

ADVENTURE

Discovering True Source of the Amazon



Ucayali river basin

Polish explorer and adventurer Jacek Pańkiewicz has conclusively established the source of the Amazon River, according to the Geographical Society in Lima, Peru. Pańkiewicz shares his story with the *Voice*.

The source of the Amazon had been bedeviling geographers for 450 years. The father of modern geography, Alexander von Humboldt (1769-1859), believed the Marañón River in Peru to be the Amazon's source tributary. This remained conventional wisdom until 1934 when Peruvian Gerardo Dianderas argued for the Ucayali, also in Peru. The Ucayali is longer, further

navigable and more important historically and economically. It also has a better developed river basin. Dianderas eventually won over the geographic profession. Nature-loving adventurers began descending on the Cordillera Chila mountain range in southern Peru in strength from the mid-20th century. Unfortunately, pinpointing the source of the Ucayali demanded more than enthusiasm.

In 1969, Prof. Carlos Peñaherrera del Águila, a respected geographer, announced that the source of the Amazon was to be found where the snow from the Peruvian mountain Nevado Mismi gives birth to a stream known as Carhuasanta.

Two years later, cartographers from *National Geographic* magazine, after analyzing the extant maps, concurred. The magazine had its opinion confirmed when it sent an expedition headed by Loren McIntyre to investigate. *National Geographic's* maps were changed the next year. World-famous French explorer and researcher Jacques Cousteau backed up the magazine soon afterwards.

One of the world's last great explorations was over. Or so it was thought.

Modern hydrology has a long list of boxes to tick before anyone can claim the source of a river with certainty. The scientific community was awaiting comprehensive surveys before committing itself.

Prof. Jerzy Makowski from the University of Warsaw says that surveying a river's source and main section requires factoring in a whole range of criteria. These include flow volume, length, height above sea level, terrain morphology, river gradient, river bed cross-section, the specific flow of the river basin, river activity, and even demographic factors and regional traditions.

In July 1996, I had the pleasure of heading the first ever scientific expedition to locate the source of the Amazon. The expedition required two years' preparation and included Admiral Guillermo Faura Gaig, who had written a monumental monograph on the Amazon, Zaniel Novoa, an engineer from the Catholic University of Lima and Dr. Sergei Ushnurtsev from the Russian Academy of Sciences.

We started out by traveling upstream from the main current of the Apurimac, eliminating secondary currents in each

of its branches on the basis of the criteria mentioned earlier. After weeks of observations and several hydrological and geomorphological studies, we knew that we could resolve the riddle of the birthplace of the Queen of Rivers.

We can now say that a stream known as the Apacheta plays the key role. It flows from a mountainside which lies on the continental drainage divide and which is known as Quehuisha (latitude 15°31'05" south, longitude 71°45'55" west, 5,170 m above sea level to be precise).

The Amazon's birthplace, however, was still an ongoing controversy. A 2000 expedition organized by the National Geographic Society had noted that the Carhuasanta stream was longer. Using fragmentary observations and length as its sole criterion, it had announced that the source lay on Mismi.

This May, the Geographical Society in Lima decided to settle the issue once and for all. This institution, known for its conservatism and its popularization and development of geographical sciences, finally held that the source of the Amazon lay on Quehuisha mountain. The society's president, Dr. Santiago Antunez, added that it was usual for countries to decide on discoveries within their borders.

Antunez noted our expedition's substantial contribution to our knowledge on



Expedition members (Palkiewicz in the center)

the world's greatest river and said "It's about time the relevant publications were updated. Our institution will be doing what it can to make this important geographic fact about the Amazon generally known." Carlos Milla Batres, a publisher from Lima, was the first to update his information on the source of the Amazon when he recently amended his new geographic encyclopedia of Peru.

The Amazon's length has also been a matter of dispute ever since Spanish conquistador Francisco de Orellana discovered it in 1542. The literature is

replete with contradictory data, most of which are "one-off" and therefore have no scientific value as they fail to account for differences in water levels due to rainfall, changing course, flowing along different branches and constantly closing or opening new meanders. After collecting and collating average data over many years, scientists from Brazil's National Institute for Space Research eventually announced that the Amazon was 7,040 km, or 183 km longer than the Nile.

Photos by **Jacek Palkiewicz**
Jacek Palkiewicz is a member of the Royal Geographical Society in London