

Name.	Rank as wrangler.	Year.
Lord Ellenborough . . . . .	3	1771
* Wollaston . . . . .	1	1783
Malthus . . . . .	9	1788
* Sir J. Herschel . . . . .	1	1813
† Peacock . . . . .	2	1813
† Whewell . . . . .	2	1816
* Sir G. B. Airy . . . . .	1	1823
* Challis . . . . .	1	1825
Willis . . . . .	9	1826
De Morgan . . . . .	4	1827
Lund . . . . .	4	1828
Snowball . . . . .	7	1828
* Cavendish (Duke of Devonshire),	2	1829
Murphy . . . . .	3	1829
* Earnshaw . . . . .	1	1831
Dean Alford . . . . .	34	1832
Archdeacon Pratt . . . . .	3	1833
* Kelland . . . . .	1	1834
† Bishop Colenso . . . . .	2	1836
Walton . . . . .	8	1836
Sylvester . . . . .	2	1837
George Green . . . . .	4	1837
Gregory . . . . .	5	1837
O'Brien . . . . .	3	1838
* Frost . . . . .	2	1839
† Bishop Goodwin . . . . .	2	1840
* Stokes . . . . .	1	1841
* Cayley . . . . .	1	1842
* Adams . . . . .	1	1843
Goodeve . . . . .	9	1843
† Parkinson . . . . .	1	1845
* Sir William Thomson . . . . .	2	1845
* Todhunter . . . . .	1	1848
Westcott . . . . .	25	1848
* Besant . . . . .	1	1850
† Watson . . . . .	2	1850
Wolstenholme . . . . .	3	1850
* Ferrers . . . . .	1	1851
* Tait . . . . .	1	1852
† Steele . . . . .	2	1852
Godfray . . . . .	3	1852
* Routh . . . . .	1	1854
{ J. C. Maxwell . . . . .	2	1854
Fawcett . . . . .	7	1856
* Aldis . . . . .	1	1861
Freeman . . . . .	5	1861
* Strutt (Lord Rayleigh) . . . . .	1	1865
W. D. Niven . . . . .	3	1866
Stuart . . . . .	4	1866
Niven (Cork) . . . . .	1	1867
† Clifford . . . . .	2	1867
† G. H. Darwin . . . . .	2	1868
* Pendlebury . . . . .	1	1870
{ Greenhill . . . . .	2	1870
J. W. L. Glaisher . . . . .	2	1871
† Lamb . . . . .	2	1872
Garnett . . . . .	5	1873
* Burnside . . . . .	2	1875
† Chrystal . . . . .	3	1875
Glazebrook . . . . .	5	1876

### THE NEGRITOS OF LUZON.

THE Ajetas, or Negritos, number over thirteen thousand, inhabiting chiefly the wooded mountains of northern, southern, and western Luzon.

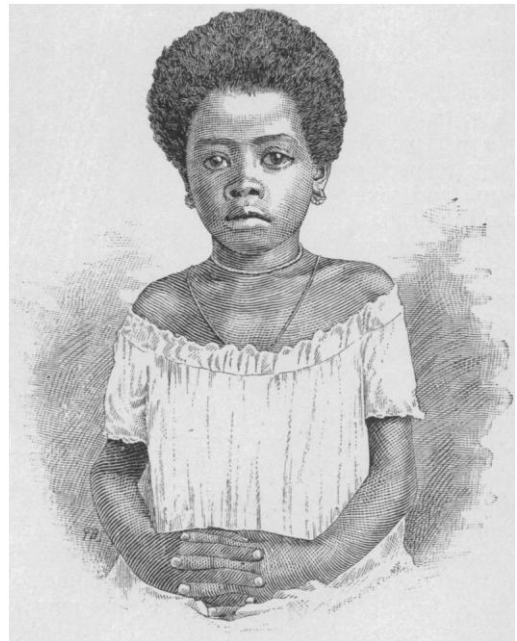
They have a dialect of their own. They are probably the aborigines of the Philippines, if not Papuans who went there from the southern groups of New Guinea at a very early period.

They are short in stature, about five feet, slim, with crisp black hair, which they wear as a bushy mop, uncombed because uncombable.

They have not the very flat nose, ugly features, thick lips, and intensely black skin of the African; but their color is dark, lighter in the dwellers in the sunless forests, the nose flattened, eyes large and restless, with the sclerotic yellowish. When young, the form is graceful; but the extremes of hunger and repletion, with their almost exclusive vegetable food, give to the adults a protuberant abdomen and lank limbs. The old women look like hags. They have no fixed habitations, but wander in bands of



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fifty to a hundred wherever the supply of food is the richest. Their voices are shrill, and their gestures and agility monkey-like.

They are skilful hunters and fishers. Their arms consist of a bamboo spear, bow and arrows, with a lance-shaped head, often smeared with a resinous poisonous compound. They go nearly naked, the only covering being a narrow band of bark around the loins. Though savage in the interior, and occasionally of necessity cannibal, when brought into contact with the civilized Indians and the priests, they become harmless and confiding. They mix with the Igorrotes and other wild tribes to such an extent that it would be difficult to find one of pure blood out of their native fastnesses. There are a few, probably hybrids, as servants in Manila, docile and trustworthy, whom it would be hard, without careful examination, to distinguish from a negro. They seem to have no religious ceremonies, or ideas of worship; but they respect old age, and venerate the dead.

