may be made even on prejudiced minds. The closed zone of 60 miles about the islands affords little real protection, save against raids, since the majority of seals feed at a distance of 75 to 150 miles

from the Pribilofs, and all that the sealers need do is to lie just outside the 60-mile limit and there await the coming of the seals. The selection of August as an open month is about the worst that could be made, as during that month the weather is the finest of the year and the most seals are going to and coming from the feeding grounds. The majority of seals taken at sea are females, and nursing females at that, all reports that the numbers of sexes are even approximately equal being intentionally or unintentionally false.

The nursing females are obliged to go to sea in search of food at times when the males are safe on shore or in the vicinity of the islands, and, as they are not allowed to leave their harems until impregnated, the killing of each nursing seal means the death of her pup, as well as the loss of that which would have been born during the succeeding season.

It is evident that pelagic sealing and the seal herd cannot exist together; the continuation of the one means the practical extermination of the other, and nothing short of the total cessation of pelagic sealing will enable the seals to recuperate. The closure of Bering Sea might possibly preserve the seals in their present reduced condition, but this is by no means certain, as they are exposed to capture all the way from San Francisco to the Aleutian Islands during six months of the year, and, so long as pelagic sealing is permitted at all, the fur-seal question cannot be considered as settled.

*PROPOSED EXPLORATIONS ON THE COASTS
OF THE NORTH PACIFIC OCEAN.*

THE American Museum of Natural History is about to undertake a systematic exploration of the peoples inhabiting the coasts of the North Pacific Ocean between the Amoor River in Asia and Columbia River in America. The funds for this important undertaking have been very generously

provided by Mr. Morris K. Jesup, President of the Museum, who has done so much already for the advancement of science and for furthering the work of the American Museum of Natural History. In 1895 he fitted out the Peary Relief Expedition, which extended the needed assistance to Lieut. Peary and thus resulted in important advances in our knowledge of northern Greenland and in valuable additions to the Museum. He also contributed the means for the Jesup Collection of North American woods, which is the best existing collection of North American forestry.

The explorations on the coasts of the North Pacific Ocean are intended to cover a period of six years, during which time the investigations are to be carried on in both Asia and America.

There are few problems that are of greater importance to our knowledge of the early history of the American race than its relations to the races of the Old World. The discussion of this problem has been going on for a long period, but its study has never been taken up in a systematic manner. While some investigators maintain that American culture has grown up spontaneously, others claim to recognize traces of Asiatic culture in America. Two ways of connection between the New World and the Old have been suggested: the one leading over the islands of the Pacific Ocean to South America; the other leading along the coasts of the North Pacific coast to our continent. The problem that it is proposed to take up relates to the northern area. In recent time F. Ratzel, Otis T. Mason and Franz Boas have published studies which favor the theory that an early exchange of cultural achievements took place between northeastern Asia and western America, but it cannot be said that this opinion has been established beyond doubt. It is combated notably by D. G. Brinton.

Still more doubtful is the racial relation-

ship between the peoples of Asia and America, and when Boas expressed the opinion that the peoples of British Columbia are more closely related to the Asiatic race than any other North American Indians he did not bring forward any material from the Asiatic side to sustain his assertion. The final solution of these questions requires a systematic study of the whole area. Anthropologists will appreciate the generosity of Mr. Jesup, who makes it possible to investigate this important problem energetically before the destructive influences of civilization have destroyed the primitive cultures entirely.

Our knowledge of the ethnology of the Pacific coast of Siberia is largely based upon the reports of early travelers. Steller's description of Kamchatka supplies a gap that cannot be filled to-day. The circumnavigations of the globe of the last century and of the beginning of this century have furnished us with fragmentary material from these regions, but the only contribution that can claim any great scientific value is that of Schrenck on the peoples of the Amoor. Notwithstanding this work, and the publications of Middendorf, Castrén, Schiefner and Radloff, the types of man, the languages, customs and mythologies of the whole region are practically unknown.

On the American side our information is somewhat fuller. From southern Alaska and the Aleutian Islands we have the linguistic works of Vemiaminoff, the great Russian missionary; of Dall, Pinart, Krause and Emmons. From Arctic Alaska we have mainly the work of Murdoch on the Eskimo of Point Barrow. Investigations in British Columbia have been carried on for a number of years under the auspices of the British Association for the Advancement of Science, mainly by Boas, but much remains to be done.

Work on the Pacific coast of America will be commenced this spring in fields that

have heretofore remained unexplored, and will be continued as long as important gaps in our knowledge of the ethnology of the coast remain to be filled.

The regions in which investigations are to be carried on offer many peculiar difficulties, as well on account of the severity of the climate in the northern portions of the district as on account of the multitude of tribes that inhabit these regions. While almost the whole of Siberia is inhabited by tribes akin in language and similar in type, the eastern coast is occupied by a variety of races. The same is true in America, where in the interior we find a vast sweep of country inhabited by one people, while the diversity of languages and races on the coast is almost incredible. A thorough study of all the innumerable dialects, of the customs of all the tribes and of the physical characteristics, will be required to bring order into this chaos.

The difficulties of this problem will be better appreciated when it is stated that between Columbia River and Behring Strait ten languages are found that are fundamentally distinct, and that these languages have 37 dialects which are mutually unintelligible. On the Asiatic side there are seven distinct languages spoken in at least ten dialects which are mutually unintelligible, but there may be more since our knowledge of the whole area is very meagre.

The problem of the relationship of the racial types is a very attractive one. The relations of the races of southern Alaska and British Columbia to the other North American Indians, although not quite clear, are certainly very intimate, since a gradual transition of the northwest-coast types to those of eastern North America can be established. On the other hand, their features show a decided resemblance with the Asiatic types, but the races which we find in northern Alaska are much more remote from Asiatic types than those further south. It

is, therefore, likely that extensive migrations have taken place in this whole area.

We know that great changes in the seats of population have occurred in the central parts of northern Siberia. The weaker peoples of southern regions were pushed northward and finally came to occupy the inhospitable shore of the Arctic Ocean. It will require long and patient study of the inhabitants and of the prehistoric remains of the whole region to unravel its ancient history.

Even after the time of the early migrations of races in this region there has always been opportunity for intercourse and for exchange of inventions and of other ideas. The forms of certain utensils are much alike on both coasts, thus favoring the theory that they have spread over the whole area from one center, but archaeological investigation must show how long these forms have been in use and if they were preceded by other forms of culture. The mythologies must be scanned with great care. There is no doubt that among the people of Siberia a constant interchange of tales and myths has taken place. There are indications that the current flowed across to our continent, and it will be the task of the proposed investigation to discover to what extent American and Asiatic ideas influenced each other.

The whole field of research is a vast one, and it is to be expected that the enterprise inaugurated by Mr. Jesup will lead to results which will clear up many of the obscure points regarding the early history of the American race.

THE NEW YORK STATE SCIENCE TEACHERS' ASSOCIATION.

THIS Association, which was organized last July in connection with the Buffalo meeting of the National Educational Association, held its first annual meeting in Syracuse, December 29th-31st, following the