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AMAZON.



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AMAZON.

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A M A Z O N .

Amazon, or AMAZONS (Portuguese *Amazōnas*), a river of South America, and the largest stream on the face of the globe. It is known locally by other names, such as Marañon, Orellana, Solimoens, Parana-tinga, and Parana-uassu. According to geographical usage, the name Marañon belongs properly to the more northern of its two main head-streams, rising in Lake Lauricocha (Peru) about $10^{\circ} 30'$ S. lat., $76^{\circ} 10'$ W. long. Most geographers consider this stream (frequently called the Tunguragua) as the true Amazon; but some late writers insist that the river Apurimac, or Ucayale (the more southern of the two great head-streams), is the true Amazon. The Ucayale is some 320 miles longer than the Tunguragua. It is commonly said that the river Amazon, to its remotest source, is nearly 4000 miles long; but Mr H. H. Smith asserts that at the very longest the measurement will not much exceed 3000 miles. The Upper Marañon is the only stream that breaks through the central Cordillera of Peru; but five other streams, all tributaries of the Ucayale, cut through the magnificent eastern chain of the Andes, as also does the Marañon itself. Most of the upper branches flow in deep mountain gorges, which, though much elevated, have a hot climate. East of the Cordillera the vast forest-plain is entered, which stretches from the sub-Andean foot-hills to the sea. It is a region rich in

botanical treasures, having a fertile soil and a prodigiously large rainfall. Owing to this rainfall, the country is traversed by a very great number of large navigable rivers, either direct or indirect affluents of the Amazon, and many of them scarcely known even by name to the geographer. Steam navigation has been introduced on many of the larger branches; but the natural resources of the country are very little developed.

The principal tributaries from the north are the Napo, the Putumayo, the Japurá, and the Rio Negro; from the south the Javary, the Jutahy, the Juruá, the Purus (with its great affluent the Aguiry), the Madeira (itself the recipient of mighty rivers, such as the Beni and the Mamore), the Tapajos, the Xingu, and the Tocantins, which receives the waters of the Araguay. For a considerable distance the main river forms the boundary between Peru and Ecuador; but its course lies chiefly through the northern half of Brazil, its general direction being to the NNE. Its mouth is crossed by the equator. The drainage area of the river is placed at 2,500,000 sq. m., or two-thirds the area of Europe; and the main stream and its tributaries are said to afford over 25,000 miles of water-way suitable for steam navigation. Many of the narrow side-channels, so characteristic of the Amazonian forest-plains, are navigable also, either by steamboat or by smaller craft, such as the canoes in which the india-rubber and other products of the forest are collected; and it is stated that the total length of navigable waters in the system is probably not less than 50,000 miles. There is some dispute as to whether the islands at the mouth of the river are really deltaic; but it is certain that further inland a great part

of the country is insular and river-built, and consequently of a true delta formation. In the rainy season, much of this region is subject to overflow. The main channel, at the mouth, is 50 miles wide, exclusive of the Pará mouth and the island of Joannes. The average flow of the river is placed at $2\frac{1}{4}$ miles per hour. The tides are noticed for about 400 miles up the river. The tidal phenomenon called the *bore* (here known as *Poro-roca*) is very destructive in the main channel of the lower river, near its mouth; and from this phenomenon the Indian name of the river (Amassona, 'boat-destroyer') is said to be derived. There is, however, some reason to think that the name was really derived, as stated by the older writers, from the female warriors seen by early explorers in the valley of this river. The name Marañon is derived from a voyager who visited the river in 1503; Orellana was the name of one who sailed on it in 1540.

The outflowing current of the Amazon in times of flood is sometimes perceived at a distance of 200 miles from the land. The climate of the river-valley, though hot and very damp, is greatly mitigated by its trade-winds, which blow from the east with little interruption throughout the dry season. These winds at some periods of the year become very stormy and even dangerous to unskilled boatmen. The river abounds in fish in very great variety of species, some of them of great value as food-fishes; and turtles and alligators are plentiful, as well as porpoises and manatees. The main river is fullest from March to June inclusive, and lowest in August and September. The surrounding country is very thinly peopled, and many of the native tribes are

savages of wild and degraded character. The river is open to the commerce of all nations, but trade has been impeded by import and export duties. Mention should be made of the river Cassiquiare, a stream ordinarily navigable, which flows from the Orinoco 180 miles to the Rio Negro, the largest northern tributary of the Amazon. Pará is the principal outlet by sea of the commerce of the Amazon Valley. This valley has been the field of many unsuccessful attempts at colonisation. The immense extent of its forests (almost everywhere nearly impenetrable by land on account of the enormous growth of lianas, or woody vines of countless species) has greatly hindered the progress of agriculture. Many useful and some highly valuable timber-trees grow on the river. The botany of the country is not very well known, many of the trees having flowers only on the upper branches, the lower portions being cut off from the influence of the light by the dense foliage; hence the study of the flowers is not easy. It is one of the paradoxes of the region that this forest, the largest and densest in the world, imports from North America much of its building timber, and some of the steamers on the river have found it cheaper to consume English coal than to burn the wood which grows so abundantly on every side.

One of the leading pursuits of the lower valley is the shipment to Pará of india-rubber and Brazil-nuts, which are largely collected by the Indians and the scattered colonists. But even this employment is seldom remunerative. The rubber here found is of excellent quality and high price; but the times, places, and other conditions of gathering cargoes are

extremely uncertain. The river and the forests afford to the natives all things which are required to satisfy their simple and inartificial needs; consequently no systematic industry can flourish except on a relatively small scale. The western part of the Amazon Valley is, of course, more elevated than the rest of the great forest; and between its tributary streams there are occasionally found lofty mountain-spurs, which are connected with the grand range of the Eastern Andes. This region affords quinine-yielding barks, coca, cacao, sugar, coffee, palm-wax, ipecacuanha, copaiba, sarsaparilla, vanilla, and other valuable vegetable products, and a considerable amount of gold is procured in it. The scenery is finer and the productions are more varied than in the lower valley; but the climate is not any healthier, nor is the country in general any better settled.

See Agassiz, *A Journey in Brazil* (1868); H. W. Bates, *A Naturalist on the River Amazon*; W. H. Edwards, *Fifteen Thousand Miles on the Amazon*; H. H. Smith, *Brazil, the Amazons, and the Coast* (1880); Mrs Mulhall *Between the Amazon and the Andes* (1882).

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