There is great difference of opinion among ethnologists who have seen these Negritos, as to the race to which they belong. Semper (1869) and Davis (1870:

*Journ. anthrop. soc. Lond.*), and authors generally, class them among the Papuans. Professor Rudolph Virchow, from the examination of the few skulls brought home by Jagor and others, and in the museums of Germany, denies their affinity to the Papuans, finding the head more monkey-like in form, the glabella extraordinarily developed, the frontal prominences slight, and traces of a frontal median crest; the temporal region elevated beyond the parietal protuberances,

and not quite one-third of an inch behind the coronal suture; width at lower part of nose very great. The bones are weak and delicate, the tibiae laterally flattened, the humerus often perforated at the elbow, with a twist different from that of the European. They have undoubtedly been crossed by invasions of other tribes, both dolicocephalic (like the Malays) and brachycephalic (like the Mongolians). It is, therefore, extremely

difficult to trace any pure race characters, as is evident from the conflicting statements of ethnologists.

It seems to me that this people, the Negrito of Dr. Charles Pickering (1848), and by him, and, after him, by Semper and Müller, classed as Papuans, — or, as Wallace maintains, of Asiatic origin, like the Andaman-islanders, — must be regarded as essentially Papuans, — Asiatic Papuans, if you please; that is, a mixture of this race with the Polynesians, like the Fijians and most of the Pacific-islanders, as distinguished from the present inhabitants of New Guinea.



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And this, I think, is warranted, whether we judge by the shape of the skull, the color of the skin, or the character of the hair. If originally Papuans, they have by persecution retrograded, until now the evolutionist may find in them the nearest approach to Darwin's 'missing link.' The Negrito, in his village, is not far above such an ape as might have been the ancestor of man, with the cerebral convolutions of the orang, the skull of the chimpanzee, the limbs of the gorilla, and

the chest of the gibbon — except that he can make a fire, and cook his food. There is the skeleton of a female in the Paris 'Jardin des plantes.'

SAMUEL KNEELAND.

#### THE AMERICAN EXHIBIT AT THE LONDON FISHERIES EXHIBITION.

The opening of the great international fisheries exhibition in London brings into view some of the numerous advances which have been made by our own commission in the investigation of the fisheries of the United States. In 1880, at Berlin, the extent of its researches and the importance of its achievements, indicated by the collections which were there displayed, were deeply impressed upon the representatives of other nations, and won for it the highest meed of honor. During the three years which have since elapsed, the activity of the commission has suffered no decline; and the display now made in London is undoubtedly superior in most respects to that made at the previous exhibition. It is impossible in this place to call attention to more than a few of the salient features of the American section of the exhibition.

The preliminary catalogue opens with a classified list of the aquatic animals and plants of North America, beneficial or injurious to man. Among the mammals, we note the group of fur-seals, procured some years ago through the efforts of the Alaska commercial company, and mounted with great care, and much fidelity to nature. The group is accompanied by a series of sketches by Mr. Henry W. Elliott, illustrating the fishery. A stuffed specimen of the rare ribbon-seal (*Histiophoca equestris*) from Alaska, and a skull of the Rhytina, are also included here. A remarkable pair of walrus-tusks, each 41 inches long and weighing about 12½ pounds, loaned by the Alaska commercial company, are exhibited in this connection. The cetacean fauna of North America is well represented by casts and skulls. The aquatic fish-eating birds, including those used by the fishermen for bait, are represented by groups of mounted specimens. The staining of the feet and bills in natural colors, a feature not hitherto introduced into the taxidermy of the national collections, gives a decidedly life-like air to these groups. Most interesting among the reptiles and batrachians, perhaps, are a large leather-back turtle (*Dermatochelys coriacea*) and a collection of twenty-four species of tailed batrachians (*Siren*, *Necturus*, *Siredon*, etc.). The exhibit of fishes is, as may be expected, very comprehensive. The alco-

holic collection, selected with great care by Dr. Bean, includes over four hundred species. More than one hundred especially characteristic American fishes are represented by painted casts of a very high grade of workmanship. A series of photographs from fresh specimens, and another of engravings, both made under the direct supervision of the ichthyologists of the commission, are of especial interest to the zoölogist. During the exhibition, shipments of fresh fish will be sent to London daily by Mr. E. G. Blackford of New York. In the collection of mollusks the American oyster occupies a prominent place. By means of engravings, diagrams, and shells, the result of the latest researches upon its development, growth, and geographical distribution, are fully shown. The models of a giant squid (*Architeuthis princeps*) and of a giant octopus (*Octopus punctatus*) prepared under the direction of Mr. J. H. Emerton, have already been described in an earlier number of SCIENCE. A large series of other invertebrates — crustaceans, worms, echinoderms, and sponges — has been prepared by Mr. Richard Rathbun. Among the most interesting are a complete collection of the species of fresh-water crayfishes found in the United States, and a series of sponges illustrating artificial propagation by cuttings. The Algae of the United States are represented by a collection of marine forms by Professor Farlow, and a series of proofs of the plates of Wood's Fresh-water Algae.

The second section of the catalogue treats of the fishing-grounds, and the distribution of aquatic animals. The models and maps here included are the fruit of a vast amount of toil, and are of high scientific value. Each is worthy of detailed examination. The relief-models of the Atlantic coast and of the offshore fishing-banks have been alluded to in a previous number of SCIENCE. Among the most interesting maps may be mentioned those showing the location and extent of the present and of abandoned whaling-grounds, by Mr. A. Howard Clark; the distribution of the pinnipeds, by Mr. J. A. Allen; the distribution of the seals and other fur-bearing animals of Alaska, by Capt. William H. Dall; the distribution of certain American fishes, by Mr. G. Brown Goode; and the location and extent of the oyster-beds of the United States, by Lieut. F. Winslow.

The third and fourth sections, which are devoted to fishery apparatus, would be almost solely interesting from a technological point of view, were it not for the numerous speci-